Advances in 21st Century Human Settlements

Ravi S. Singh Bharat Dahiya Arun K. Singh Padma C. Poudel *Editors*

Practising Cultural Geographies

Essays in Honour of Rana P. B. Singh



Advances in 21st Century Human Settlements

Series Editor

Bharat Dahiya, School of Global Studies, Thammasat University, Bangkok, Thailand

Editorial Board

Andrew Kirby, Arizona State University, Tempe, USA Erhard Friedberg, Sciences Po-Paris, France Rana P. B. Singh, Banaras Hindu University, Varanasi, India Kongjian Yu, Peking University, Beijing, China Mohamed El Sioufi, Monash University, Australia Tim Campbell, Woodrow Wilson Center, USA Yoshitsugu Hayashi, Chubu University, Kasugai, Japan Xuemei Bai, Australian National University, Australia Dagmar Haase, Humboldt University, Germany

Indexed by SCOPUS

This Series focuses on the entire spectrum of human settlements - from rural to urban, in different regions of the world, with questions such as: What factors cause and guide the process of change in human settlements from rural to urban in character, from hamlets and villages to towns, cities and megacities? Is this process different across time and space, how and why? Is there a future for rural life? Is it possible or not to have industrial development in rural settlements, and how? Why does 'urban shrinkage' occur? Are the rural areas urbanizing or is that urban areas are undergoing 'ruralisation' (in form of underserviced slums)? What are the challenges faced by 'mega urban regions', and how they can be/are being addressed? What drives economic dynamism in human settlements? Is the urban-based economic growth paradigm the only answer to the quest for sustainable development, or is there an urgent need to balance between economic growth on one hand and ecosystem restoration and conservation on the other - for the future sustainability of human habitats? How and what new technology is helping to achieve sustainable development in human settlements? What sort of changes in the current planning, management and governance of human settlements are needed to face the changing environment including the climate and increasing disaster risks? What is the uniqueness of the new 'socio-cultural spaces' that emerge in human settlements, and how they change over time? As rural settlements become urban, are the new 'urban spaces' resulting in the loss of rural life and 'socio-cultural spaces'? What is leading the preservation of rural 'socio-cultural spaces' within the urbanizing world, and how? What is the emerging nature of the rural-urban interface, and what factors influence it? What are the emerging perspectives that help understand the human-environment-culture complex through the study of human settlements and the related ecosystems, and how do they transform our understanding of cultural landscapes and 'waterscapes' in the 21st Century? What else is and/or likely to be new vis-à-vis human settlements - now and in the future? The Series, therefore, welcomes contributions with fresh cognitive perspectives to understand the new and emerging realities of the 21st Century human settlements. Such perspectives will include a multidisciplinary analysis, constituting of the demographic, spatio-economic, environmental, technological, and planning, management and governance lenses.

If you are interested in submitting a proposal for this series, please contact the Series Editor, or the Publishing Editor:

Bharat Dahiya (bharatdahiya@gmail.com) or Loyola D'Silva (loyola.dsilva@springer.com)

More information about this series at https://link.springer.com/bookseries/13196

Ravi S. Singh · Bharat Dahiya · Arun K. Singh · Padma C. Poudel Editors

Practising Cultural Geographies

Essays in Honour of Rana P. B. Singh



Editors Ravi S. Singh Department of Geography Faculty of Science Banaras Hindu University Varanasi, Uttar Pradesh, India

Arun K. Singh Department of Geography – MMV Banaras Hindu University Varanasi, Uttar Pradesh, India Bharat Dahiya School of Global Studies Thammasat University Pathumthani, Thailand

School of Public Leadership Stellenbosch University Stellenbosch, Western Cape, South Africa

Padma C. Poudel Central Department of Geography Tribhuvan University Kathmandu, Nepal

ISSN 2198-2546 ISSN 2198-2554 (electronic) Advances in 21st Century Human Settlements ISBN 978-981-16-6413-7 ISBN 978-981-16-6415-1 (eBook) https://doi.org/10.1007/978-981-16-6415-1

© Springer Nature Singapore Pte Ltd. 2022

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd. The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore To the vibrancy of cultural imaginations, creativity and living spirit of the human world

Foreword by Prof. Yukio Himiyama

India should be a country with extremely rich cultural traditions and heritage, yet what we know now about them in the outside world may represent only limited part of them, because considerable part of them might have been either lost or distorted during the mediaeval and colonial periods. Even in the post-colonial period, the colonial perspectives maintained their influence in academic and educational sectors. Such an attitude to their own history, culture, and heritage is said to have deterred the Indian scholars to make academic endeavours from 'insider's' point of view. Many significant and relevant cultural themes are said to have been avoided for the fear of academic/intellectual castigation.

The evolution of postmodernism and 'cultural turn' in India has proved itself to be positive response to them and its adoption opened up many windows. Professor Rana P. B. Singh realized it and utilised the opportunity; and he started exploring cultural geographies from the insiders' perspective. This turn in his academic life has proved highly rewarding in terms of his international recognition as a rooted cultural geographer of India with an open and scientific approach towards Indian cultural heritage. It led to the unfolding of invaluable ancient Indian wisdom in rituals, traditions, and sacred landscapes. Professor Singh's contributions in the field of cultural geography in general, and pilgrimage, heritage, landscape and Varanasi studies in particular, have not only enriched these fields but also have paved the way for future studies by younger generations of the Indian cultural geographers.

Professor Rana Singh has a long association with the International Geographical Union (IGU), for over four decades, to which he has been contributing in different capacities till today. The 23 essays in this volume are in consonance with his areas of interest—settlement geography, pilgrimage and tourism, heritage, religion, and landscapes. The wide spectrum of these essays provides different windows to look through and understand India and also its diasporas' culture.

The editors are congratulated for initiating, planning, designing, and executing this important enterprise; and, the contributors for taking pain to write the essays to honour Professor Rana Singh, who has been their teacher, colleague, or friend. It is hoped that this volume would not only mark a big step towards drawing Indian cultural geography from the marginal existence to the mainstream but also have positive impact on the evolution of cultural geography in other parts of the world.

Yukio Himiyama, Ph.D. Emeritus Professor Hokkaido University of Education Sapporo, Japan

President International Geographical Union (IGU)

Yukio Himiyama is Emeritus Professor of Hokkaido University of Education, Japan. He was born in Japan on 20th June 1949. He received his B.S. in physics at Tohoku University (1973), M.S. in physics at UCLA (1975) and Tohoku University (1976), and Ph.D. in geography at King's College London (1980). He started his career at HUE in 1980, and became Professor of Geography in 1989. At HUE he assumed such posts as Director of Taisetsuzan Institute of Science, Director of Centre for Lifelong Learning, and Special Advisor to the President on environmental education.

He has written and edited numerous articles and books in geography, geography education, cultural comparison, environmental sciences, environmental education, land use/cover change, lifelong learning etc. He was Honorary Theme Editor of UNESCO/EOLSS *Encyclopedia of Life Support Systems* in charge of *Regional Sustainable Development Review: Japan*.

He conducted many projects on land use and its change since the 1980s, and a recent project entitled SLUAS (Towards Sustainable Land Use in Asia) led to publication of *Exploring Sustainable Land Use in Monsoon Asia* (Himiyama ed. 2018, Springer). He also contributed to promotion of geoscience in general, and to enhancement of geographers' participation in joint works of geoscience community, such as tackling global environmental problems and geo-disasters, in particular (see *Human Geoscience*, Himiyama, Satake, Oki eds. 2020, Springer).

Professor Himiyama joined IGU activity in 1980, when he assisted International Geographical Congress 1980 Tokyo. After acting as a member of study group on land use, he established IGU-LUCC (Commission on Land Use/Cover Change) in 1996 and chaired it till 2004. He served IGU as Vice President (2010–2016), and then became the 25th President in 2016. Being the second President from Asia in IGU history, one of his priorities is promotion of geography and geography education in Asia.



Foreword by Prof. Sung-Kyun Kim

In the first glimpse of my meeting with Prof. Rana P. B. Singh during 7th ISOLA National Conference on 'Cultural Landscapes': 10-11 September 2011 at CEPT Ahmedabad (Gujarat, India), in him I found a profound scholar and a 'sage' who devoted his life for the noble cause of cultural landscapes. As followed up my trip to Varanasi, again I met him luckily and through his eyes, deeper experiences, and insights, I was enlightened to see, experience, understand, and co-shared the spirit of place (genus loci) of the several sacred sites in Varanasi and its environs. His impression was so deep that resulted to invite him as the keynote speaker in the IFLA (International Federation of Landscape Architects)-Asia Pacific Region International Symposium on 'Sustainable Rural Landscape & Planning in Asia Pacific Region'; Seoul National University, Seoul, Korea: 5-8 December 2011. His address was impressive and opened new vista of understanding Asian interconnectedness. His vision and future perspectives helped us to form an organisation on the path of this noble cause. Thus, was founded Asian Cultural Landscape Association (ACLA), to which I was nominated as a president and he joined as a vice-president; that positions we continued till 2018 when Prof. Rana P. B. Singh unanimously nominated as the president. During 2011-2019, the ACLA hold its nine international symposia in different countries (viz. Korea, Thailand, Malaysia, India, and China), and in almost all these events, he had delivered thematic keynote addresses. We have together collaborated in the International Project-'Comparative Study of Cultural Links and Ritual Landscapes between Gaya (Korea) and India': 2018–2019, sponsored by the National Research Foundation (NRF), Korea.

I personally feel honoured to write a 'foreword' for the felicitation volume dedicated to my intimate friend and collaborator, Prof. Rana P. B. Singh, who seriously studying cultural landscapes of Asia, particularly India from insiders' perspective that has earned him international recognition as a rooted dweller Indian scholar applying scientific approach in the exposition of the ancient roots of Indian cultural heritage, rituals, and sacredscapes, and ultimately searching the interconnectedness among various cultures of Asia, as illustrated in examples he cited from Korea, Japan, Nepal, China, Cambodia, Thailand, Laos, Myanmar, Malaysia, Indonesia, and Fiji. For his wide and long contributions to Indian (cultural landscape) geographies, Rana-ji deserves academic felicitation which has been finally done by his 'copilgrims'—to use his own word—from across the world. He has a long association with many international academic and learned bodies like the International Geographical Union (IGU), Asian Cultural Landscape Association, ACLA (SNU Seoul, Korea), ICOMOS, IFLA, etc. to which he has been contributing in different capacities till today. I feel happy for him at this occasion. The essays in this volume cover almost all major areas of his academic interest, viz. settlements, pilgrimage and tourism, cultural heritage, sacred landscapes, and cultural landscape studies. The contents of this volume delight me for the simple reason that they provide an opportunity to understand India and also its diasporas' culture from different perspectives. The editors must be congratulated for initiating, planning, designing, and executing this important enterprise; and, the contributors for taking pain to write the essays honouring Rana-ji who has been their 'co-pilgrims'. I congratulate him and wish for peaceful and creative life.

> Sung-Kyun Kim, Ph.D. Founding President ACLA Asian Cultural Landscape Association 2011–2017

Professor Department of Landscape Architecture College of Agriculture and Life Sciences Seoul National University Seoul, South Korea



Sung-Kyun Kim is Professor in Seoul National University, Korea and Chair in International Federation of Landscape Architects, Cultural Landscape Working Group (IFLA CL WG). Previously, he was the President of Asian Cultural Landscape Association (ACLA), Korean Institute of Landscape Architecture (KILA), and Korean Society of Rural Planning (KSRP). He was the Head of Department of Landscape Architecture, Seoul National University.

He received his Ph.D.in City and Regional Planning, Master of Arts and Master of Landscape Architecture from the University of Pennsylvania, USA; and, Bachelor of Landscape Architecture from the Seoul National University. He has taught at Seoul National University and University of Seoul for 30 years.

He was a member of National Land Policy Committee and National Planning Committee of Korea; and, Cultural Heritage Committee and Architectural Committee of Seoul Metropolitan City.

Professor Kim is the author of Winding River Village: Poetics of a Korean Landscape (ACLA Press, 2016), Landscape Architecture in Seoul (Seoul City, 1997), Computer Applied Landscape Design (Gukje, 1993), and Urban Streetscape Design (1993). He is the co-author of *New History of the Oriental Landscape Architecture* (Daega, 2016), *Walking in the World City Forests* (Iche, 2009), *Art and Landscape* (Panayotis & EM, 2001), and *Computer Application Techniques for Environmental Planning and Design* (Seongandang, 1997).

As a landscape designer, he designed Deoksugung-gil Pedestrian Street and Gyeonguiseon Linear Park which are among the most popular places in Korea. He has won several landscape design competitions. In 2010, he won IFLA APR Award for Landscape Architecture and Seoul Metropolitan City Environmental Award from Banpo Raemian Residential Complex Landscape Design.

Foreword by Asst. Prof. Prapaporn Tivayanond Mongkhonvanit

I am delighted to write a Foreword to the celebratory volume, *Practicing Cultural Geographies: Essays in Honor of Rana P. B. Singh*, co-edited by Ravi S. Singh, Bharat Dahiya, Arun K. Singh, and Padma C. Poudel. It celebrates the professional life and academic contributions of Professor Rana P. B. Singh, a leading cultural geographer, who has dedicated his life to his craft.

Professor Rana has worked on multiple aspects of Geography in general, and that of Cultural Geography in particular. He is respected by his peers, and admired by scholars, researchers, students, and his "co-pilgrims" from around the world. His academic and research work has spanned five areas of study, i.e., cultural landscapes, religion, heritage, pilgrimage and tourism, and human settlements. In the Introduction (Part 1 of the book), three chapters set the context of this festschrift, and celebrate the professional life and career of Professor Rana. In Parts 2 to 6 of the book, twenty chapters bring together rich multidisciplinary research to explore the five areas of study that have been the focus of Professor Rana's academic contributions. Taking this opportunity, I would like to extend my felicitations to Professor Rana on his distinguished academic career in practicing cultural geographies.

In the present century, the importance of culture and cultural studies cannot be overemphasized. Given its local and global relevance, the study of Cultural Geography becomes highly pertinent. Culture is an important dimension of study and research in the emerging field of Global Studies as well. From this perspective, I congratulate Ravi S. Singh, Bharat Dahiya, Arun K. Singh, and Padma C. Poudel for their timely academic initiative and enormous labor of love in putting together this historic volume.

I am impressed by the rich essays included in this significant volume. Contributed by authors and scholars based in South Asia, Southeast Asia, Northeast Asia, Australia, Europe, and North America, they bring together cutting-edge research in honor of Professor Rana. Therefore, the contributing authors are worthy of our commendations. I also congratulate Miss Varsha Dahiya on her beautiful paintings that have decorated the six "part title pages" of this important co-edited book. In closing, I thank the co-editors for giving me the opportunity to write this Foreword. I extend my best wishes to Professor Rana as well as everyone involved in the preparation of this felicitation volume.

> Asst. Prof. Prapaporn Tivayanond Mongkhonvanit Dean School of Global Studies Thammasat University Pathumthani, Thailand



Asst. Prof. Prapaporn Tivayanond Mongkhonvanit is Dean of the School of Global Studies at Thammasat University. She was Board Member of the National Council on Social Welfare of Thailand and Founding Director of Social Policy and Development (SPD) International Program at Thammasat University. Prapaporn is currently leading the SDG Lab at the School of Global Studies and is working on promoting a vital connection between localization and globalization under the sustainable development goals (SDGs).

Prapaporn lectures and conducts research in areas of developmental welfare and social protection in Asia. She has researched the connection between Thailand's welfare scheme and the informal sector, paying particular attention to 'One Town One Product' (OTOP) producers and Thailand's social entrepreneurship. Prapaporn has been a consultant at the United Nations Children's Fund (UNICEF) Regional Office for East Asia and the Pacific and the Association of Southeast Asian Nations (ASEAN). She has also conducted studies in Thailand's early childhood care and education for UN Women. Her study for United Nations Research Institute for Social Development (UNRISD) was on Thailand's universal health scheme. She had led training initiatives for the 'Girls in ICT' for the United Nations International Telecommunication Union (ICT). She has also worked on fair trade issues in Thailand, and is now researching on shared values, social bonds, social policy innovation, and the impact of the fourth industrial revolution on the marginalized groups.

Prapaporn is the recipient of Asia Society's *Asia 21 Young Leaders Award*. She holds an MA in International Relations from Victoria University of Wellington, New Zealand, and a DPhil in Social Policy from the University of Oxford, UK.

Preface

Cultural geography as a subdiscipline of geography has come a long way that is reflected by a variety of themes addressed by scholarly research works and emerging theoretical perspectives. These themes cover a wide array of cultural dimensions of environment, landscapes, spaces, places, rites and rituals, sacred journeys and many more. Further, cultural geography is constantly evolving in tune with the disciplinary shift from description to debates and critical contestations. The same nevertheless is not found developed uniformly and thus gives birth to geographies of cultural geographic knowledge creation. In the same vein, there is essential space and time lags between different locales and sites of cultural geographic knowledge production.

India, a country of ancient knowledge and living cultural traditions and practices, has not been sufficiently explored from this perspective (cf. Buttimer 2009). The Indian diaspora communities and their varied practices add further interesting dimensions to the homeland culture. Still going by the known research works, the concerned scholars seem to be unsatisfied mainly due to the marginal treatment to this subdiscipline and the lack of engagements with cultural themes in India (in general, this holds true for the other countries of the South Asian sub-continent as well). One may gauge the extent of this problem by simply referring to the feeble presence of the 'dweller Indian perspectives', as indicated by Sopher (1973/2009), which has not changed perceptibly. This fact aggravates further with cultural geography courses being offered only at a handful of university departments of geography in India—the land of incredible culture and heritage! In view of the theoretical evolution and multilayered meanings of continuing practices based on uninterrupted ancient wisdom, fresh explorations with appropriate scientific outlook are required which has been addressed by only a few scholars (see Singh and Singh 2022).

One such rare crusader is Prof. Rana Pratap Bahadur Singh (b. 1950–), known popularly as 'Rana-ji' among his friends, colleagues, admirers and followers, whom he calls his 'co-pilgrims'. He has been one of the most active members of the so-called Banaras School of Indian geography. India is a huge storehouse of cultural treasures, which are still being unearthed to this date. Rana-ji has been looking into them to construct and establish the scientific outlook of the ancient Indian wisdom and intellectual tradition that are embedded in India's cultural heritage and landscapes. He

started this journey from the study of settlement diffusion and associated theorization in his doctoral research and then moved ahead in search of richer contents in the continuing cultural tradition to which he belongs. Keeping Banaras/Kashi/Varanasi– –a few among different names by which this city is referred to in the ancient Indian texts and particularly in the Puranic texts—and his parent discipline of geography in focus, Rana-ji has been tirelessly contributing to many themes of cultural geography like geography of religions, sacred geography, pilgrimage studies, heritage planning, literary geographies, landscape planning, sacred food and religious functionaries, and many other subdisciplines of human geography. In fact, he has the credit of developing many of them particularly from the Indian perspective.

This book project was envisaged and initiated by the students, colleagues and admirers of Rana-ji to honour him with a festschrift. Further, a purpose of putting together this co-edited volume is to seek and support the cultural geographies of India in particular and that of South Asia more generally. We express our sincere gratitude to Prof. Rana P. B. Singh as we have enormously benefitted from his academic contributions, rich experience, learned suggestions and guidance throughout the preparation of this edited volume. Much before the festschrift's conceptualisation, each of us met Rana-ji in different ways and at different points in time.

Ravi Shankar's association with Prof. Rana P. B. Singh has been basically that of a teacher-and-taught since the former's undergraduate days at Banaras Hindu University during 1988–1991. Prof. Rana Singh had taught two courses to his batch of B.A. (Geography Honours) Part-III: one on human geography and the other on geographical thought. This was the beginning of a long-lasting academic relationship even after Ravi Shankar left Banaras Hindu University to join Jawaharlal Nehru University at New Delhi for further studies and research (1991–1995). With the passage of time, their relationship grew as they became academic collaborators and colleagues at the Department of Geography, Banaras Hindu University (29 October 2005 onwards). Prof. Rana Singh played the role of a mentor and guiding light which promoted the enthusiasm and interest of younger Ravi Shankar in the field of Indian social and cultural geographies. In the background of this journey, Ravi Shankar discussed the idea of bringing out a volume to honour Prof. Rana P. B. Singh, in recognition of his seminal contributions in cultural geographic studies duly recognised the world over, with his colleagues and friends, initially with Prof. Arun K. Singh followed by Prof. Bharat Dahiya and later Prof. Padma C. Poudel.

Bharat first met Prof. Rana P. B. Singh in September 1996 at Jawaharlal Nehru University, New Delhi, just before his departure to the UK for his doctoral studies at the University of Cambridge. Since then, he has been reading Rana-ji's books and papers. Bharat has immeasurably benefitted from his meetings and long discussions with Rana-ji during his several visits to Varanasi since July 2013. He felt Rana-ji's kind-heartedness when the 'maestro of cultural geography' took him on co-pilgrimages to religious and cultural heritage sites in and around Kashi—the 'eternal city'. He particularly remembers a visit to *Śri Kardameśvara Mandir* on 6 January 2017 when Rana-ji accompanied him and explained the art, architecture and the unique religious and cultural heritage features of this CE ninth-century temple situated in village Kandwa on the Panchakroshi Yatra Circuit. Similarly, Rana-ji

guided him to see the temple of *Kāla Bhairava*—located in Vishveshvarganj area of Varanasi, on 27 June 2019 through insight of clairvoyance towards understanding the interface between Sanātana Hindu iconography and Tantricism. Formally joining the Asian Cultural Landscape Association brought Bharat into a working relationship with Rana-ji. Together, both have been in cultural and historical geography, cultural landscapes, and heritage-related conferences in Lampang (Thailand, 2–5 December 2016), Seoul (Republic of Korea, 17–19 February 2019) and Varanasi (4– 5 April 2019) and New Delhi (India, 13–14 April 2019). Bharat is ever so grateful to Rana-ji for sharing his rich knowledge and experiences, and for those unforgettable moments whether they were over Banārasī *chai* (tea) in clay pots, traditional lunch in the rolling Thai countryside outside Lampang, or a field visit to the CE ninth-century Heuiyang-san Bongam-sa (Phoenix Rock Monastery) located in Mungyeong city, Republic of Korea.

It was November 1988 when Arun, an M.A. first-year student in the Department of Geography, Delhi School of Economics (University of Delhi), came across Prof. Rana P. B. Singh's name as an elder brother of Prof. R.B. Singh (1955-2021), then an emerging and enthusiastic geographer, and later the secretary general and the treasurer of the International Geographical Union (2018–2021). Rana-ji, who was famously known to be a committed student of a towering Indian geographer of his times Prof. R.L. Singh (1917–2001) and a faculty member at Banaras Hindu University, had shifted his area of research interest from traditional settlement geography to the then emerging field of cultural geography. But he could meet Rana-ji in person only in July 2007 after joining Banaras Hindu University as the reader/associate professor in Geography at Mahila Mahavidyalaya. The occasion was a teacher council meeting at the main Department of Geography, where he came across Rana-ji who introduced himself as a colleague and welcomed him to the department. Since then, they have been in interaction with each other at various fora. Rana-ji, a living legend of cultural geography in India, has influenced Arun by his embeddedness in the spirit of Indian culture, traditions and ethos, Gandhian philosophy, and the indigenous idea of sustainability putting Varanasi in the centre. This made Arun to be a part of the present felicitation volume.

Padma C. Poudel got introduced to Rana-ji in 1973 when he read the book, *Elements of Practical Geography*, co-authored by Prof. R.L. Singh and Prof. Rana P. B. Singh. At that time, young Padma was an undergraduate student at Tribhuvan University, Kirtipur (Kathmandu, Nepal). However, he had to wait till March 1993 to meet and get directly associated with Rana-ji. In that year, Padma formally enrolled in the Department of Geography at Banaras Hindu University as a doctoral candidate under Rana-ji's supervision. He received his PhD degree on the topic 'Tourist Resources and Environmental Appraisal in Pokhara Valley, Nepal' in November 1996. Due to Rana-ji's generosity, their association of 29 long years moved beyond the formal relationship of a research fellow and a supervisor as they gradually became 'co-pilgrims'—to use Rana-ji's favourite term for expressing academic and friendship bonds. Padma feels deeply influenced by Rana-ji's academic values as well as ways of looking at intimate 'life-ways'. He changed Padma's academic life as a touchstone and continues to be

a perennial source of knowledge and inspiration—indeed a driving force in the latter's academic career. Prof. Rana has deeply touched the hearts and minds of his admirers around the world, and Padma feels fortunate to be a member of the editors' team of historical volume which includes chapters related to Rana-ji's key interest areas.

This festschrift comprises 23 chapters which are organised in six sections, viz. Introduction, Landscapes, Religion, Heritage, Pilgrimage and Tourism, and Human Settlements. We are immensely grateful to all authors who have not only contributed their respective chapters but also shown tremendous patience and provided cooperation in every possible way.

For writing 'Forewords' to this felicitation volume, the editors express their profound gratitude to Emeritus Prof. Yukio Himiyama, Hokkaido University of Education, Sapporo, Japan, and former President of International Geographical Union (2016–2020); late Prof. Sung-Kyun Kim, Seoul National University, Republic of Korea, and former President of Asian Cultural Landscape Association; and Asst. Prof. Prapaporn Tivayanond Mongkhonvanit, Dean, School of Global Studies, Thammasat University, Thailand. We truly appreciate their kind words of appreciation for the academic and research work done by Prof. Rana P. B. Singh. We convey our thanks and appreciation to Dr. Pratibha Singh (wife of Ravi S. Singh) for writing a memorial note, 'Ravi S. Singh: Personal Homage and Tribute', for this volume. We are also thankful to Mr. Abhisht Adityam (son of Ravi S. Singh) for preparing a chapter based on his detailed interview with Rana-ji.

The six 'part title pages' of the book feature paintings is made by Miss Varsha Dahiya, seventh-year student at Bangkok Patana School, Thailand. She painted them on request during the course of one year from December 2019 to November 2020. The editors are most thankful to her for the six wonderful paintings that she did using multiple techniques. We wish Miss Varsha all the best for her future artistic and other endeavours!

During the process of this volume's preparation, we lost our four great friends who contributed to this volume. First of them, Prof. Sung-Kyun Kim (1956–2020), a renowned landscape architect based at Seoul National University, was very fond of Prof. Rana P. B. Singh, and worked with the latter to initiate and develop the Asian Cultural Landscape Association to the status where it is today. Second was Prof. Sudeepta Adhikari (1949–2020), an Indian (political) geographer of international repute and the former vice-chancellor of Patna University (Bihar, India). Third was Prof. R.B. Singh (1955–2021), Rana-ji's younger brother, and an old student of bachelor and master classes at Banaras Hindu University; for several years, he served as the secretary general and the treasurer of the International Geographical Union, and as the head, Department of Geography, University of Delhi (Delhi, India). Fourth was Prof. Martin J. Haigh (1950–2022), a distinguished physical geographer and a geologist at Oxford Brookes University (Oxford, UK), who worked on the Himalayas and the cultural landscapes of India and wrote some papers with Rana-ji.

The book has benefitted since its conception from the creative vision and invaluable inputs of Prof. Bharat Dahiya, who has contributed to this volume in different capacities—the co-author of two chapters, one of the editors of the volume and as Preface

the series editor of Scopus-indexed Springer book series, *Advances in 21st Century Human Settlements*.

Our sincere thanks are also due to Dr. Loyala D'Silva, Executive Editor; Mr. Sanjievkumar Mathiyazhagan, Project Coordinator; Ms. Shalini Monica Clement Selvam; Ms. Priyadharshini Subramani; and Ms. Coral Zhou, together with Springer's entire team, for their cooperation and support in the final steps of this volume's publication.

We hope this book serves the cause of promoting cultural geography in India, in particular, and around the world more generally.

The responsibility of every omission and commission lies with the editors. We, the editors, give full credit to the contributing authors and friends for making this volume possible and take the responsibility of any shortcoming which a reader may come across.

Mesha Samkrānti, Solar New Year: Śahivahana Śaka Samvata 1944 – Chaitra 24. Bihū, Pohelā Boiśākh, Puthāndu, Vaiśakhī, Pana Samkrānti, Viṣuvam (India), Songkran 2565 BE (Thailand),

Chaitra Śukla 13th–Trayodashī, Vikrama Samvata 2079: Śrī Rāma Samvata 7136.

Varanasi, India Pathumthani, Thailand Varanasi, India Kathmandu, Nepal 13-15 April 2022 Ravi S. Singh Bharat Dahiya Arun K. Singh Padma C. Poudel

References

Buttimer A (2009) Foreword. In: Singh RS (ed) Indian geography: perspectives, concerns and issues, Jaipur/New Delhi: Rawat Publications, pp ix-x

- Singh RPB, Singh RS. (2022) Cultural Geography. In: Rai SC (ed.) Progress in Indian Geography. A Country Report, 2016-2022. The IGU International Geographical Union Centennial Congress, Paris, France (July 18-21, 2022). New Delhi: Indian National Science Academy, ca pp. 121-154.
- Sopher DE (2009; first published in 1973) Towards a rediscovery of India: thoughts on some neglected geography. Reprinted In: Singh RPB (ed) Uprooting geographic thoughts in india: toward ecology and culture in 21st century. Planet Earth & Cultural Understanding Series, Pub. 1. Newcastle upon Tyne UK: Cambridge Scholars Publishing, pp 270–294

Ravi S. Singh: Personal Homage and Tribute

For inclusion in:

Ravi S. Singh, Bharat Dahiya, Arun K. Singh and P. C. Poudel, eds. (2021) *Practising Cultural Geographies: Essays in Honour of Rana P. B. Singh.* Advances in 21st Century Human Settlements Series (ISSN: 2198-2546). Singapore: Springer Nature Pte Ltd.



(late) Ravi S. Singh: Personal Homage and Tribute Pratibha Singh¹

It is so sorrowful to write a homage-tribute to my husband, Prof. Ravi S. Singh (born 8 September 1971) who passed away on 21 April 2021 (*Chaitra Shukla 9th 'Rāma Navamī*', Vikrama Samvata 2078—when devout Hindus were busy celebrating the birthday festival of Lord Rāma), due to severe affliction of COVID-19 (for obituary and his contributions, see Singh 2021a and 2021b). It has been a state

¹ Dr. Mrs. Pratibha Singh (wife of late Prof. Ravi S. Singh)

c/o Usha Apartment (Flat 101-102), Lane 5-Janaki Nagar Colony, Flyover BLW end—Badi Patia Road, PO: Bazardiha, Varanasi, Uttar Pradesh-221106, India.

of devastation that at the final verge of the above anthology, in honour of my father, the senior editor, Prof. Ravi S. Singh, is no more to see the completion of this mega project that he initiated together with three close friends—Bharat Dahiya, Arun K. Singh and Padma C. Poudel, on 22 September 2014.

I have known Ravi since 1996 when he joined as a UGC-JRF doctoral research fellow in geography at Banaras Hindu University under Prof. Rana P. B. Singh, my father. This knowingness enhanced the intimacy that resulted in our marriage on 22 May 1997 (Vaishakha Shukla 15th-Vikrama Samvata 2054, the 'Buddha Purnima'). We were happily married which generated so many reminiscences for around twenty-four years. Pleasing his parents' wish and to support them, Ravi left his research and joined as a lecturer in geography at Government Degree College at Changlang in Arunachal Pradesh on 26 December 1996. After our marriage, I shifted to Changlang where we passed our lifeworld together for about four years. For a month, I was with my parents in Varanasi where our son Abhisht Adityam was born on 26 October 1999. In Arunachal Pradesh, the serene nature, experiences of closeness with lush green forests, interaction and friendship with tribal peopleexperiencing their food habits and cultural traditions—provided a rich platform for Ravi's fertile mind that resulted in some of his publications and finally into a book (Singh 2005). On 6 March 2001, Ravi joined Kisan P.G. College at Bahraich, Uttar Pradesh. After four years at Bahraich, Ravi returned to his alma mater and joined as a reader (Associate Professor) in the Department of Geography, Banaras Hindu University, on 29 October 2005; he was promoted as the full professor on 29 October 2011 and continued in that position till his last breath. He served as an adjunct professor at the Bhojpuri Research Centre, Banaras Hindu University. He also served as an associate coordinator to the New York State Independent Colleges Consortium for Study of India (NYSICCSI) Programme in Varanasi from 1996 to 2005. During these ten years, Ravi came to Varanasi for a week or so every year; the programme was directed by Prof. Rana P. B. Singh.

He was a person who always made his best attempt to achieve balance among field observations, theoretical constructions, and links to literary interpretations. With a voracious appetite for reading and a brilliant analytical brain, Ravi made several milestones within his academic lifespan. I can cite a few of his major contributions that are broadly concerned with Indian geography and the cultural geography of India (for details, see Singh 2021a, and 2001b). Of course, while moving on the path of research, Ravi chose several flowers from different gardens, but unfortunately before the final decoration of the geo-world as cosmic integrity, the destiny took him back from this world. In a short span of only 25 years of his profound career, Ravi (1997–2021) has to his credit of publishing 103 research and review papers, one monograph (2015), seven anthologies, including this one, 25 book reviews, six INSA Review Appraisal: Progress of Geography in India and six popular articles in Hindi (see Singh 2021b). His collated and edited book on Indian Geography (2009) is the first such attempt to put varying perspectives to understand the trends and coverage of geography in India.

In his D.Litt. thesis (2020), Ravi implicitly narrated his academic journey: 'My primary research focus has been on unravelling the neglected issues, analysing

emerging dimensions and revisiting ailing older issues in Indian geography. Thus, my recent research has covered 21st-century trends in Indian geography, methodological problems, the role of geographical societies in India, mainstream practices and the problems of exclusion in them, [and] futuristic assessment of Indian geography' (Singh 2020: p. xi). He further added: 'The image and identity of geography in India appear to be dilemmatic—good compared to the disciplines of liberal arts including social sciences and poor compared to pure/hard sciences. The future does not appear promising if seen in terms of the present state of affairs, no matter whatever yardstick is used. However, there is huge potential to brighten it provided the diagnosed ailments are suitably attended to' (Singh 2020: p. xv). He was firm in his vision that, 'there still exists tremendous scope for exploratory studies in a variety of conventional and emerging areas as well, of course in understanding and appraising interconnectedness among various disciplines. Cultural geography in India can potentially contribute, while having close reciprocity and inter-disciplinary discourses, to emerging issues brought to the focus prominently by the post-colonial approach' (Singh and Singh 2022: p. 154).

Let me close this personal homage and tribute by quoting Ravi's vision: 'Positive criticism is incomplete as long as not complemented with a future agenda. And, the future agenda again should not be high-pedestaled and merely prescriptive. Rather it needs to be practice-able in a sustainable manner to ameliorate Indian geography from its alleged, and rightly to a great extent, the status of the poor copy of western models and to make a clear identity of its own. ... The 21st century is fertile with many post-isms—an opportunity for building and exerting identity free from external biases—which the Indian Geography can benefit from' (Singh 2020: p. 251).

To our dear beloved one Ravi! We will follow the path and the light you have shown to us on the line of the sacred vision of the Vedic text, the *Brihadāraņyaka Upaniṣad* (1.3.27-28): *Asato mā sad gamaya; Tamaso mā jyotir gamaya; Mrityor mā amritam gamaya; Om Shānti Shānti Shāntih.* . 'From ignorance lead me to the Truth, From darkness lead me into Light, From death lead me into Immortality, *Om Peace, Peace, and ultimate Peace.*'

References

Singh RS (2005) Paths of development in Arunachal Pradesh. New Delhi: Northern Book Centre Singh RS. ed (2009) Indian geography: perspectives, concerns and issues. Jaipur/ New Delhi: Rawat Publications

- Singh RS (2020) The status of indian geography in the 21st century: a contextual analysis. Unpublished D.Litt. dissertation in Geography, Banaras Hindu University, Varanasi, India
- Singh RPB (2021a) Prof. Ravi SS (1971–2021): The Legacy and Memorials. Space and Culture, India, (ACCB Publishing, England, ISSN: 2052-8396), vol. 9: 1 (June): 149–156. https://doi. org/10.20896/saci.v9i1.1202

Singh RPB (2021b) Prof. Ravi S. Singh (1971–2021): The Legacy, Contributions & Vision; Ref. R036.21, https://banaras.academia.edu/RanaPBSINGH/Papers Singh RPB, Singh RS (2022) Cultural geography. In: Rai SC (ed) Progress in indian geography. A Country Report, 2016-2022. The IGU international geographical union centennial congress, Paris, France (July 18-21, 2022). New Delhi: Indian National Science Academy, ca pp 121–154



Pratibha Singh (b. 1 Jan. 1976), M.A., Ph.D. (Ancient Indian History) has devoted her life to promoting quality and deeply rooted education to orphan and neglected children through a distinct school, Asha Deep Vidyashram (Varanasi), and is serving as an Ambassador to RWYC—Reconnecting With Your Culture program (--a charter of Euro-Comm. & UNESCO). She has published a monograph, *Shiva-Kashi: The Puranic and Present Contexts* (2004), and a half a dozen papers on the religious land-scapes of Varanasi together with her husband Prof. Ravi S. Singh. She has also presented papers in the seminars. She lives with her parents and takes care of them.

Contents

Introduction

Introduction: Essays in Honour of Rana P. B. Singh Ravi S. Singh, Bharat Dahiya, Arun K. Singh, and Padma C. Poudel	3
Rana Pratap Bahadur Singh, 'Rana-Ji': Academic Contributions,Professional Career and RecognitionRavi S. Singh and Bharat Dahiya	25
Making of a Dweller Indian Cultural Geographer: In Conversationwith Professor Rana P. B. SinghAbhisht Adityam and Rana P. B. Singh	59
Landscapes	
Theoretical Perspectives on Landscape Perception Prem Chhetri and Anjali Chhetri	85
Sacredscapes vis-à-vis Faithscapes: Cultural Landscapes of Ayodhya, a Holy-Heritage City of India Sarvesh Kumar	111
Char Landscape of the Brahmaputra Riverine Tract, Assam:Elements of Evolution and Cultural EcologyAbani Kumar Bhagabati and Nityananda Deka	141
Re-connecting Communities with Public Spaces: A Proposal for Rejuvenation of Sacred <i>Kunds</i> in the Historic City of Varanasi Sarbeswar Praharaj	167
Religion	
The Priesthood of the Temple of Vithobā in Pandharpur, Maharashtra Erik Reenberg Sand	193

Conten	ts

Geographical Spread of Hindu Religion and Culture into the West Martin J. Haigh	209
Geographical Patterns of Indigenous Religious Belief Systems in Northeast India: A Case Study Ravi S. Singh	241
Heritage	
Kautilya's Political Geography—Concepts and Ideas: An Example of Ancient Indian Geographical Thinking Sudeepta Adhikari	257
Genealogy and Its Role in Matrimony: A Study of <i>Panji</i> System of Mithila Region, Bihar (India) Ravi S. Singh and Sugandh	299
The Two Faces of Bodhgayā Nikhil Joshi	315
Local Knowledge Education on School Students and Vernacular Landscape Identity Promoting: A Case of Dongshan Town, Suzhou, China Juncheng Dai, Shangyi Zhou, Ruihong Zhang, and Shunying Tang	345
The Misings of Assam in the Midst of Tradition and Modernity: A Comparative Study of Selected Rural and Urban Areas Pahari Doley and Bimal Kumar Kar	369
Pilgrimage and Tourism	
Lumbini, Nepal: The Birthplace of Buddha and the Powerful Place of Pilgrimage in the World Padma C. Poudel	403
Pañcakrośī Yātrā of Varanasi: Symbolic Manifestationof the Spatial to the SpiritualVandana Sehgal	431
Cultural Tourism-Based Regional Development in Rajasthan, India R. B. Singh and Ajay Kumar	453
Baul-Sufi Interface and Cultural Tourism: A Study in NorthernRarh of West Bengal, IndiaPremangshu Chakrabarty and Tushar Mandal	467
Human Settlements	
Cultural Images of Kolkata: A Contemporary Perspective L. N. Satpati	487

Contents

Situating Animals in the Aesthetics of a Global City: Stray Cattle and Dairy Farmers in Delhi, India Pratyusha Basu	511
Urban Sanitation in Indian Cities: Reflections from Varanasi Arun K. Singh	537
Perspective on Agricultural Land Use Trajectory in the Peri-Urban Interface of a Developing Economy: A Case of Aligarh City Nasrin Banu and Shahab Fazal	559

Editors and Contributors

About the Editors



Ravi S. Singh received higher education from B.H.U. (B.A. Hons), J.N.U. (M.A. and M.Phil.), and J.P.U. (Ph.D.). His doctoral research is in geography of sacred places dealing with goddess places in India. With over 22 years of teaching experience at different institutions, he is currently a professor at the Dept. of Geography and Adjunct Faculty: Bhojpuri Study Centre, Banaras Hindu University. He has authored/edited nine books published from India and abroad, including two in press. Over 100 academic works of different genres of Prof. Singh, many of them cross-disciplinary, are published internationally as well as nationally in reputed journals and research series from the UK, Japan, Germany, Sweden, Nepal, etc. including one in impact factor journal. Associated with several prestigious national and international professional bodies and academic programmes, he is a member: State Higher Education Council, Uttarakhand (since August 2017), a vicepresident: Indian Society of Spatial Science Kolkata (3rd term), a secretary: The Institute of Indian Geographers, Pune (2 terms), a treasurer: National Geographical Society of India (Varanasi, India), and a member on the editorial boards of several journals. Professor Ravi Singh has the honour of delivering the 31st Prof. Nirmal Kumar Bose Memorial Lecture at the Geographical Society of India (Kolkata, 2014), Professor Enavat

Ahmad Memorial Lecture (Ranchi, 2015), Prof. R. N. Dubey Memorial Lecture (Allahabad, 2019) and over six dozen invited lectures in different institutions across India. He has been Enrichment Fund (Association of American Geographers) Awardee, 2011, and Academic Advisor: The United States-India Educational Foundation, USIEF (2015-16). Professor Singh has also the credit of contributing to over three dozen international and national seminars/conference/workshops on cross-disciplinary themes as a chief guest, guest of honour, keynote speaker, session chair, invited apeaker, and paper presenter in India and abroad in recognition to his professional expertise and organising seven national/international seminars/conference/workshops. He has supervised/supervising fourteen doctoral/postdoctoral research fellows. His foreign academic visits have been to the USA, Poland, the People's Republic of China, Sri Lanka, and Nepal. The main areas of his academic interest are geographical thought, geography education, social and cultural geographies, and development geographies with special focus on environmentdevelopment interface.



Bharat Dahiya is a global sustainability leader, professional keynote speaker, urbanist, planner, geographer, futurist, educator, team leader, and mentor. He is a director of Research Centre for Sustainable Development and Innovation at the School of Global Studies. Thammasat University, Bangkok, Thailand. He is an extraordinary professor at the School of Public Leadership, Stellenbosch University, Stellenbosch, Western Cape, South Africa, and a distinguished professor at Urban Youth Academy, Seoul, Republic of Korea. He is also a founding board member of the World Smart Cities Economic Development Commission under the World Business Angels Investment Forum. Prof. Dahiya read for his M.A. in Geography from Jawaharlal Nehru University, and Master of Planning from School of Planning and Architecture, both based in New Delhi, India. He holds a Ph.D. in Urban Governance, Planning and Environment from the University of Cambridge, UK.

An award-winning urbanist, Prof. Dahiya combines research, policy analysis, and development practice aimed at examining and tackling socio-economic, cultural, environmental and governance issues in the

global context of sustainable development. Since early 1990s, his research and professional work has focused on sustainable cities and urbanisation, strategic urban planning and development, urban environment and infrastructure, urban resilience, and cultural heritage and landscapes. Working with the World Bank, UN-HABITAT, the Asian Development Bank, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), and UNDP, he initiated, led, and contributed to international projects on sustainable urban development in a number of countries. Prof. Dahiya conceptualised and coordinated the preparation of United Nations' inaugural report on The State of Asian Cities 2010/11. At the World Bank headquarters, he conducted the first-ever systematic review of the Bank's investments for improving urban liveability, published as a co-authored book, Urban Environment and Infrastructure: Toward Livable Cities (2004). More recently, he co-authored Partnering for Sustainable Development: Guidelines for Multi-stakeholder Partnerships to Implement the 2030 Agenda in Asia and the Pacific (UNU-IAS, and UN-ESCAP, 2018) and coedited New Urban Agenda for Asia-Pacific: Governance for Sustainable and Inclusive Cities (Springer, 2020).

Professor Dahiya advises a number of professional, academic, private sector, and non-profit organisations around the world. Since 2019, he has been a member of the International Advisory Board for the UN-HABITAT's World Cities Report (Nairobi, Kenya). He is also a member of the Advisory Group for Future Earth Urban Knowledge–Action Network (Montreal, Canada).

Since early 2014, Prof. Dahiya has been the the series editor for the SCOPUS-indexed Springer book series, *Advances in 21st Century Human Settlements*, which has a growing collection of monographs and edited volumes. He serves on the editorial boards of the Italy-based Geographies of the Anthropocene book series, and several journals: Environment and Urbanization ASIA, Journal of Urban Culture Research, ICON: Journal of Archaeology and Culture, National Geographical Journal of India, Chinese Journal of Population, Resources and Environment, and Jindal Journal of Public Policy. He has held academic positions in Australia, Indonesia, South Africa, and Thailand. Reuters, Inter Press Service, SciDev.Net, Nishi-Nippon, The Korean Economic Daily, China Daily, The Hindu, Deccan Herald, Bangkok Post, The Nation, UB Post, The Sunday Times, and Urban Gateway have quoted Prof. Dahiya's work.

For his professional contributions to sustainable urban development in Mongolia, the Government of Mongolia awarded Prof. Dahiya with a *Certificate of Honour* and the Municipal Government of Ulaanbaatar decorated him with a *Medal of Honour*. In December 2021, the Global Council for the Promotion of International Trade conferred a *Global Sustainability Award* 2021 on Prof. Dahiya.

Arun K. Singh (M.A., M.Phil., Ph.D.) is a professor of Geography at Banaras Hindu University, Varanasi since June 2010. On 20 March 2022, he was appointed as the registrar of Banaras Hindu University. Before joining Banaras Hindu University as a reader in June 2007, he had served for 14 years in the Department of Higher Education, Govt. of Madhya Pradesh, and contributed to the field of teaching, training and capacity building. His area of interest includes urban geography, population geography, economic geography, and participatory planning. He has around 45 research papers to his credit published in professional journals and edited volumes, edited three books, and attended more than 40 national and international seminars/conferences. He has been associated with projects on Impact Assessment of 74th Constitutional Amendment Act sponsored by the Government of Madhya Pradesh, Capacity Building for Poverty Reduction (Department for International Development, DfID), Capacity Building for Access to Information (United Nations Development Programme), State Development Report (Madhya Pradesh) on Urban and Environment (Housing and Urban Development Corporation Ltd-Human Settlement Management Institute, HUDCO-HSMI), and completed one Major Research Project on Urban Water Supply and Sanitation in Varanasi and Adjoining Districts as a principal investigator funded by the University Grants Commission, New Delhi.





Padma C. Poudel earned his Ph.D. from Bananas Hindu University (Varanasi, India) on the topic 'Tourist Resources and Environmental Appraisal of Pokhara Region, Nepal: A Geographical Analysis' as a faculty development programme scholar of Tribhuvan University (Nepal), under the supervision of a prof. Rana P. B. Singh. He was a professor of Geography at Tribhuvan University, Kirtipur (Kathmandu, Nepal). His research involves in environment, climate change, livelihood, tourism, agriculture, irrigation, urban development and management and sustainable development. He adopts interdisciplinary approaches that holistically consider natural environment and built environment and human activities. He has been involved in various national and international research projects in different capacities. He has several national and international publications to his credit. His books are prescribed as text and reference books in the curriculum of graduate and post-graduate programmes in geography of Tribhuvan University.

He has held several prestigious academic and administrative positions like Head of Central Department of Geography, Tribhuvan University (2012-2016), Senate Member of Tribhuvan University (2015–2016), Service Commission Member of Pokhara University (2014-2017), Member of Academic Council of Tribhuvan University (since 2014), Coordinator of Municipal Determination Committee of Nepal (2013), and Chairman of Geography Subject Committee (2012-2016); Member: Faculty Board of Faculty of Humanities and Social Sciences (2009-2016); General Secretary of Nepal Geographical Society (2002-2017); Vice-President: Nepal Scientific Activities and Research Centre (Kathmandu), and editorial board member of Nepal Tourism and Development Review (Nepal Tourism Board, 2011), The Himalayan Review (Nepal Geographical Society, since 2002), Corresponding Editor: The National Geographical Journal of India (Varanasi). As an expert consultant, he also worked in Nepal Tourism Board, United Nations Development Programme (UNDP), International Labour Organization (ILO), and with foreign universities like Australian National University (Australia), Michigan State University (USA), and Aalborg University (Denmark).

Contributors

Sudeepta Adhikari (Deceased) Department of Geography, Patna University, Patna, India

Abhisht Adityam Department of Psychology, Banaras Hindu University, Uttar Pradesh, Varanasi, India

Nasrin Banu Department of Geography, Aliah University, Kolkata, West Bengal, India

Pratyusha Basu Department of Sociology and Anthropology, University of Texas-El Paso, El Paso, TX, USA

Abani Kumar Bhagabati Department of Geography, Gauhati University, Guwahati, Assam, India

Premangshu Chakrabarty Department of Geography, Visva-Bharati University, Santiniketan, West Bengal, India

Anjali Chhetri Holmesglen Institute, Melbourne, Australia

Prem Chhetri Supply Chain and Logistics Management, College of Business, RMIT University, Melbourne, Australia

Bharat Dahiya School of Global Studies, Research Centre for Sustainable Development and Innovation, Thammasat University, Pathumthani, Thailand

Juncheng Dai School of Culture and Communication, Central University of Finance and Economics, Beijing, China

Nityananda Deka Department of Geography, Gauhati University, Guwahati, Assam, India

Pahari Doley Department of Geography, DCB Girls' College, Jorhat, Assam, India

Shahab Fazal Department of Geography, Aligarh Muslim University, Aligarh, UP, India

Martin J. Haigh (Deceased) Department of Social Sciences, Oxford Brookes University, Oxford, UK

Nikhil Joshi School of Design and Environment, Department of Architecture, National University of Singapore, Singapore, Singapore

Bimal Kumar Kar Department of Geography, Gauhati University, Guwahati, India

Ajay Kumar Department of Geography, Bansur PG College, Bansur, Rajasthan, India

Sarvesh Kumar Department of Geography, D.D.U. Gorakhpur University, Gorakhpur, UP, India

Tushar Mandal Department of Geography, Saltora Netaji Centenary College, Bankura, West Bengal, India

Padma C. Poudel Central Department of Geography, Tribhuvan University, Kathmandu, Nepal

Sarbeswar Praharaj Knowledge Exchange for Resilience, School of Geographical Sciences and Urban Planning, Arizona State University, Tempe, AZ, USA

Erik Reenberg Sand Department of Cross-Cultural and Regional Studies, University of Copenhagen, Copenhagen, Denmark

L. N. Satpati UGC-Human Resource Development Centre, University of Calcutta, Kolkata, India

Vandana Sehgal Faculty of Architecture, A.P.J. Abdul Kalam Technical University, Lucknow, India

Arun K. Singh Geography Unit Mahila Mahavidyalay, Banaras Hindu University Varanasi, Varanasi, Uttar Pradesh, India

R. B. Singh (Deceased) Department of Geography, Delhi School of Economics, University of Delhi, Delhi, India

Rana P. B. Singh Department of Geography, Banaras Hindu University, Uttar Pradesh, Varanasi, India

Ravi S. Singh (Deceased) Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh, India

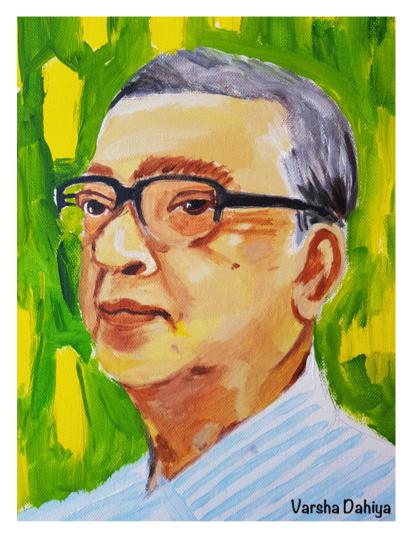
Sugandh Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh, India

Shunying Tang School of Tourism and Geography Science, Qingdao University, Qingdao, China

Ruihong Zhang School of Electronic and Information Engineering, Liaoning Technical University, Huludao, Liaoning, China

Shangyi Zhou Faculty of Geographical Science, Beijing Normal University, Beijing, China

Introduction



Prof. Rana P. B. Singh Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

Introduction: Essays in Honour of Rana P. B. Singh



Ravi S. Singh, Bharat Dahiya, Arun K. Singh, and Padma C. Poudel

Abstract Culture is central to human beings to the extent that the history of their evolution is incomplete without the consideration of cultural attainments across time and space. However, in the domain of geography as a discipline, its conceptualisation and place do not appear clear. The sub-discipline of cultural geography having its roots in late nineteenth century both in the German and the French traditions grew and got recognition through the works undertaken by the American geographers, particularly the tradition established by Carl Sauer and his students. No matter whether culture and cultural issues were at margins or centre stage, all through the journey they remained contested. Today, it is a well-recognised discipline and rich through scholarly contributions from different perspectives benefitted by the development taken place in the allied disciplines. Indian geography presents a good example wherein cultural geography could not acquire substantive status despite having tremendous scope given the cultural richness of this land. It remains a marginal sub-discipline in Indian geography even in the twenty-first century; of course, the works of some practising Indian geographers have acclaimed international repute, but their number is miniscule. The present chapter is an attempt in short to trace cultural geography's journey vis-à-vis the Indian scenario and to introduce the contents of the volume.

Keywords Culture · Cultural geography · Cultural turn · New cultural geography · Landscape · Heritage · Religion · Pilgrimage · Tourism

B. Dahiya (⊠)

A. K. Singh Geography Unit, Mahila Mahavidyalaya, Banaras Hindu University, Varanasi, Uttar Pradesh 221005, India

P. C. Poudel Central Department of Geography, Tribhuvan University, Kathmandu, Nepal

© Springer Nature Singapore Pte Ltd. 2022

R. S. Singh (Deceased)

Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh 221005, India e-mail: ravis.singh1@bhu.ac.in

School of Global Studies, Research Centre for Sustainable Development and Innovation, Thammasat University, Pathumthani, Thailand

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_1

1 Introduction

Geographers are now more likely to understand culture as a set of symbolic resources that help people make sense of the world around them, as well as a manifestation of the power relations between various groups and the structure through which social change is constrained and enabled (Wylie 2016; Adams et al. 2001). There are many ways to look at what culture means in the light of various geographical insights, but in general, geographers study how cultural processes involve spatial patterns and processes while requiring the existence and maintenance of particular kinds of places and cultural landscapes.

In the 1970s, a revitalised cultural geography manifested itself in the engagement of geographers such as Tuan (1977), Relph (1976) and Buttimer with humanism, phenomenology, and hermeneutics (cf. Maddrell 2009). This break initiated a strong trend in human geography towards post-positivism that developed under the label 'new cultural geography' while deriving methods of systematic social and cultural critique from critical geography. In the twenty-first century, the trends turn towards 'return to materialist concerns in the work of a new generation of cultural geographers informed by their engagements with science and technology studies and performance studies, on the one hand, and by their worldly involvements in the politically charged climate of relations between science and society on the other' (Whatmore 2006: 600–601). Obviously, these efforts capture the new ways of approaching the vital axis between the bio (life/landscapes) and the geo (earth/Gaia), or the 'livingness' and 'liveability' of the place attachment, where the modality of life is politically and technologically molten (cf. ibid.). In India, Rana Singh (2009c) contribution in cultural astronomy is an exception on the above line.

This edited volume has been put together in honour of Professor Rana P. B. Singh, an Indian geographer who has made significant contributions to the discipline of geography. Spanning a period of over 48 years, Rana Singh's research and publications have covered several themes including landscapes, religion, heritage, pilgrimage and tourism, and human settlements. The remainder of this chapter is divided into three parts. Section 2 includes a brief survey of the trends in cultural geography in the West. As this volume is put together in honour of Prof. Rana P. B. Singh, the authors felt it important to include an overview of the trends in cultural geography in India—this is the focus on Sect. 3. The last section of this chapter provides a brief introduction to the structure of the book and the chapters included in its six parts.

2 Cultural Geography: Reflections from the West

Cultural geography is an evolving domain of study around the world. In modern times, the first due consideration to the study of culture in the domain of geography was led by Friedrich Ratzel (1844–1904) in Germany and by Paul Vidal de La

Blache (1845–1918) in France. The American geographers later took the lead in the Anglophonic world. The dominant traditions within the American geography had been influenced by the Ratzalian ecological conception and anthropologic interest of Franz Uri Boas (1858–1942) in ethnographic study of (local) communities. The foundation of 'Berkeley School' by Carl Sauer (1889–1975) has emphasised its primary concern with 'human interventions' and the natural world's 'transformations' (cf. Sauer 1963). In this manner, cultural geography was seen bridging the social and earth sciences; thus, it sought an integrative view of humankind within its physical environment underlining the unavoidable temporal frame in any geographical enterprise. It made clear that how cultural geographic enquiries subsist on collaborations with fellow practitioners in the academic domains like history, archaeology, ethnography, and anthropology (cf. Wagstaff 1987). The changes seen in the domain of cultural geography during the last quarter of twentieth century could be broadly identified as: (i) new cultural geography, (ii) cultural turn, and (iii) New Age science.

By the end of the twentieth century, the sub-discipline appeared maturing as revealed by distinct theoretical positions and methodological refinements. A good example in this context is 'eco-feminism'. Similarly, pilgrimage studies together with religious landscapes too continue to get academic attention in the West. Contemporary practices provide evidence to the fact that cultural geographers are looking at important human issues—like conflicts, global relations, terrorism, and also development through culture as well as materials and waste, and revisiting older issues like migration from the prism of culture (Silvey 2013). The twenty-first century has flagged off interesting directions as Anderson (2019), in his third and last part of report, argues that three versions of the concept of culture as essential effect, culture as mediated experience, and culture as forms of life. All three break with one of the versions of culture in the 'new' cultural geography—culture as 'signifying system'. In this light, the attempt by Rogers (2018) may be viewed as attempting to construct the crossings of aesthetics, mobility, and geopolitics based on performing arts.

New cultural geography, as a genre of thinking influenced by sociological critique of (material) culture and landscapes, which put forth views in favour of a new geographical concept of culture, concerned more with space and spatiality that are explained through social relations of production and reproduction. Thus, it is more aligned with social sciences and humanities rather than biological and earth sciences, as it was the case in the past. Under its influence, problems of culture and communication, symbolism and meaning, identity and territory, and the likes emerged searching for new grounds (cf. Smith and Foote 1994, 27–33). In the passage of time, the range of topics studied and the strength of interpretations have grown unprecedentedly. The vigorous intellectual debates taking place in the disciplines of social sciences and humanities are creating an inescapable influential effect on geographers interested in the study of culture and cultural patterns.

An intellectual shift termed as 'cultural turn' that successfully brought cultural issues to the forefront took place in the 1990s. It has been a replacement of the political economic approach. In recent times, attempts are being made to highlight the scientific backgrounds of ancient wisdom, and all such attempts are being put

together under the umbrella of 'New Age science'. In this process, we are returning to ancient texts to dig out the scientific knowledge which could be gainfully used to respond to the present-day human crises; it is an attempt to understand the underlying messages in the continuing and living cultural practices. Consequently, areas like cultural astronomy and sacred geometry, etc. have come into being (cf. Singh 2009c, also Malville and Singh 1995). Though quite rich and strong in terms of interpretations and the meanings, in terms of number and frequency, such studies are limited. Growing involvement of scientists and cultural geographers in this enterprise can play a considerably larger role in contemporary discourse.

Under the aegis of World Academy of Science, Engineering and Technology, a global discourse is initiated through organising annual International Conference on Cultural Geography since 2007 and the planned one in process for 2022—International Geographical Union Centennial Congress (see Singh and Singh 2022). These meets provide a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted in the fields of cultural geography, of course predominated by the Euro-American contexts.

3 Cultural Geography: Trends in India

The practice of cultural geography as a sub-discipline has been gradually evolving in India as well, generally as part of historical geography. However, since the 1980s, the substantive coverage of cultural geography in India has moved away from rural settlement studies in the past to a wide array of cultural subjects in the recent decades. In their survey of cultural geography in India during 2000–2008, Singh and Singh (2004, 2008) noted the existence of following topics of concern: cultural ethnology (text, context and narrative), cultural practice (consciousness and performances), cultural manifestations (spatiality and astronomy), and cultural journeys (pilgrimage to sacred places). Further reports confirm the continuing progress in cultural studies, but the geographers' contributions are feeble except a few, mostly by Rana P. B. Singh (Singh 2012a, 2016c; Singh and Singh 2022). Compared to a few decades ago, today cultural studies courses are offered in many more universities in the country. Though, all of this did not happen in a day.

Cultural geography in India has had its own critiques. Way back in the 1970s, Sopher (1973/2009) lamented the missing 'dweller's perception' in Indian geographic tradition. The resources for cultural geographers available are all around—in the material landscape, mass of visiting devotees at shrines and participants of fairs and festivals, marriages and marriage parties (cf. Sopher 2009: 274). The major factor behind the slow growth and limited thematic coverage of cultural geography studies in India in the twentieth century is that this sub-discipline was taught only in a few universities in the country during that period. As a result, the published works featured recurring themes, such as settlement and house type studies—especially rural settlement ecology, habitat, diffusion, distribution and morphology, caste

and tribe related studies, and literary geography. The fact that India—the home to rich cultures, alive through practices and represented in diverse heritage—that provides vast opportunities for cultural geography studies, had only a limited bearing on the thematic coverage of cultural geography studies in the past century.

The cultural geography in India started to take some new directions in the late 1980s. Religion is an important part of culture, especially in the case of India that is home to many world religions and indigenous religious belief systems. The traditional geographical works on religion, which focused on limited themes with often a descriptive approach among which pilgrimage finds an important place, are now replaced by the analytical ones wherein issues like politics and poetics of religious place, identity, and community have found place, but mostly in anthropology. In India, geographers have shown a general interest in this sub-domain of cultural geographies, (ii) demographic and distributional aspects, (iii) sacred geography as ecology, (iv) time, ritual, and space organisation, (v) religious ecology and animals, and (vi) pilgrimage.

The significance of literature in cultural studies in geography is well established. India has a vast pool of literature in different regional languages that is a huge resource. New horizons have opened wherein human existence, action, experiences, and expressions—which have direct bearing upon making, unmaking, and remaking of places and cultural landscapes—have been given due consideration (cf. Singh 2003). A classic example is presented with a monograph on the literary images of Banaras (Singh 2004). It appears that literary geography is coming out of the Puranic garb and has begun to address contemporary critical issues?

The present century sufficiently indicates that culture itself is in flux. The growing popularity of cybernetics and hybridity is defining urban cultures across the globe today. However, the studies on urban culture of India from geographical perspectives are missing. The evolution and transformation of tribal cultures and culture areas also need to be studied longitudinally. There is an urgent need to enrich cultural geography studies in India by utilising the accessible geographic content available in the cultural heritage and landscape, texts and traditions. Looking critical, cultural geography in India has ever been a marginal sub-field, but for settlement studies, unable to draw attention of the mainstream Indian geography.

Writing in the last part of the twenty-first century, Singh (2009b: 162–195) identified three approaches to accomplish the future task in Indian cultural geography: (i) empirical–analytical approach; (ii) hermeneutic approach; and, (iii) critical approach. Many potential areas of study remain barely explored, for example, cultural animal geography. The twenty-first century thus is an opportune time to take up research issues like mapping the changes in food behaviour and patterns, and the emerging new economics of food supply–demand and surplus-shortage too. There still exists tremendous scope for exploratory studies in a variety of traditional and emerging areas (see Singh, 2020: 89–140). The form of urbanism and emerging urban spaces, heritage studies—a rich and potential area of applied cultural geography—could be developed by including both tangible and intangible together with sites using geographers' expertise to make comprehensive (re-) interpretation and heritage planning. It has a direct policy implication too.

Clues from the optimism shown by Joe Schwartzberg need serious consideration, 'There is...much scope from Indian cultural traditions. What is now needed is to enrich geographic research in India through a skilful blending, in appropriate cultural contexts, of the rigour of the western scholarly paradigms and greater application of indigenous culturally relevant concepts' (Schwartzberg 1983: 253). More geographies of people's experiences, memory, and exposition of inherent meaning are required. India has always consisted and possessed of such geographies, where simplicity has invisible complexity, and visuality has deeper messages. Unfortunately, the recent generation of geographers has little sense of feeling this' (Singh 2009a: p. 40).

3.1 Twenty-First-Century Trends

The twenty-first century has unfolded two interesting academic realities—super specialisations in one and collapsing of older disciplinary boundaries making way for convergence of varied disciplinary practices. This has helped in enriching cultural geographies which get contributions from varied perspectives (cf. Singh, 2012a; Singh, 2020a). That is why it is not surprising to find cultural studies using historical, archival, ecological, literary, travelogue, ethnographic, and associated methods to investigate localised patterns of religion, language, diet, arts, customs, folk music, cinema, and any associated attributes are concerned with some of the aspects of cultural geography (cf. Singh and Khan 2002; Singh, 2020b; Singh and Sweta 2019). Some of the notable attributes of cultural geography as captured in Indian contexts are discussed in short.

3.1.1 Cultural Landscapes

Landscape is a complex concept including spatiality and temporality and their interconnectedness. The Indian cultural landscape (ICL) becomes a complex cultural mosaic due to the addition of sacrality of nature and overall the encompassing manifestation of transcendence of man who since time immemorial is trying to make a connect between conscious mind and superconscious divine (cf. Singh 2013). The ICL thus becomes a repository of mental constructs, visual expositions, collective memories, monuments, cultural traditions, including rituals, happenings, and many other associated elements shaped by active engagement of different communities with respective ecology over generations (cf. Thakur 2012: 154–155). The Hindu literature personifies the land as divine Mother (*Bhudevi*) and is full of reverence for *Bharat Mata* ('Mother India') and 'Mother Earth'. And naturally the land becomes part of the sacred geography of India (Eck, 2012; Singh 2013e). Sacrality and imageability of holy-heritage sites are other issues of concern, as exemplified in case of Varanasi and Ayodhya (Singh 2020; Singh and Kumar 2018).

Sacred landscape is represented through codified sacred art, signs, and symbols which contain inherent meanings (Singh 2015d; Singh 2016a; Singh, Rana and Olsen 2022). The riverfront of Varanasi presents an example sacredscape which has undergone creation and recreation (Singh 2015c), and this process still continues (Singh 2020). Similar landscapes are characterised in Ayodhya, and the nature and characteristics of ritualscapes, sacrosanct environment, intangible heritage, SDGs and heritage development, and imageability of cultural landscapes are described while comparing with Varanasi (Kumar and Singh 2013, 2015a, b, 2016a, b, 2017a, c, 2019; Singh and Kumar 2018; Singh and Kumar 2020a; Singh, Kumar, and Rana, 2020b; Singh, Rana, and Kumar, 2020c; Singh, Kumar, and Rana, 2020d).

The nexus of Nature-divine-Man interaction, manifested through sacrality and symbolism in the process of landscape formation in ancient cultures like India, now considered as emerging philosophy of nature conservation (Singh and Rana 2020), and expressed deep sense of ecospirituality and cosmology (Singh 2016b, 2014b) which may help in building harmonious global order (Singh 2012c).

Chatterji's (2014) two-volume work has looked at Indian urban development from colonial and postcolonial perspectives taking issues like history of urbanisation, concepts of urban space, socioeconomic and sociocultural dimensions of postmodernism, globalisation, urban expansion, planning, conservation, heritage, race, class, ethnicity, poverty, gender, public health, natural and built environments, etc. and also the evolution of the natural and rural landscape in India.

3.1.2 Heritage

The deep sense of ecospirituality and cosmology has been the hallmarks of ancient geographical thoughts in India (Singh 2009a, 2009b) whose similarities and archetypal relationship with the works of Leonardo da Vinci has recently been examined (see, Singh 2014b). Geographical imprints on the sacred landscapes of India from historical perspective have caught attention of scholars in recent interdisciplinary debates (cf. Singh 2015k; Singh 2016a), especially in the context of cosmic integrity (Singh 2012d), and analysing holy-heritage city of Banaras/Varanasi as cultural complex and cosmic whole (Singh 2002, 2004, 2013b, 2014a, 2015a, b, c, d, 2016b, c, 2018; Singh and Rana 2016b, c). The Hindu family system has central and unique place in the formation of Indian society in spatio-temporal context and illustrates the example of geographical vision (Singh 2013c, 2013d). Based on an assessment of the cultural heritage of the sacred Braj region in phenomenological approach, Sinha (2014) sought to promote environmental values through restoration of water bodies, groves on the Yamuna Riverfront, and Govardhan Hill. Rivers have been conceived as goddesses in the Hindu religious tradition which have purificatory power and bless the humanity well narrated in case of the river Ganga-one of the bases of integrating India culturally. Singh (2013b) in his study of the Muslims

shrines in Varanasi has identified the existence of their 1388 shrines and sacred sites, among which 14 are so popular that they also attract even the Hindus. Some other notable studies dealt with Muslim culture, pilgrimage and water symbols (Singh and Ahmad 2021a, b). Besides the issues of sacrality, tribal culture and heritage and changes taking place therein as found in the work of Hilaly (2018) on Apatanis, a tribal community of Arunachal Pradesh (India); cultural continuity and changes taking place in other part of the world by Indian scholars (Singh, Ravi 2019b) have also been addressed. It would be appropriate to note that heritage continues to attract scholars from multiple disciplines (Sharma 2018; Singh and Niglio 2022).

3.1.3 Pilgrimage and Tourism

The personification of land (the earth) as mother goddess automatically gives form to the sacred geography of ancient cultures like India (Eck 2012; Singh 2012f) and in due course of time the pilgrimage places emerge to which people seeking salvation. Today, a huge corpus of pilgrimage studies are known including one of the classics by Bhardwaj (1973), including those which provide scientific as well as interdisciplinary perspectives, especially on Hindu sacred centres and spaces (Singh 2009c; Singh and Haigh 2015; Singh and Rana 2016b; Singh, 2020a: 89–140). Sacredscapes and ritualscapes are strongly interconnected, and therefore, it is difficult to imagine one in the absence of other.

The study made by Aukland (2016) has attempted to conceptualise pilgrimage and tourism as two separate domains and argued that tourist guides and their guided tours have become an integral part of Hindu pilgrimage and its operation in contemporary India. Adler et al. (2013) made an interdisciplinary study in the Kailash Sacred Landscape region (Nepal) to explore opportunities and challenges for sustainable tourism as a strategy to community resilience in the wake of climate change and poverty-alleviation measure, incorporating local traditional knowledge and legitimising it.

Geography, like other social sciences, is in a state of flux (Singh 2016c). The process of cultural studies becoming more and more interdisciplinary has broadened the horizons of cultural geography and its scope which also stands true for India at present, and Hinduism especially (cf. Singh 2015e, 2016a; Singh and Aktor 2015). The study of cultural ecology with its basic attributes and their interrelationships embedded in the values and ethics of Indian society need consideration for future research. Singh (2016c) makes an optimistic remark in a report on the progress in cultural geography in India, 'The studies in cultural geography of India will take these issues in the coming future. We should realise and reveal ways to change the mind-set, and mass awakening in making our culture harmonious, peaceful and happy; remember the core concern of geographical practice is to make happy places and spiritual landscapes' (p. 132). Beside the works of Rana P. B. Singh (selected ones reviewed), works like Singh and Sugandh (2017), Ghosh and Ghosal (2019), Kapur (2019) and Singh and Ghosh (2019), Singh and Singh (2017c, 2019) are

few examples of some recent directions in cultural geography practices in India (see Singh, 2020: 89–140; Singh and Singh 2022).

4 Essays in Honour of Rana P. B. Singh

This felicitation volume is organised into six parts. Part I is the introduction to the present volume in which the present chapter is followed by an introduction to Prof. Rana P. B. Singh in a semi-biographical mode, and an interview-based essay on his academic journey. Part II on 'Landscapes' consists of three chapters dealing with landscape perception in the context of tourism; Char landscape of Brahmaputra river; and the landscape dynamism of Hanoi city. Part III on 'Religion' has three chapters which discuss priesthood in Pandharpur (Maharashtra); spread of Hindu religion; and indigenous religious belief system. In Part IV on 'Heritage', five chapters explore different aspects from ancient intellectual heritage to tribal heritage, viz. Kautilya's political geography; facets of Bodhgaya; vernacular landscape; cultural approaches to animal geography; and the Misings-a tribal community of Assam, India. Part V is titled 'Pilgrimage and Tourism' that includes chapters on Buddhist pilgrimage; Panchakroshi Yatra of Varanasi; cultural tourism; and the Baul-Sufi interface. In Part VI on 'Human Settlements', there are four chapters addressing different aspects of cities like cultural images; urban sanitation; agricultural land use trajectory; and urban renewal and redevelopment of public space.

Part I: Introduction

Beside the present chapter introducing the theme and content of the book, Part I of the book contains two more chapters. The chapter by Singh and Dahiya presents an appraisal of Rana Singh's professional career, academic contributions, and recognition, covering most of the aspects he dealt with, that is how he is widely known as a leading figure of Indian geography which he has enriched through immense contributions especially cultural geography from dweller Indian perspective in the purview of multidisciplinary frame.

In the essay by Adityam, the author has talked to Rana-Ji to know about his journey and experiential feelings to the academic pedestal on which he stands today as an internationally known academic and scholar of repute, and finall the future he foresees of his adopted home city and the tradition of Varanasi Studies that he has developed through dedicated work and untiring zeal to serve its cause. He has spent almost half a century understanding unfolding meanings of different layers of the city as it is said metaphorically that this city is older than history and maintained the path of 'succession-sustenance-and-sustainability'—as to how Rana has narrated in his writings.

Part II: Landscapes

Chhetri and Chhetri's essay describes the evolution of the concept of landscape in geography and establishes it as a geographical paradigm, and further examines the constituents of landscape and identifies the components of experiential aspects. They argue for a unified construct integrating the process of sensing, perceiving and cognising the total of biophysical characteristics of geographic space. Later, it also discusses a model to analyse perception and experience of landscape using tourists' perception as a surrogate to represent and reflect the process of constructing landscape.

Sarvesh Kumar has recorded and described the multicultural sacredscapes in Ayodhya, a holy-heritage city of India. These sacredscapes are studied in their ethnological context while taking various niches and frames developed and attested by Professor Rana P. B. Singh in his studies of holy-heritage cities of north India. To begin with, the chapter describes the geographical personality of Ayodhya. This is followed by six sections that discuss the Hindu sacredscapes, including Hanumangarhi, Ramajanmabhumi, Nageshvarnatha Temple, Kanak Bhawan, Badi Chhavani and Chhoti Chhavani, Chandrahari Temple, Sapta Hari Temple, the Shakti sacredscapes, and the caste temples. This is followed by five sections on provide details of Muslim, Jain, and Sikh sacredscapes, Christian churches, and the memorable landscape of Korean Queen Heo (Korean Park).

Bhagabati and Deka have analysed the evolution of 'Char Landscape of the Brahmaputra Riverine Tract' in Assam and describe the characteristic cultural ecology there. The chapter begins with an exhaustive introduction to the evolution of *char-chaporis* and the formation of a typical cultural ecology characterised by not only ethnic diversity due to inhabitation by immigrants, but also of livelihoods, occupations, and economic opportunities. The authors put forth clearly that both natural and cultural factors are responsible for the constant modification of the *char* ecology which indicates their dynamism. Peopling of char lands have been discussed with reference to the immigrant Muslims, Bengalis, and Nepalis in the political economic approach. The next section provides a reasoned account of human habitation's patterns. The issues concerning evolution of cultural landscape, agriculture, and movement in and out of the *chars* which are typical of the Brahmaputra River from cultural ecological perspectives are also discussed contextually.

Praharaj has attempted to analyse the culture of public spaces in Varanasi, their use and present state of decay through an in-depth case study investigation of *kunds*— the sacred water bodies. The whole discussion is organised into five major sections, covering the introduction of the research design, Varanasi's brief city profile, the city's culture and heritage and public spaces, and the case study of Pushkar *Kund*— its heritage value and present condition. Finally, the author has tried to develop an 'integrated vision' for the renewal of this *kund* which can contribute to its conservation and development as a space for public gathering through a variety of interventions in the form of design, policy regulation, and management frameworks.

Part III: Religion

The focus of chapter by Erik Sand is on Pandharpur—a regional town in Maharashtra, the Vithobā temple for which it is known and the priesthood there. It is noted that after independence and the introduction of the modern state, the position of the local priesthood has been increasingly undermined by modern legislation which has led

to the priesthood losing their traditionally inherited rights and privileges including the management of the temple.

In the next chapter, Martin Haigh presents an exploration of the spread of Hinduism into the United Kingdom (UK) using Nattier's Import–Export-Baggage model. Its introductory section begins with a small quote from Rana Singh's work (2011) which calls for 'thinking *universally*, seeing *globally*, behaving *regionally* and acting *locally* but *insightfully*' (cf. Singh 2009a: 147). Treating this idea as beacon light, it draws an extended conceptual framework using comparative assessment of two geographical models for the spread of religions proposed by Nattier (1997) and Park (2004) respectively; and long quotes from Rana-ji's works and various other published literatures by the academicians. Following a descriptive yet critical account of the various Hindu traditions in the UK, he has referred to the pros and cons of each movement leading to the concluding section in the context of the emergence of a new '*Ekatvam*' Hinduism, which ends with Singh's (2012b) welcoming observation on the progressive development of an *Ekatvam* ethic of 'coexistence and equity rooted' in the concept of '*Vasudhaiva Kutumbakan*' in Global Hinduism (compare Singh and Aktor 2015).

Ravi Singh has presented a descriptive analysis of indigenous belief systems in India's north-eastern region taking up the case study of Arunachal Pradesh, in the background of a critique of colonial approach to cultural studies which does not give importance and recognition to the 'others'. This chapter explains the external influences on indigenous faiths wherever applicable. Christianity and conversion (into it) are sensitive and controversial issues with respect to IRBS in tribal regions including the North-East India as a whole and Arunachal Pradesh particularly.

Part IV: Heritage

Adhikari's essay presents a detailed analytical account of the comparative politicogeographical concepts and ideas developed by Kautilya in his *Arthashastra* (c. 321– 296 BCE), one of the great ancient Indian scholars who was also an accomplished administrator, diplomat and statesman. The issues captured include concept and structure and spatial structure of kingdom, concept of boundaries and associated physical factors. Focus is also laid on the issue of population and power of the state followed by resources and state power, role of communication, and geographic features and interstate relations before drawing conclusions.

Singh and Sugandh highlight how centuries' old regional genealogical record keeping techniques can be a source of information to explore the patterns of migration and marriage decisions in the Mithila Region, Bihar. It is noted that the annual matrimonial gathering in Mithila called Saurath *sabhagachi* explains the role of the *panji* system in the matrimonial decision-making process. This chapter offers a theoretical view on genealogy to provide an insight into how genealogical record keeping, marriage, and space are interrelated and an inseparable cultural phenomenon in the Mithila region.

Joshi's chapter is a critical enterprise to 're-illustrate' the city of Bodhgaya (India) which has been important to Buddhists and Hindus, hence contested and consequently poeticised. He has argued that sacredness goes beyond scriptural texts and

archaeological remains per se, and its significance chiefly lies in the active interaction between humans and religious architecture within the dynamic ritual settings. This mutual relationship is crucial for understanding the sacredness, generally for the 'living' sacred architecture in India and especially in the case of Bodhgaya to best sustain the values of the place in its context while also managing changes taking place in the surrounding landscape. It is argued that rituals, which are continuously reinvented and altered and thus ever evolving, are central to the sacredscape. In the last main section, at the end, the journey of the Mahabodhi as a World Heritage Site has been analysed in detail considering differential densities of human involvement, attachment, and experience.

Dai et al. discusses how the new cultural geography is concerned with the meaning contained in cultural landscapes, as illustrated in a case of Dongshan Town, Suzhou, China, while using meanings inherent in transmission of vernacular landscape and the context of constructivism theory. It is argued that people of different regions have their own unique understandings of landscape, which advances formation of vernacular landscape concept and the regional cultural sustainability manifests in several ways, like people's identity and heritage. In this process, argue the authors, youth and teenagers assume important roles.

The essay by Doley and Kar is a descriptive analytical study of the Misings tribe of Assam (India) who belong to Tibeto-Burman ethnic group, who primarily inhabit riverine rural areas and have insignificant presence in urban settlements and thus largely concentrated in the upper Brahmaputra valley particularly in Dhemaji and Lakhimpur districts. The present study provides an insight into the changes taking place in a very small section of the Misings through the process of modernisation and acculturation in recent times including urbanisation, religious transformation, education and intermixing, and the impacts of these factors on traditional life and cultural practices.

Part IV: Pilgrimage and Tourism

In the chapter on Lumbini (Nepal), Poudel has provided a detailed geographical analysis in a regional context, which is one among the most important places of Buddhist pilgrimage, where Lord Buddha was born. Thus, it is recognised as the place of 'grand pilgrimage' in the Buddhist world. The chapter presents an analysis of social and demographic characteristics of places surrounding Lumbini followed by a theoretical discussion on the concept of pilgrimage, and Buddhist places of pilgrimage with special reference to Lumbini, and the spatial characteristics of pilgrims.

Vandana Sehgal takes us to a different place of pilgrimage, i.e. Varanasi or Kashi which is sacred to many Indic religions, and presents an explanation and exploration of sacred environments of Kashi *kshetra* delineated as one of the pilgrimages called Panchakroshi Yatra, undertaken by the devotees in the intercalary (*malamasa*), circumambulatory in nature forming a *mandala*, in phenomenological approach based on the author's experiences from the architectural perspective through devout pilgrims' belief and experiences. The author has analysed the basic activity pattern to understand the whole cycle of the yatra and how the cycle of spatial environment transforms it into a spiritual realm symbolically. This paper is an extension and

restudy of a classic book on this pilgrimage by Singh (2002/2013) and substantially revalidate his expositions.

Singh and Kumar have made an appraisal of culture-based tourism in development taking the case of Rajasthan and approved the fact that tourism is the largest and fastest growing industry increasingly acquiring organised form and seen as multidimensional, hence viewed as possessing huge potential in terms of future development taking in view the current status and potential of cultural tourism.

The chapter titled 'Baul-Sufi Interface and Cultural Tourism: A Study in Northern Rarh of West Bengal, India' authored by Chakrabarty and Mandal describes cultural tourism in the Rarh Region of West Bengal, perceived as the land of Sahajiya syncretistic tradition, characterised with its sacredscapes. Bauls and Sufis associated traditions and sacred places particularly in the Northern part of Rarh are identified as valuable tourism resources by the authors. The Baul-Sufi interface thus becomes a subject matter in the tourism geography of Rarh Bengal. And, at the end, an appraisal of the scope of promotion of Baul-Sufi tourism in the region is made.

Part VI: Human Settlements

An essay by Satpati attempts to bring out as to how cultural imprints provide spatial identification to places in cities, taking the example of Kolkata, based on perception of prominent personalities, the images of cultural heritage and perception of identities of locations at micro level, pseudo-locations as well as shift of the imageries. The paper also discusses the issues pertaining to locating the images of urban transport in Kolkata, pseudo-locations and shifts of the imageries, miscellaneous images and identities, and finally cultural legacy under threat.

Basu has conducted a case study of India's capital city Delhi to develop an understanding of how the ongoing process of urbanisation in India unfolds as intensified class inequalities reveal 'new and renewed urban landscapes' emerging on the basis of elite and middle-class ideals of forms of urban spaces and their occupants. Her argument, that the cities increasingly reflect contemporary economic imperatives through adopting the aesthetics of a 'global city' that can accommodate capital investment, is further extended by focusing on how animals are accommodated into or displaced from cities seeking to become properly global. The central argument of this chapter is that the stray cattle removal program has led to confinement of animals being the only acceptable mode which has pushed the dairy farmers along with the cattle to the margins of the city.

Arun Singh's paper discusses the state of urban sanitation at macro level and highlights existing grass root realities taking Varanasi as a case study, based on primary data collected from twelve sample municipal wards through a set of questionnaires and supported by other techniques like informal discussion focus group discussion, participatory appraisal, and observation technique. Finally, aspects of sanitation related ground realities have been addressed which are generally not revealed by the government statistics.

Banu and Fazal have attempted to analyse the perspectives of agricultural land use trajectories for three decades (1980–2010) due to the development and expansions of Aligarh city of Uttar Pradesh (India) on its peri-urban interface zone and

portrayed how the distance from the urban centre plays a role in the transformation of agricultural land use to urban usage. Finally, the discussion is made with respect to the status of land resource in Aligarh peri-urban interface zone, drivers of periurbanisation and land use, human activities and alteration in peri-urban land use and land cover in the peri-urban interface zone of Aligarh, determinants for disposal of agricultural land, pattern of peri-urban land conversion and transformation, and the cost of peri-urbanisation.

5 Perspective: From Emergence to Envisioning

Let us stop at the destination of awakening, what Schwartzberg (1998: 252) has rightly and rationally suggested in his own vision taking into account the 'long, rich, and distinctive culturally-rooted history of geography in India that with the coming of western colonialism was not only denigrated but also, in time, rendered virtually invisible'. His concluding appraisal is alarming and could be taken as a path to be followed: 'There is, ..., much scope from Indian cultural traditions. What is now needed is to enrich geographic research in India through a skilful blending, in appropriate cultural contexts, of the rigour of the western scholarly paradigms and greater application of indigenous culturally relevant concepts' (Schwartzberg 1998: 253). Notwithstanding 'the lines of thoughts, approaches, methods, population groups, religions, politics, economy, and so forth, must not be forgotten that geography like science has no boundaries, that on daily basis, knowledge is revitalised, as long as it is used to construct a better society', where civic sense, care for the nature, conservation for the heritage, and concerns for sustainable and harmonious world be part of the lifeworld (Singh 2009a: 40–41). It is further provoked that 'it would a great task before us, dweller geographers, to explain and share with others by joining hands in narrating everyday experiences, feelings, revelations and realisations in all their geographical complexities in order to research and remaking path towards peace, passion, love, mutual cohesiveness and harmonious life' (Singh 2009b:182). "Let variety of flowers bloom in different gardens, but there should also be a soothing fragrance to be shared by all. Let [cultural] geography flourish where the roots are to be searched through the present, but envisioned it into the better future" (Singh and Singh 2022: 156).

References

Adams PC, Hoelscher S, Till KE (eds) (2001) Textures of place: exploring humanist geographies. University of Minnesota Press, Minneapolis

Adler CE, McEvoy D, Chhetri P, Kruk E (2013) The role of tourism in a changing climate for conservation and development. A problem-oriented study in the Kailash Sacred Landscape, Nepal. Policy Sci 46(2):161–178

- Anderson B (2019) Cultural geography III: the concept of 'culture'. Prog Human Geogr. Online publication https://doi.org/10.1177/0309132519856264
- Aukland K (2016) Retailing Religion: guided tours and guide narratives in Hindu pilgrimage. Tourist Stud (Sage Publs.)16(3):113–130
- Bhardwaj SM (1973) Hindu places of Pilgrimage in India: a study in Cultural Geography. University of California Press, Berkeley
- Chatterji A (2014) The making of the Indian landscape, 2 vols. Aryan Books International, New Delhi
- Eck DL (2012) India: a sacred geography. Harmony Books, Random House, New York
- Ghosh M, Ghosal S (2019) Historical geography of forestry and forest culture in Sub-Himalayan West Bengal, 1757–2015. Space Cult, India 6(5):215–227
- Hilaly S (2018) Culture of friendship among the Apatanis of Arunachal Pradesh. Space Cult, India 6(1):38–50
- Kapur A (2019) Mapping place names in India. Routledge, Delhi
- Kumar S, Singh RPB (2013) Waterfront cultural landscape of Ayodhya (India), an ancient sacred abode of Gods. South Asian Affairs (Gifu, Japan) 9:6–17
- Kumar S, Singh RPB (2015a) Cultural-heritage tourism in Ayodhya-Faizabad: scenario and prospects. Geographer (AMU Aligarh) 62(2):66–74
- Kumar S, Singh RPB (2015b) Interfaces of Hindu pilgrimage routes and agricultural landscape: a study of Ayodhya (India). In: Kohdrata N (ed) Proceedings, 4th ACLA international symposium on agricultural landscape of Asia: learning, preserving, and redefining, 11–13 Sept 2015, Udayana University, Denpasar, Bali, Indonesia, pp 38–49
- Kumar S, Singh RPB (2016a) Ayodhya, the holy city of India: riverfront and a place of Indo-Korean interfacing symbolic Landscapes. Sthapatyam, Indian J Archit Art 3(6):101–116
- Kumar S, Singh RPB (2016b) Ritual landscapes of Ayodhya (India) in the context of multicultural religious belongingness. In: Tajai S (ed) Proceedings, the 5th ACLA international symposium on 'sacred sites, cultural landscapes, and harmonizing the world of Asia': 2–5 Dec 2016, Lampang Rajabhat University, Lampang, pp 174–183
- Kumar S, Singh RPB (2017a) Ayodhya, India: cultural landscape and perspectives for inclusive heritage development. Context: built, living and natural [DRONA, Gurgaon, India], vol XIII (special issue on 'Cultural Landscapes'), pp 21–30
- Kumar S, Singh RPB (2017b) Rationales for inscribing "the heritage sites, riverfront and pilgrimages routes of Ayodhya" in the UNESCO World Heritage List. Sthapatyam, Indian J Archit Art 3(9):51–78
- Kumar S, Singh RPB (2017c). Muslim cultural landscapes of Ayodhya-Faizabad (India): a geographical Scenario. Geogr (AMU Aligarh) 64(2), 95–109
- Kumar S, Singh RPB (2019) Ayodhya: a study of urban governance and heritage inclusive development. In: Sharma VR, Chandrakanta (eds) Making cities resilient. Springer International Publisher AG, Dordrecht and New York, pp 317–338
- Maddrell A (2009) An interview with Anne Buttimer: an autobiographical window on geographical thought and practice 1965–2005. Gend Place Cult 16(6):741–765
- Malville JM, Singh Rana PB (1995) Visual astronomy in the mythology and ritual of India: the Sun temples of Varanasi. Vistas Astron 39(4):431–449
- Nattier J (1997) Buddhism comes to main street, Wilson Quarterly, 1997(2):72-78
- Park C (2004) Religion and geography. In: Hinnels J (ed) Routledge companion to the study of religion. Routledge, London, pp 414–445
- Relph E (1976) Place and placelessness. Pion, London. ISBN 978-0850861761
- Rogers A (2018) Advancing the geographies of performing arts: international aesthetics, migratory mobility and geopolitics. Prog Hum Geogr 42(4):549–568
- Sauer CO (1963) Land and Life. A Selection from the Writings of Sauer CO (ed) John Leighly. University of California Press, Berkeley
- Schwartzberg JE (1983) The state of South Asian Geography. Prog Geogr, Arnold, London 7:69-72

- Schwartzberg JE (1998) Geography. In: Elder JW, Dimock EC Jr, Embree AT (eds) India's World and US Scholars, 1947–1997. Manohar Books, New Delhi for the American Institute of Indian Studies, New Delhi, pp 237–263
- Sharma S (2018) The heritage issue in India. Space Cult, India 6(3):1-4
- Silvey R (2013) Political moves: cultural geographies of migration and difference. In: Johnson NC, Schein RH, Winders J (eds) The Wiley-Blackwell companion to cultural geography. Wiley, pp 409–22
- Singh JP, Khan M (2002) Mythical space cosmology and landscape: towards a cultural geography of India. Manak Publications, New Delhi
- Singh RPB (2002/2011) Towards the pilgrimage archetype. Panchakrosi Yatra of Banaras. Pilgrimage & cosmology series: 3. Indica Books, Varanasi
- Singh RPB (2004) Cultural landscapes and the lifeworld. The literary images of Banaras. Pilgrimage and Cosmology Series: 6. Indica Books, Varanasi
- Singh RPB (2009a) Uprooting geographic thoughts in India: toward ecology and culture in 21st century. Cambridge Scholars Publishing, Newcastle upon Tyne
- Singh RPB (2009b) Geographical thoughts in India: snapshots and visions for the 21st century. Cambridge Scholars Publishing, NewCastle upon Tyne
- Singh RPB (2009c) Cosmic order and cultural astronomy: sacred cities of India. Planet earth & cultural understanding series, Pub. 4. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (2012a) Cultural geography, India, 2008–12. In: Singh RB (ed) Progress in Indian geography. A country report, 2008–2012. For the 32nd International Geographical Congress, Cologne, Germany (26–30 Aug 2012). Indian National Science Academy, New Delhi, pp 81–96
- Singh RPB (2012c) The 51 Shakti Pithas in South Asia: spatiality and perspective for pilgrimagetourism. Orient Anthropologist 12(1):01–37
- Singh RPB (2012d) Hinduism and globalization: pilgrimage landscapes, spirituality and global message. In: Bulfirni C (ed) Religious traditions and contemporary asian societies/Tradizioni religiose e dell'Asiacontemporanea—Asiatica Ambrosiana, Saggi e ricerche di culturareligioni e societàdell'Asia [AA presso la Biblioteca Ambrosiana—Piazza Milano, Italy], nr 4, 159–191
- Singh, Rana P.B. (2012 e). Hindu pilgrimages and sacred sites in India: planning the sustainable religious tourism. In: Trono AT (ed) Sustainable religious tourism: commandments, obstacles, and challenges. Edizioni Esperidi—Monteroni di Lecce (Italy), pp 335–361
- Singh RPB (December 2012f) The Ganga river: images, sacrality and salvific places. Geogr Rev India 74(4):314–338
- Singh RPB (2013b) Muslim shrines and multi-religious visitations in Hindus' city of Banaras, India: co-existential scenario. In: Pazos AM (ed) Pilgrims and pilgrimages as peacemakers in Christianity, Judaism and Islam. Compostela international studies in pilgrimage history and culture, vol 4. Ashgate Publ. Ltd., Farnham, Surrey UK, pp 121–147
- Singh RPB (2013c) The Hindu family in indian society: perspectives and prospects. In: Angelillo M (ed) The Family in the Cultures and Societies of Asia/La famiglianelle culture e nellesocietàdell'Asia—[AA presso la Biblioteca Ambrosiana, Milano, Italy], nr. 5, pp 19–48.
- Singh RPB (2013d). Rural Cultural Landscapes of India. J Chinese Landscape Architect (Beijing) 29(215.11):18–24 (in Chinese pp 18–22, with detailed English summary pp 23–24)
- Singh RPB (2014a) Banaras: encountering the experiences and expositions of the spirit of place. In: Keul I (ed) Banaras revisited—scholarly pilgrimages to the city of light. Harrassowitz Verlag, Wiesbaden, Germany, pp 77–93
- Singh RPB (March 2014b) Interfaces between Hindu cosmology and Leonardo da Vinci. Sthapatyam, J Indian Archit Art 1(1):80–94
- Singh RPB (February 2015a) Banaras, the cultural capital of India: visioning cultural heritage and planning. SANDHI, J Interfacing Sci-Heritage Technol-Tradit India (IIT Kharagpur, WB India) 1(1):100–122
- Singh RPB (2015b) Waterfront cityscapes of Banaras: evolving sacredscapes, amusescapes and awfulness. In: Jinnai H, Takamura M (eds) Suitogaku: a theory for the study of water cities. Hosei University Press, Tokyo, pp 31–46 (in Japanese)

- Singh RPB (2015c) Heritage value of religious sites and built archetypes: the scenario of Hinduism, and illustrating the riverfront Varanasi. Based on a special address in the ICOMOS-UNESCO Conference, Seoul, Korea: 24 April 2015. Aatmoodh, J Knowl Self 12(1):1–23 (Spring)
- Singh RPB (2015d) Kashi: representation in the sacred cartographic art in the 19th century. In: Bulfoni C, Fasulo, Piccinini, Chiara F (eds) Le artinellastoria e nellesocietàdell'Asia/Arts in the history and society of Asia. Veneranda Biblioteca Ambrosiana—Milano, Italy, nr 7, pp 147–170
- Singh RPB (2015e) Hinduism: a pilgrimage without destination/Hindoeïsme: Pelgrimstocht Zonder Bestemming. In: Mettepenningen J (ed) GELOVEN—Spiritueledenkersuit de hele wereldgetuigen/BELIEVE—spiritual thinkers from around the world testify. Lannoo Uitgeverij, Tielt, Belgium & Ten Have Publ. Amsterdam, pp 193–198
- Singh RPB (2016a) Understanding place and envisioning the cosmos. In: Rodrigue B, Grinin L, Korotayev A (eds) From big bang to galactic civilization: a big history anthology, vol. 2, Education & understanding: big history around the world. Primus Publications, New Delhi, pp 451-458
- Singh RPB (2016b) Urban heritage and planning in India: a study of Banaras. In: Dutt AK et al (eds) Spatial diversity and dynamics in resources and urban development, vol II, Springer Science + Business Media, Dordrecht and New York, pp 423–449
- Singh RPB (2016c) Cultural geography, India, 2012–16. In: Singh RB (ed) Progress in Indian geography. a country report, 2012–2016. For the 33rd International Geographical Congress, Beijing, China (21–25 Aug 2016). Indian National Science Academy, New Delhi, pp 123–139
- Singh RPB (2018) Urbanisation in Varanasi and interfacing historic urban landscapes. In: Sudhakar GJ, Balaji G (eds) Urbanization in Indian history. C.P.R. Publications, C.P.R. Institute of Indological Research, Chennai, India, pp 83–135
- Singh RPB (2020) Sacrality and waterfront spaces in India: myths and making of place. In: Ray C (ed) Sacred waters: a cross-cultural compendium of hallowed springs and holy wells. Routledge, Taylor & Francis, London & New York, CA, pp 77–90
- Singh RPB (2011) Pilgrimage and religious tourism in India: Countering contestation and seduction; in, Singh RPB (ed) Holy Places and Pilgrimages: Essays on India. Shubhi Publications (Planet Earth & Cultural Understanding Series, 8) New Delhi, pp 307–334
- Singh RPB (2012b) Ecospirituality in Indian Tradition: Messages for Global Order. In: Tiwari DN, Mishra A (eds) Environment Ethics: Indian Perspectives. Department of Philosophy and Religion, Banaras Hindu University, Varanasi: pp 55–80
- Singh RPB (2013e) Indian Cultural Landscape vis-à-vis Ecological Cosmology: A Vision for the 21st Century. Annals, National Association of Geographers of India, Annals- NAGI (ISSN: 097-972X, NAGI New Delhi) December 2013, 33(2):36–62
- Singh RPB, Niglio O (2022) Introduction: Historic Cities and Cultural-Religious Heritage: Preservation & Regeneration. Esempi di Architettura, Int J Archit Eng (Aracne Editrice in Rome, Italy], 9(1-2):5–13
- Singh RPB, Singh RS (2022) Cultural Geography, India, 2016-22. In: Rai SC (eds) Progress in Indian Geography. A Country Report, 2016-22. The IGU International Geographical Union Centennial Congress, Paris, France (July 18-21, 2022). Indian National Science Academy, New Delhi: pp 121–154
- Singh RPB, Rana PS, Olsen DH (2022) The Environment as Sacred Space: Religious and Spiritual tourism in Hinduism. In: Olsen DH, Timothy DJ (eds) Routledge Handbook of Religious and Spiritual Tourism. London: Routledge: pp 135–151
- Singh RPB, Rana PS Kumar S (2020) Intangible dimensions of urban heritage: Learning from holy cities of India. In: Silva KD (ed) The Routledge Handbook on Historic Urban Landscapes of the Asia-Pacific. Routledge, Abingdon Oxon & New York: pp 275–291
- Singh RPB, Aktor M (2015) Hinduism and globalization. In: Brunn SD (ed) The changing world religion map: sacred places, identities, practices and politics, vol 3. Springer Science + Business Media B.V., Dordrecht & New York, pp 1916–1932

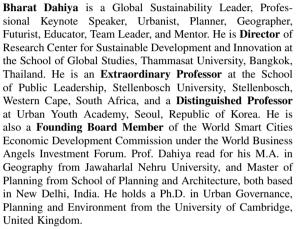
- Singh RPB, Haigh MJ (2015) Hindu pilgrimages and contemporary scenario. In: Brunn SD (ed) The changing world religion map: sacred places, identities, practices and politics, vol 2. Springer Science + Business Media B.V., Dordrecht & New York, pp 783–802
- Singh RPB, Kumar S (March 2018) Ayodhya: the imageability and perceptions of cultural landscapes. J Space Cult, India (ACCB Publs. England UK) 5(3)13–29
- Singh RPB, Kumar S (2020) Sacred-heritage city development and planning in India: a study of Ayodhya. In: Thakur R, Dutt A, Pomeroy G, Thakur S (eds.) Urban and regional planning and development: 20th century forms and 21st century transformations (Festschrift to Prof. Frank J. Costa). Springer Nature Switzerland AG Dordrecht and New York, pp 301–320
- Singh RPB, Kumar SR, Pravin S (2020a) UN SDGs and context of heritage cities in India: a study of Ayodhya and Varanasi. In: Sahdev S, Singh RB, Kumar M (eds) Geoecology of landscape dynamics. Advances in geographical and environmental sciences. Springer Nature, Singapore, pp 121–140
- Singh RPB, Rana PS, Kumar S (2020) Intangible dimensions of urban heritage: learning from holy cities of India. In: Silva KD (ed) The Routledge handbook on historic urban landscapes of the Asia-Pacific. Routledge, Abingdon Oxon & New York, pp 275–291
- Singh RPB, Kumar S, Rana PS (2020b) Appraising sacrosanct environment in India: a study of ritualscapes of Ayodhya. In: Thakur R et al (eds) Environment, development and culture: global perspectives, a festschrift for Prof. Pradyumna Prasad Karan. Springer Nature, Dordrecht & New York, CA, pp 251–266
- Singh RPB, Rana PS (2016b) Banaras, the cultural capital of India: visioning cultural heritage and planning. In: Bharne V (ed) Routledge companion of global heritage conservation. Routledge, Taylor & Francis, London/New York/New Delhi, pp 45–56
- Singh RPB, Rana PS (2016c) Heritagescapes of India: Contemporary scenario and programmes for conservation. In: Sardella F, Larsson G, Enstedt D (eds) Images and the cognitive worlds. LIR Gothenburg University Press, Gothenburg
- Singh RPB, Rana PS (2020) Faith and place: Hindu sacred landscapes of India. In: Edensor T, Kothari U, Kalandides A (eds) Routledge Handbook of Place. Routledge, Taylor & Francis, London & New York, pp 95–108
- Singh RPB, Singh RS (2004) Cultural geography. In: Sharma HN (ed) Progress in Indian geography 2000–2004: a country report. Indian National Science Academy, New Delhi, pp 139–146
- Singh RPB, Singh RS (2008) Cultural geography. In: Nayak DK (ed) Progress in Indian geography 2004–2008: a country report. Indian National Science Academy, New Delhi, pp 81–88
- Singh RS (2003) Place, people and partition: a literary geography study of Rahi Masoom Raza's Adha Gaon ("half village"). Ann, Natl Assoc Geogr India 23(2):45–53
- Singh RS (2009a) Cultural geography in India: nature of its marginality and future agenda. In: Singh RS (ed) Indian geography in the 21st century: young geographers agenda. Cambridge Scholars Publishing, New Castle Upon Tyne U.K., pp 230–258
- Singh RS (2009b) The goddess Kamakhya temple complex: symbolism, sacredscape, and festivals. Man India (Special Issue/March–June) 89(1–2):121–140
- Singh RS (2020a) The Status of Indian Geography in the 21st Century: A Contextual Analysis. Unpublished D.Litt. dissertation in Geography, Banaras Hindu University, Varanasi
- Singh RS (2020b) Interpreting Culture, Society and Space: Folk Music Perspective. Space and Culture, India, 8(1):14–20
- Singh RS, Ahmad S (2021a) Geography of Pilgrimage with Special Reference to Islam. Space and Culture, India (ACCB Pub., England), 8(4):7–21
- Singh RS, Ahmad S (2021b) Water in Cultural Perspective with Special Reference to Islam. In: Pandey, Wasini B, Subhash A (eds) Water Science and Sustainability. Springer Nature Switzerland AG, Cham: 147–155
- Singh RS, Singh S, (2019) Landscape, Culture and Cinema: A Study in Film Geography. Indian J Landscape Syst Ecol Stud, 42(1):101–114
- Singh RS, Ghosh PS (2019) Potential of mining tourism: a study of select coal mines of Paschim Bardhaman district, West Bengal. Indian J Landscape Syst Ecol Stud 42(1):101–114

- Singh RS, Sugandh (2017) Matrimony marriage and migration in Mithila region, India: an exploratory geographical study of Saurathsabha. Natl Geogr J India 63(4):49–59
- Sinha A (2014) The sacred landscape of Braj, India: imagined, enacted, and reclaimed. Landsc J 33(1):59–75
- Smith JM, Foote KE (1994) Introduction. In: Foote K, Hugill P, Mathewson K, Smith J (eds) Re-reading cultural geography. University of Texas Press, Austin, pp 27–33
- Sopher DE (2009) (first in 1973) Towards a rediscovery of India: thoughts on some neglected geography. Reprinted in, Rana P. B. Singh, uprooting geographic thoughts in India: toward ecology and culture in 21st century. Planet earth & cultural understanding series, Pub. 1. Cambridge Scholars Publishing, Newcastle upon Tyne UK, pp. 270–294.
- Thakur N (2012) The Indian cultural landscape: protecting and managing the physical to the metaphysical values. In: Taylor K, Lennon JL (eds) Managing cultural landscapes. Routledge, London and New York, pp 154–172
- Tuan Y-F (1977) Space and place: the perspective of experience. University of Minnesota Press, Minneapolis
- Wagstaff JM (ed) (1987) Landscape and culture: geographical and archaeological perspectives. Wiley-Blackwell, Oxford and New York
- Whatmore S (2006) Materialist returns: practising cultural geography in and for a more-than-human world. Cult Geogr 13(4):600–609
- Wylie J (2016) Timely geographies: 'new directions in cultural geography' revisited. Area 48(3):374–377



Ravi S. Singh received higher education from B.H.U. (B.A. Hons), J.N.U. (M.A. & M.Phil.), and J.P.U. (Ph.D.). His doctoral research is in geography of sacred places dealing with goddess places in India. With over 22 years of teaching experience at different institutions, he is currently Professor at the Dept of Geography & Adjunct Faculty: Bhojpuri Study Centre, Banaras Hindu University. He has authored/edited nine books published from India and abroad, including two in press. Over 100 academic works of different genres of Prof. Singh, many of them cross-disciplinary, are published internationally as well as nationally in reputed journals and research series from the United Kingdom, Japan, Germany, Sweden, Nepal etc. including one in impact factor journal. Associated with several prestigious national and international professional bodies and academic programmes, he is Member: State Higher Education Council, Uttarakhand (since August 2017), Vice-President: Indian Society of Spatial Science Kolkata (3rd term), and Secretary: The Institute of Indian Geographers, Pune (2 terms), Treasurer: National Geographical Society of India (Varanasi, India) and member on the editorial boards of several journals. Prof. Ravi Singh has the honour of delivering the 31st Prof. Nirmal Kumar Bose Memorial Lecture at the Geographical Society of India (Kolkata, 2014), Professor Enavat Ahmad Memorial Lecture (Ranchi, 2015), Prof. R.N. Dubey Memorial Lecture (Allahabad, 2019) and over six dozen invited lectures in different institutions across India. He has been Enrichment Fund (Association of American Geographers) Awardee, 2011; and Academic Advisor: The United States-India Educational Foundation, USIEF (2015-16). Prof. Singh has also the credit of contributing to over three dozen international and national

seminars/conference/workshops on cross-disciplinary themes as Chief Guest, Guest of Honour, Keynote Speaker, Session Chair, Invited Speaker, and paper presenter in India and abroad in recognition to his professional expertise; and, organising seven national/international seminars/conference/workshops. He has supervised/supervising fourteen doctoral/post-doctoral research fellows. His foreign academic visits have been to the USA, Poland, The People's Republic of China, Sri Lanka, and Nepal. The main areas of his academic interest are geographical thought, geography education, social and cultural geographies, and development geographies with special focus on environment-development interface.



An award-winning urbanist, Prof. Dahiya combines research, policy analysis and development practice aimed at examining and tackling socio-economic, cultural, environmental and governance issues in the global context of sustainable development. Since early-1990s, his research and professional work has focused on sustainable cities and urbanization, strategic urban planning and development, urban environment and infrastructure, urban resilience, and cultural heritage and landscapes. Working with the World Bank, UN-HABITAT, the Asian Development Bank, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), and UNDP, he initiated, led, and contributed to international projects on sustainable urban development in a number of countries. Prof. Dahiya conceptualized and coordinated the preparation of United Nations' inaugural report on The State of Asian Cities 2010/11. At the World Bank headquarters, he conducted the first-ever systematic review of the Bank's investments for improving urban liveability, published as a co-authored book, Urban Environment and Infrastructure: Toward Livable Cities (2004). More recently, he co-authored Partnering for Sustainable Development: Guidelines for Multistakeholder Partnerships to Implement the 2030 Agenda in Asia and the Pacific (UNU-IAS, and UN-ESCAP, 2018), and



co-edited New Urban Agenda for Asia-Pacific: Governance for Sustainable and Inclusive Cities (Springer, 2020).

Prof. Dahiya advises a number of professional, academic, private sector, and non-profit organisations around the world. Since 2019, he has been a Member of the International Advisory Board for the UN-HABITAT's *World Cities Report* (Nairobi, Kenya). He is also a Member of the Advisory Group for *Future Earth Urban Knowledge–Action Network* (Montreal, Canada).

Since early-2014, Prof. Dahiya has been the Series Editor for the SCOPUS-indexed Springer book series, Advances in 21st Century Human Settlements, which has a growing collection of monographs and edited volumes. He serves on the editorial boards of the Italy-based Geographies of the Anthropocene book series, and several journals: Environment and Urbanization ASIA, Journal of Urban Culture Research, ICON: Journal of Archaeology and Culture, National Geographical Journal of India, Chinese Journal of Population, Resources and Environment, and Jindal Journal of Public Policy. He has held academic positions in Australia, Indonesia, South Africa, and Thailand. Reuters, Inter Press Service, SciDev.Net, Nishi-Nippon, The Korean Economic Daily, China Daily, The Hindu, Deccan Herald, Bangkok Post, The Nation, UB Post, The Sunday Times, and Urban Gateway have quoted Prof. Dahiya's work.

For his professional contributions to sustainable urban development in Mongolia, the Government of Mongolia awarded Prof. Dahiya with a *Certificate of Honour*, and the Municipal Government of Ulaanbaatar decorated him with a *Medal of Honour*. In December 2021, the Global Council for the Promotion of International Trade conferred a *Global Sustainability Award 2021* on Prof. Dahiya.

Arun K. Singh (M.A., M.Phil., Ph.D.) is a professor of Geography at Banaras Hindu University, Varanasi since June 2010. On 20 March 2022, he was appointed as the registrar of Banaras Hindu University. Before joining Banaras Hindu University as a reader in June 2007, he had served for 14 years in the Department of Higher Education, Govt. of Madhya Pradesh, and contributed to the field of teaching, training and capacity building. His area of interest includes urban geography, population geography, economic geography, and participatory planning. He has around 45 research papers to his credit published in professional journals and edited volumes, edited three books, and attended more than 40 national and international seminars/conferences. He has been associated with projects on Impact Assessment of 74th Constitutional Amendment Act sponsored by the Government of Madhya Pradesh, Capacity Building for Poverty Reduction (Department for International Development, DfID), Capacity Building for Access to Information (United Nations Development Programme), State Development Report (Madhya Pradesh) on Urban and Environment (Housing and Urban Development Corporation Ltd-Human Settlement Management Institute, HUDCO-HSMI), and



completed one Major Research Project on Urban Water Supply and Sanitation in Varanasi and Adjoining Districts as a principal investigator funded by the University Grants Commission, New Delhi.



Padma C. Poudel earned his Ph.D. from Bananas Hindu University (Varanasi, India) on the topic "Tourist Resources and Environmental Appraisal of Pokhara Region, Nepal: A Geographical Analysis" as a Faculty Development Programme scholar of Tribhuvan University (Nepal), under the supervision of Professor Rana P. B. Singh. He was Professor of Geography at Tribhuvan University, Kirtipur (Kathmandu, Nepal). His research involves in environment, climate change, livelihood, tourism, agriculture, irrigation, urban development and management and sustainable development. He adopts interdisciplinary approaches that holistically consider natural environment and built environment and human activities. He has been involved in various national and international research projects in different capacities. He has several national and international publications to his credit. His books are prescribed as text and reference books in the curriculum of graduate and post-graduate programmes in geography of Tribhuvan University.

He has held several prestigious academic and administrative positions like the Head of Central Department of Geography, Tribhuvan University (2012-2016), Senate Member of Tribhuvan University (2015-2016), Service Commission Member of Pokhara University (2014-2017), Member of Academic Council of Tribhuvan University (since 2014), Coordinator of Municipal Determination Committee of Nepal (2013), and Chairman of Geography Subject Committee (2012-2016); Member: Faculty Board of Faculty of Humanities and Social Sciences (2009-2016); General Secretary of Nepal Geographical Society (2002-2017); Vice-President: Nepal Scientific Activities and Research Centre (Kathmandu), and editorial board member of Nepal Tourism and Development Review (Nepal Tourism Board, 2011), The Himalayan Review (Nepal Geographical Society, since 2002), Corresponding Editor: The National Geographical Journal of India (Varanasi). As an expert consultant, he also worked in Nepal Tourism Board, United Nations Development Programme (UNDP), International Labour Organization (ILO), and with foreign universities like Australian National University (Australia), Michigan State University (USA), and Aalborg University (Denmark).

Rana Pratap Bahadur Singh, '*Rana-Ji*': Academic Contributions, Professional Career and Recognition



Ravi S. Singh and Bharat Dahiya

Abstract This essay presents an account of Professor Rana P. B. Singh's academic contributions, professional growth and career and academic recognition. He is wellknown as a leading academic figure in Indian geography. He has enriched the discipline of geography through his immense contributions, especially on cultural geography, from the perspective of an Indian academic. It will be fitting to say that Rana Singh brought to cultural geography what David Sopher (2009, first in 1973) called an Indian 'dweller's perception'. He is one of the very few geographers of India who have contributed to a multitude of cultural and socio-economic aspects, ranging from villages to cities, visual to cosmology and from theoretical construct to grassroot realities. Known to his colleagues, friends, followers and admirers as 'Rana-ji', he has contributed not only to his parent discipline of Geography but also to the latter's sister disciplines, such as heritage studies, cultural landscape studies and planning, ecotourism, pilgrimage studies, cultural astronomy and architectural symbolism, environmental ethics, humanism, rural land use and settlements through his numerous publications in India and abroad. Conceiving his resident holy-heritage city of Banaras/Varanasi as 'complex whole' and 'axis mundi' within the purview of archetypal symbolism, during the last four decades he studied and projected it in different contexts.

Keywords Cultural geography · Pilgrimage studies · Heritage · Settlement geography · *Mandala* · Sacred landscape · Cultural astronomy

R. S. Singh (Deceased)

B. Dahiya (🖂)

© Springer Nature Singapore Pte Ltd. 2022

Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh 221005, India e-mail: ravis.singh1@bhu.ac.in

School of Global Studies, Research Center for Sustainable Development and Innovation, Thammasat University, Pathumthani, Thailand

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_2

1 Background

Rana Pratap Bahadur Singh, popularly known as 'Rana-ji' by his colleagues, friends, followers and admirers, was born on the 15th December 1950 in a joint family in his ancestral village of Majhanpura (district Saran) in the state of Bihar. After his mother's death, when he was barely four years old, initially his aunts took care of him. Later, the young boy was brought to his *phua* or *bua*-ji (paternal aunt—his father's sister) for proper care and upbringing. Thus, he was born in one family and brought up by another one (Fig. 1).

Early life of Rana-ji was interesting, unlike an ordinary village boy. Young Rana lived under the patronage of a local saint Svami Sarayudas, known as 'Sisvaniya Baba' (1845–1972) in a monastic system for around 5–6 years and grew up under the saint's guidance. Svami Sarayudas provided informal education to young Rana on Hindu religious scriptures in a traditional manner. Later, this became Rana-ji's strength as he started researching different aspects of the geography of belief systems. He received his primary education in the Basti district because the head of the family, which had adopted young Rana, was the Deputy Inspector of Schools posted there and his family lived with him. In high school (1963), he had changed his stream from science to arts. He completed his twelfth-grade education in 1965.

During his 10th–12th grade studies, young Rana came across a self-inspired and spirited teacher of geography, Mr. Krishna Kumar Mishra (ca 1914–1977), whose teaching method, far ahead of his times, involved what we call participatory teaching and learning today. Another teacher was Dr. Kamaleshwar Prasad Tripathi (1943–2011) who groomed Rana-ji in English and Geography at Bachelor level. That is how Rana-ji was initiated into Geography and inherited academic values and good practices through his personal experiences with these two teachers and other people in his life who were inspiring and encouraging.

2 Education and Professional Career

After completing his graduation from Satish Chandra Degree College located in Ballia (U.P.), Rana-ji moved to Banaras. He began his academic life at Banaras Hindu University (BHU) from where he earned his M.A. in Geography degree in 1971. He completed his doctoral research under the supervision of Professor Ram Lochan Singh (1917–2001), one of the deans and doyens of Indian Geography. Rana-ji was awarded Ph.D. in 1974 for his doctoral thesis titled *Clan Settlements in the Saran Plain, Middle Ganga Valley: A Study in Cultural Geography* that was later published by the National Geographical Society of India (NGSI) in 1977. During 1971–1977, he received a UGC Junior Research Fellowship, a Senior Research Fellowship and a Post-Doctoral Fellowship at the Department of Geography, BHU.

He started his teaching career at his *alma mater* Department of Geography, BHU where he joined as a lecturer in September 1977 and held this position till 05 August



Fig. 1 Prof. Rana P. B. Singh, 15th of December 2017 (his 67th birthday), enjoying nature in his garden. *Source* Rana P. B. Singh

1980. During 07 August–31 December 1980, he was a Japan Foundation Senior Fellow in Geography at Okayama National University, Japan and worked with Prof. Shogo Yuihama (1927–2013). In 1981, he was offered the job of Visiting Professor of Geography and Environmental Systems at Virginia Tech (V.P.I. & State University), Blacksburg, VA, the U.S.A. which he joined on 01 January 1981 and was able to remain there till 30th of April 1981; however, soon afterwards he had to return back to India. The next appointment of Rana-ji was as a CSIR (New Delhi) Scientist-Pool at Institute of Advanced Studies, Meerut University, Meerut which he joined on the 16th of May 1981 and continued there up to 15th of November 1983. In the meanwhile,

he got the opportunity to join BHU on the 16th of November 1983 and continued in this position for five years till 16th November 1988; after which he was promoted to the position of Senior Lecturer, the position he continued with till 06 January 1991. After his due promotion was processed, he became Reader (Associate Professor) in Geography and served till the 6th of January 1999. At the age of 48 years, after a long academic journey of around a quarter century, he got the position of Professor of Geography (with specialisation in Cultural Landscapes and Heritage studies), which he joined on the 7th of January 1999 and held till 30th of June 2016. Rana-ji was appointed as Head of the Department of Geography, BHU, on the 1st of February 2013 and led the department till his retirement on 31st of December 2015.

3 Academic Contributions

This is commonly accepted that geographers have not always been learners of history, philosophy, or even sometimes geographies of geography. There are examples of exceptions, when geographers are relatively more accepted and recognised in other disciplines, like Carl Sauer in landscape architecture, Yi-Fu Tuan in placepsychology, Barry Rodrigue in Big History and so on. In India, this is true in the case of Rana P. B. Singh, who is also known in the fields of landscape architecture, cultural heritage, literary symbolism, cultural astronomy, urban history, etc. However, the invisible roots of geography have constantly been in his writings under the purview of "crossing boundaries", that is how he narrates the sacrality of space and spatiality of time enveloping within cosmality and makes bridges between "realization" (anubhava)—Experientiality and "revelation" (anubhuti)—Self-awakening. Following Sauer's (1963: p. 321) prophecy that "Modern geography is the modern expression of the most ancient geography", Rana-ji took this as a guideline for his walk on the geographic path in search of the roots through rethinking, rethinking, introspecting the vision and above all through clairvoyance and revelation to make the enterprise of Indian geography rewarded and get inculcated its integrity and distinction (cf. Singh 2009a: p. 40-41).

In his long and illustrious career, Rana P. B. Singh has made several notable academic contributions to the discipline of Geography and allied subjects. The recognised academic contributions made by Rana-ji include spatio-temporal dimensional theory of diffusion; space articulation theory in Indian villages; literary images and spirit of place; ritual *mandala* and sacrality of space and time, pilgrimage *mandala*, sacred geography and cosmic order of holy places; geomancy and cultural symbolism in Hinduism; concepts of sacredscape and faithscape; pilgrimage systems and Self-Organised Criticality theory, cultural astronomy and ordering of sacredscapes and holy cities; and, architectural symbolism and heritage planning. In the rest of this section, we have divided Rana-ji's academic contributions into four time periods, continuing till the time of writing of this paper.

3.1 Period Between 1974 and 1980

Rana-ji had academic zeal right from his master's days. Soon after the award of his Ph.D. in 1974, his independent work on pattern analysis of rural settlements was published in the June issue of the National Geographical Journal of India (vol. 20, 1974), one of the reputed quarterly journals of those days. After which he never turned back. Within a span of just five years, he was able to publish 41 articles and book chapters, the majority of which were either self-authored or jointly with his mentor and supervisor Professor R. L. Singh (1917–2001), one of the stalwart figures of Indian geography and the pioneer of Banaras School of Geography with whom he co-edited two monographs and seven research anthologies. On the publication of Rana-ji's doctoral thesis as a book, Clan Settlements in the Saran Plain (Middle Ganga Valley): A Study in Cultural Geography (1977), Prof. R. L. Singh, his supervisor, said that it held considerable merit in that it brought out an amalgam of the qualitative and quantitative approaches, techniques and methods so profusely adopted by geographers in India and abroad. Many national and international scholars appreciated this work on a complex issue in the spatio-temporal dimension in a scientific approach and in its all standard which they found an important contribution in the field of rural settlement geography.

In this period, he has published *Rural Development in Indian Environment: A Case* of Chamaon Gram Sabha (1977) and Spatial Planning: An Approach towards Theory and its Application (1978) with his mentor Professor R. L. Singh in the NGSI research publication series; both publications were highly acclaimed by the peer reviewers from across the world. The other anthologies he was associated with during this period were *Place of Small Towns in India* (1979) and *Rural Habitat Transformation in World Frontiers* (1980) both with R. L. Singh. With Shogo Yuihama, Rana-ji also put together an international volume *Changing Scenario of Rural Habitat in Developing Countries* (1980), which was the proceedings of the 24th 1980 IGC Okayama University (Japan) Symposium. Besides these edited volumes, he has published over 50 papers on rural settlements, habitats and their transformation barring a few exceptions, very much in tune with the tradition that R. L. Singh had established at BHU's Department of Geography.

3.2 Period Between 1980 and 1990

The decade of 1980s was important for Rana-ji for many reasons. On one hand, he published two monographs in his early research interest in rural studies, which was a major turning point in his academic life. His next major work was *Changing Japanese Rural Habitat: The Agricultural Dimension* (1981) co-authored by Rana P. B. Singh with Shogo Yuihama; it dealt with agricultural perspective in reference to the Japanese Rural Habitat system particularly in Okayama taking micro-level examples of Takamatsu No-kyo ('farmers' cooperative'), Niiike village and the Kojima Bay

area (especially Kojo), the authors evaluated and presented the policy-framework, administrative mechanism and related problems with a view to developing an optimal model of development. The work was highly commended by the Japan Foundation, Tokyo. Prof. Akin L. Mabogunje, President, International Geographical Union, said, "I am impressed that this study offers a new dimension in looking at the problems of the Rural Habitat" (ibid. p. 10).

The next monograph, *Changing Frontiers of Indian Village Ecology: Case of a Bihari Village, Majhanpura* (1981), was co-authored by Rana P. B. Singh with his brother Ram Babu Singh. It was their native village, where they were born and knew its soil, culture and people. They studied Majhanpura village from different perspectives like the land characteristics, social structure along with the historical outline and presented the traditional restraining barriers for planning an interdisciplinary approach. Prof. Walther Manshard (Germany), Secretary-General of the International Geographical Union (IGU), termed this work as 'exemplary micro-level study promoting public-participation for a better life necessary to achieve the optimal frame of planning which the authors duo had discussed in the last chapter' (ibid. p. 9). In the same vein, Prof. Brian J. Murton (USA) said, "It is an excellent statement of how rural geography should be carried out and where it should be directing its findings: not only to the theoretical realm of formal geography but to the real world of rural problems and their solutions". (ibid. p. 11).

The publication of 'Socio-cultural space of Varanasi' in Jan Pieper's edited '*Ritual Space*' published under the *Art and Archaeology Research Papers series* (1980, London) motivated Rana-ji to look beyond rural settlement studies. As elaborated, in his interview in Chap. "Making of a Dweller Indian Cultural Geographer" of this book, the independent authorship of this article, as very interesting and rare support from the internationally acclaimed architecture historians like Neils Gutschow (Germany) and George Michell (U.K.), helped Rana-ji leave behind almost a decade long association with themes such as rural settlement geography, rural development and rural habitat transformation and turned him into a totally new direction of understanding cultural and sacred landscapes and heritage and deciphering the meaning of archetypal symbolism, spirit of place (*genius loci*) and heritage values.

This newly found zeal resulted in well-acclaimed works like Where Cultural Symbols Meet: Literary Images of Varanasi (Singh, 1989), Sarnath: Cultural Heritage, Museum, Tourism (co-authored, Lata and Singh 1991) and research anthologies like Trends in the Geography of Belief Systems: Festschrift to Angelika Sievers; Trends in the Geography of Pilgrimages: Homage to David Sopher (1987) and Literature and Humanistic Geography (1990). During this period, most of his attention was on cultural landscapes and heritage and associated symbolism, the geography of religion including pilgrimages and sacredscapes. In the other two and half a dozen works published in this period, Rana-ji could be clearly seen in a transitory period about his academic interest. During this period, he has appeared to be continuing with his initial research interest in rural geography as well as in the various other issues concerned with cultural geographies and also in sacred landscape geography.

3.3 Period Between 1990 and 2000

During the nineties, Rana-ji was totally involved with the newfound passion for sacred landscape geography, pilgrimage studies, sacred geometry and similar themes working on his international projects collaboration in association with institutions like Centre for Environmental Tech., Imperial College at Silwood Park (UK), University of Colorado, Boulder (USA), German Research Council: South Asian Institute, University of Heidelberg (Germany); and internationally recognised scholars like (late) Paul Simpson-Housley and Peter Preston, John McKim Malville, Brian Shaw and Roy Jones, David Simon and (late) Anders Närman, (late) Anne Buttimer and Luke Wallin, Surender Bhardwaj, Gisbert Rinschede and (late) Angelika Sievers, James Swan and Roberta Swan and many more. Of these, he worked in close collaboration with American astrophysicist John McKim Malville and produced praiseworthy works on cultural astronomy and sacred geometry of holy places in India. In the meanwhile, he was actively involved in promoting and giving direction to Varanasi studies, directing through spiritual and pilgrimage tourism and tours; slide-show lectures on sacred places in and around Varanasi and mass awakening for heritage preservation in the city. It was another rewarding period for Rana-ji as he published 56 papers mostly authored by him, however some with his fellow collaborators.

Environmental Experience and Value of Place (co-edited with Singh 1991), an anthology of 15 essays has further added a new perspective to landscape studies. The following year appeared *The Roots of Indian Geography: Search and Research* (co-edited with Singh 1992), containing 29 essays, which mirrored the evolving thought process in different fields practised in Indian geography. The following work was *Environmental Ethics: Discourses and Cultural Traditions. A Festschrift to Arne Naess* (1993) in which 20 essays authored by specialist scholars were in tune with the contemporary environmental concerns felt global. *The Layout of Sacred Places: Architecture & Behaviour* (1993, Lausanne, Switzerland); *Banaras (Varanasi): Cosmic Order, Sacred City, Hindu Traditions* (1993); *The Spirit and Power of Place: Human Environment and Sacrality* (1994)—an anthology of 26 essays; and *Changing Land and Environment Systems: Scenario to Sustainability* (2000)—co-edited with S.B. Singh and V. K. Kumra were the major works with which Rana-ji was involved.

3.4 Rana-Ji's Academic Contributions in the Twenty-First Century

With the growing age, Rana-ji has appeared more prolific and produced research works more vigorously. In the twenty-first century, besides the publication of over 150 research articles and papers, he started two book series, namely 'Pilgrimage & Cosmology Series' and 'Planet Earth & Cultural Understanding' under which 14 titles were already published.

Towards the Pilgrimage Archetype: Pañcakroshī Yātrā of Banaras (2002, 2nd ed. 2015) was the first title based on the Rana-ji's two decades of experience; it may be considered as the first book-length study on the cosmic circuit of Panchakroshi pilgrimage around Banaras and associated inter circuit '*antatgriha yatra*' (*inner sanctum* circuit), a continuous tradition at least since the sixteenth century. Taking contextual milieu, cultural metaphor, cosmogonic meaning associated with the sacred territory and pilgrimage, all the 108 shrines and images are mapped and narrated to understand the distinctiveness and diversity of sacredscapes and the associated rituals. The author has also narrated the notions of sacrality of time and temporality of sacredness in a spatial frame. More recently the architectural symbolism and design aspects of Panchakroshi Yatra have further been studied (Singh and Kumar 2022).

Cultural geographers have considerably appreciated the literary images of the landscape. Rana-ji in the book *Cultural Landscapes and the Lifeworld: Literary Images of Banaras* (1989, revised and expanded in 2004) has tried to capture the literary images of Varanasi based on individual writings on Banaras, the city known as the cultural capital of India and the holiest city for Hindus. He has included the works of Kabir, Tulasi, Mirza Ghalib, Bhartendu Harishchandra, Rudra 'Kashikeya', Shivprasad Singh, Bhishm Sahni, Raja Rao, Abdul Bismillah, Kashinath Singh and Pankaj Mishra to construct the varying and distinct images of the city. This is the only book of its kind written by a geographer (Fig. 2).

Banaras Region: A Spiritual and Cultural Guide (2002, 2nd ed. 2022, co-authored with Pravin S. Rana) is the first attempt of its kind that introduces a reader in academic-cum-popular way to the Banaras region describing geographical setting, historical background, religious landscape, the cosmogony, festivities, riverfront landscape and seven detailed area walks along the *ghats* (stairways) and in the old city and also Sarnath, the sites related to Jainism, the Muslim sacredscapes (in and



Fig. 2 Prof. Rana P. B. Singh, 12th of Nov. 2018, visiting a monastery in Gangtok, Sikkim. *Source* Rana P. B. Singh

around Banaras) and the rural landscape of the surrounding countryside. It also covers places within the range of 300-km, including Ayodhya, Khajuraho, Sonepur, Deo, Gaya and Baijnath Dham.

The book *Where the Buddha Walked: A Companion to the Buddhist Places of India* (2003) is a treatise on all the 15 places that are closely associated with the life of the Buddha: Lumbini, Kapilavastu, Bodh Gaya, Gaya; Sarnath, Shravasti, Kaushambi, Rajgir, Nalanda, Patna, Vaishali, Kesariya, Kushinagar, Sankisa and Mathura, containing a description in terms of history, culture, local tales, spatial vision and the inherent message.

Banaras, the Heritage City of India: Geography, History and Bibliography (2009e) is a compendium in which Rana-ji has presented general geographical background, followed by a brief historical outline, from the ancient most to recent, raising the issue of inscribing the heritagescapes, especially of the riverfront *ghats*, in line with the UNESCO Heritage criteria from a critical perspective. The most important section is that of the bibliographic sources (1276 entries) covering books in Hindi, English and German, articles in English, sources in Sanskrit Japanese and Persian, doctoral theses and University of Wisconsin India study projects in which the selected books are annotated. In addition, it has many useful lists of sacred sites, temples, festivities, riverfront *ghats*, etc.

Rana-ji's second research series 'Planet Earth & Cultural Understanding' was launched to celebrate 'learning to live together sustainably' under the aegis of United Nations Decade of Education for Sustainable Development (UNDESD, 2005–2014). This series was focused on understanding the interdependency and fragility of planetary life support systems and making better global citizenship that promotes a more humane and peaceful life and develops mass awakening for universal brotherhood. In this series, Rana-ji planned to publish innovative and interdisciplinary works that enhanced a better understanding and reverentially preserving those values of the past that helped humanity in achieving the basic goals of UNDESD and also to mark the celebration of the United Nations International Year of Planet Earth (2009-2010). This was in cooperation with the IGU Kyoto Regional Congress in 2013, which focused on 'Traditional Wisdom and Modern Knowledge for the Earth's Future'. 'Think cosmically, see globally, behave regionally and act locally but insightfully' (Singh 2009a: 147): this has been his appeal for cosmic vision, global humanism and 'Self-realization' (Sva-chetna). Rana-ji published nine books under this series during 2009-2013.

The first book *Uprooting Geographic Thoughts in India: Toward Ethics, Ecology and Culture in 21st Century* (Singh 2009a; Sopher 2009), was released at the 16th World Congress of the International Union of Anthropological and Ethnological Sciences, Kunming, P. R. China: 27–31 July 2009. This was the first book of this series in which Rana-ji tried to (re)enforce the idea of 'India', 'Indianness' and Indian Geography from a cultural point of view. He argued that the cultural turn and transformation of the new intellectual discourses, which started in the twenty-first century to search for the roots, have the potential for cross-cultural comparison and to see how the old traditions could be used to inform the contemporary worldviews. Undoubtedly, it was the first attempt of its kind in India not only to present a critique

but also to show the way forward. Views on this book of Professors David Simon, Jamie Scott, William Norton, Fukunaga Masaaki, Gerhard Gustafsson, John McKim Malville, Giuliano Bellezza and Martin Haigh were quite appreciative of the content and issues raised.

The second book of the series was *Geographical Thoughts in India: Snapshots and Vision for the 21st Century* (2009b), dedicated to David Sopher (1923–1984) and Fr. Thomas Berry (1914–2009), is a visionary attempt to examine and show in which areas of human geography, especially Indian geography to be seen within its roots. This book contains 11 chapters wherein the contributions on emerging geographical thoughts from India—that have historical and cultural roots emphasising mannature interrelationships and interactions, which helped to form a distinct culture enriched with metaphysics, literature, lifeworld, landscape, belief systems, sacred space, village life, heritage and even the contemporary worldviews. In his foreword, Prof. Martin Haigh from Oxford Brookes University, U.K., observed:

"For many years, it seemed that the Cultural Turn in Geography led into just a single culture, a Western hegemony of ideas, discourses and sentiments. Professor Rana P. B. Singh provides some balance and an alternative — the authentic voice of Indian tradition and philosophy. He brings to Geography, all Geography not just its Cultural wing, perspectives from ancient yet living traditions, which truly have heard most of those 'exciting new ideas from the West' long like Gaia and sustainable development itself, long before". (Haigh 2009, p. 5)

His statement well established the significance of such a work which not only provides an alternative but also adds to the 'balancing' of the East and the West. Fellow workers univocally praised the worthiness of the attempt and emphasised the further need for such analytical attempts rooted in the Indian cultural traditions and ancient knowledge system (Fig. 3–4).

The next book of the series entitled, *Banaras, Making of India's Heritage City* (2009c), dedicated to James Princep (1799–1840), was released at the International Seminar on 'Culture, Religion and Society in Asian Orient' 30–31 October 2009: Accademia Ambrosiana, Milano, Italy. It may be referred to as a comprehensive exercise on Varanasi. Writing the foreword to this volume, Prof. Niels Gutschow, noted:

"The 12 essays in this book are intertwined in sequel and maintaining continuity of the message that makes the book pioneering and challenging for understanding the most important sacred place (*tirtha*) of Indian culture, a potential World Heritage Site. I am sure this work will serve as [a] resource and role model, as an insightful guide for heritage studies and interdisciplinary ways of looking deeply into cultural landscapes— their multiple layers and networks" (Gutschow 2009c, p. 5).

Prof. Diana L. Eck, Professor of Comparative Religion and Indian Studies, Harvard University complimented Rana-ji by observing "No one has spent more years studying the sacred city of Banaras than Rana P. B. Singh and this volume gives us the fruit of his labours.... In this volume, he brings together decades of careful work and makes a strong case for this great city as significant not only for the heritage of India, for the wider world of visitors who have found this city to be a place of arresting and expansive vision". Fellow workers like Dr. George Michell,



Fig. 3 Prof. Rana P. B. Singh and Prof. Ravi S. Singh, field visit at Asi Ghat, Varanasi, 21 July 2007. *Source* Rana P. B. Singh

Prof. Hillary P. Rodrigues, Prof. Axel Michaels, Prof. Michael S. Dodson, Prof. Hisayoshi Miyamoto, (*late*) Prof. Pramod Chandra, Prof. Dilip K. Chakrabarti, Prof. Rob Linrothe, Prof. Reena Tiwari, Prof. Amita Sinha, Prof. Martin Gaenszle, (Prof.) Sir Christopher A. Bayly, Prof. Donatella Dolcini and Prof. Marc J. Katz in their endorsements of the book appreciated Rana-ji's investigative insights which brought out the value of living cultural traditions of India in daily life in Banaras. This study is an extended form of an earlier anthology (Michell and Singh 2005).

Cosmic Order and Cultural Astronomy: Sacred Cities of India (2009d) was the fourth book in the series released in the 17th SEAC Conference of European Society for Astronomy in Culture (SEAC), 25–31 October 2009, Library of Alexandria, Egypt. The introduction to the book was jointly written by Rana-ji and John McKim Malville. Rest of the chapters were authored by Rana-ji who studied Khajuraho, Gaya, Vindhyachal, Kashi (Varanasi) and its 'Shaktiscapes' and Chitrakut, where Mother Earth blesses: Naturescapes. Renowned international authorities termed it

as 'ground-breaking radically transforming our understanding of Indian ethnoastronomy and religious culture' and 'splendid work' (see the views of scholars, pp. v-ix).

Sacred Geography of Goddesses in South Asia: Essays in Memory of David R. *Kinsley* (2010) was the fifth publication of the series edited by Rana-ji containing 14 chapters dealing with goddesses and their places from an interdisciplinary perspective. These chapters are found dealing with links between ecology and shamanism, landscape and nature spirit and emphasising the web of meanings imbued in the cultural tradition of portraying landscape as a temple and territory as the archetypal representation of the cosmos. The themes covered by different authors are varied yet anchored: sacred places, spatiality and symbolism; mental journeys and cosmic topography, illustrated with Shrichakra and its Puja; pilgrimage sites in the Siwalik Region where the landscape has played a special role in awakening human mind; Pavagadh, where landscape helps to make the power of the Mother Goddess; spatial circulation in ritualscapes of the matrikas in Kathmandu Valley; scenario at the Kamakhya Pitha; sacredscape and spatial structure of be-headed goddess 'Chhinnamasta' at Rajarappa; sacred geography and formation of Vindhyachal goddess territory; Hindu Goddesses in Kashi: Spatial Patterns and Symbolic Orders; the ten Mahavidyas' Yatra in making the goddess spirit invoked; role of Durga in the present sacredscape of Varanasi; issue of images and performances related to the river goddess Ganga; and representation of Green Tara in the wall paintings of Alchi. International scholars on religious and cultural studies not only appreciated the editorial effort of bringing out a volume dedicated to (late) Prof. David Kinsley (1939-2000) but also as the 'new vision of understanding the impinging spirit of the feminine divine in South Asia' which is found generally lacking in academic discourses in the region.

The sixth book of this series was *Heritagescapes and Cultural Landscapes* (2011a) edited by Rana P. B. Singh and introduced by Prof. William Logan (UNESCO Chair of Heritage, Deakin University, Australia). It comprises 11 essays that deal with the current debate in heritage studies and planning involving theoretical constructs and case studies from different parts of the world, like Cambodia, India, Japan, Jordon, Mexico, UK and USA. A careful reading of the book reveals that on the lines of the perspectives of the UNESCO World Heritage Committee the prospective features and in-depth local structures have been portrayed with field experiences. Prof. Logan, in his foreword, remarked that the various essays in the book "promise to make a valuable contribution to the evolution of theory and practice and to protecting the world's heritage and creating a more sustainable world" (Logan in Rana 2011a: p. vii). It was termed as 'valuable' and 'timely' and also interesting from the international point of view.

In his typical untiring spirit, Rana-ji brought out the next edited volume, seventh in the series, titled *Sacredscapes and Pilgrimage Systems* (2011b) consisting of 11 chapters dealing with current discourses in pilgrimage studies and spirit of place that helps to understand the deeper relationship between human psyche and sacred environment through case studies from Canada, China, India, Israel, Nepal, Pakistan, Romania, Spain and Tibet, representing many religions. On the lines of the thought linking

locality with universality, the essays are illustrated with case studies. Such studies certainly broaden the scope of pilgrimage studies in multidisciplinary approaches to bring out path-breaking new works. Prof. Erik Cohen, Emeritus Professor of Social Anthropology, the Hebrew University of Jerusalem- Israel, in his endorsement remarked, "I was impressed by the wide range of topics and sites discussed by authors from many different countries and backgrounds. The essays are of high quality, innovative and interesting. This is a valuable addition to the growing literature on pilgrimage and will be of interest to academics, students and general readers" (ibid., p. vii).

The next publication under this series was *Holy Places and Pilgrimages: Essays on India* (2011c) brought out under the editorship of Rana-ji. In the foreword, (*late*) Prof. Robert H. Stoddard welcomed this endeavour. This anthology had ten essays that mainly dealt with contemporary debates in pilgrimage studies and spirit of place that helps to understand the deeper relationship between the human psyche and sacred environment, citing illustrations from different parts of India, like Vrindavan and Braj, Vaishno Devi, Pandharpur, Varanasi, Gaya, Buddhist places and Shirdi, representing different regional religious traditions. Appreciating the volume, Prof. Dallen J. Timothy in the endorsement said, "This collection brings together a global network of scholars who eruditely delve into the obvious manifestations and subtle nuances of the multidimensional relationships between religion and travel.... I congratulate Professor Rana P. B. Singh for putting together such an extraordinary tome of India that simultaneously raises and answers salient questions about pilgrimages in India. This volume is a 'must read' for everyone interested in sacredscapes and pilgrimage studies in India" (ibid. pp. vii–vii).

The last book, ninth in this series, was on *Hindu Tradition of Pilgrimage: Sacred Space and System* (2013), authored by Rana-ji; it consists of ten essays and an annotated list of 108 important pilgrimage places in India. It deals with 'deeper awareness and understanding of the complexities and subtleties of pilgrimage' in the contexts of the mythology, history, system, structure and functioning of Hindu pilgrimages and sacred space in India. The book is illustrated with case studies of Shaktipithas, Chitrakut, Varanasi, Gaya, Vindhyachal, Mathura, Kumbha Mela while emphasising the textual traditions, historical outline, contemporary pilgrimage tourism, issues of contestations and seduction of history, sacred geometry and cosmic order and use of Self-Organised Criticality Theory. In his endorsement of this book, Prof. Surinder M. Bhardwaj wrote:

"Energy, experience and profound knowledge of pilgrimage tourism stand out boldly in Rana P. B. Singh's ... work that at once captures the rich diversity of existing pilgrimage scholarship, which Professor Singh himself helped to fuel, over the last quarter of a century. He has done so primarily through his own prolific scholarship, as well as by personally fostering and facilitating a large and distinguished international community of pilgrimage tourism scholars. ... His abiding research on Hindu cosmology and long-term first-hand experience of contestations at sacred spaces embedded in this book, should spur fruitful interdisciplinary research. In fact, this stimulating book provides a whole storehouse of exciting ideas for both seasoned and budding scholars". (ibid. p. i)



Fig. 4 Prof. Rana P. B. Singh and Prof. Bharat Dahiya at Rana-ji's home, BHU, Varanasi, 17 July 2013. *Source* Rana P. B. Singh

This statement underlines the global recognition and appreciation for the academic efforts of Rana-ji, particularly in the field of pilgrimage studies and sacred geography. This book was termed as continuing the scholarly tradition with a set of well-researched essays on the pilgrimage systems and associated sacredscapes, illustrating variety and distinctions of cultural regions of India by (*late*) Prof. Robert H. Stoddard.

Rana-ji's latest writings (2019a, b, 2020) include various aspects of 'continuing culture and meeting modernity', 'visioning cultural heritage and planning', 'urban governance and heritage inclusive development', 'sacred-heritage city development', 'United Nations' Sustainable Development Goals (SDGs) and context of heritage

and Rana (2020a, 2020b).

cities in India', 'sacrality and waterfront spaces in India', 'faith and place: Hindu sacred landscapes of India', 'intangible dimensions of urban heritage', 'appraising Sacrosanct Environment in India, 'sacrality, nature and interfacing religious tourism', 'contemporary perspectives of Hindu pilgrimage in India: the experiential exposition'; 'developmental thoughts of Gandhi, and Vivekananda' (Singh 2011d, 2019b, 2019c)—all these are narrated in theoretical frameworks and illustrated with case studies of Varanasi, Ayodhya and Shirakawa-go (Japan). Many papers in this period are jointly published with his associates, viz. Singh and Rana (2019d, 2020a, 2020b), Singh, Rana and Olsen (2022a); Kumar and Singh (2013, 2015a, 2015b, 2016a, 2016b, 2017a, 2017b, 2017c, 2019); Singh and Kumar (2020, 2022c); Singh, Kumar,

In 2021, Rana-ji published eight papers which covered themes like heritagescapes of the Ganga River (Singh 2021a); place-based ecoliteracy (Singh 2021b); ecospirituality and sustainability, and environmental ethics (Singh 2021c, 2021d); contemporary perspectives of Hindu pilgrimage, and cultural diplomacy in India (Singh and Rana 2021a, 2021b); and Hinduism, heritagization and holy cities, and sacred water-pools and Hindu ritualscapes (Singh, Rana, and Kumar 2021a, 2021b). Continuing his academic journey, what he metaphorically calls 'co-pilgrimage', Rana-ji has continued his recent march (2022); he extended the application of multidisciplinary approaches to study cultural landscapes, sacredscapes, and heritage landscapes to understand the spirit of place-from wholeness to holiness. This march covers studies and interpretation of Panchakroshi pilgrimage (Singh 2002, Singh and Kumar 2022a); sacrosanct environment of the holy-heritage city of Ayodhya, illustrated with variety of its ritualscapes (Singh and Kumar 2022b) that has been further explained with the niches and processes of placemaking and transformation of historic landscapes (Singh and Kumar 2022c); critical appraisal of historic cities and interrelated cultural-religious heritage (Singh and Niglio 2022a), and examining emerging interfaces among placemaking and cultural landscapes (Singh and Niglio 2022b); the construction, destruction, and resurrection to heritagisation with example of Vishvanatha temple in Varanasi (Singh and Rana 2022a); the role of Hindu pilgrimage functionaries in making and regulating the pilgrimage system (Singh and Rana 2022b); the interaction among sacrality, environment and Hindu religion (Singh, Rana and Olsen 2022a); and role of Pung-su in placemaking and evolution of cultural landscapes in Korea, illustrated with a case study of Hahoe village (Kim and Singh 2022). During the course of his research and publication journey covering over 48 years, starting from his first research paper in 1974 till today, Rana-ji's publications include altogether 338 research papers (including 145 published out of India), 18 research monographs and 26 edited/co-edited anthologies, 267 book reviews and several other items obituaries, textbooks and guidebooks, etc. (see Table 1).

Publications	National (India)	International (Outside India)	Total
A-2. Edited/ co-edited vols	19	7	26
A-3. Co-Ed. Catalogue/directory	1	1	2
A-4. Textbooks (co-authored)	2	-	2
A-5. Guidebooks (Banaras region)	2	-	2
A-6. Journals edited (spec. issue)	2	1	3
A-7. Co-editor, World Directory of Geography, 1992/1993	-	1	1
B. Research papers (<i>English</i> , incl. 3 <i>Italian</i> , 1 <i>Chinese</i> , 2 <i>Spanish</i>)	193	145	338
C. Electronic publications	-	28	28
D. Reports (Varanasi: heritage zones)	3	-	3
E. Conference reporting	1	-	1
F. Obituaries	31	5	36
G. Book reviews	264	3	267
H. Papers in <i>Hindi</i> (selected only)	19	-	19

Table 1 List of Prof. Rana P. B. Singh's publications, 1974-2022

Source Compiled by Authors

Note For details see: https://www.academia.edu/69938799/_R022_Singh_Rana_P_B_2022_The_Sacred_Cosmos_Legacy_Perspectives_and_Pathways_of_Lifeworld_Autobiographical_Reflect ions_1_101pp_Varanasi_ACLA_Web_Publication (updated 1 February 2022). "https://www.academia.edu/41275813/R002_Singh_Rana_P.B_2020_The_Sacred_Cosmos"

4 Professional Contributions

As an active academic, Rana-ji has organised seminars as Secretary/Panel Convenor/Panel Chair/Co-Convener of 32 events; of these, 14 were organised abroad and the rest 18 were in India. He served as Course Coordinator to India's University Grants Commission (UGC) Refresher Course for geography teachers from universities and colleges at Academic Staff College (now, Human Resource Development Centre, HRDC) on 'Geography and Environmental Concern in the Twenty-First Century' (11–31 December 2001) and 'Geography in the Twenty-First Century: An Interdisciplinary Approach' (26 November to 16 December 2005). He has been a resource person to the UGC Refresher Course at Academic Staff Colleges (now, known as 'Human Resource Development Centres') and as Visiting Fellow delivered 85 lectures during 1985–2019 at Aligarh, New Delhi, Gorakhpur, Shantiniketan, Tirupati, Chennai, Patna, Hyderabad, Udaipur, Jaipur, Pune, Mumbai, Bhubaneshwar, Kolkata, School of Planning and Architecture—Bhopal, Amravathi, Puducherry and B.H.U. Varanasi, on various aspects of cultural landscapes and heritage and sacred geometry of holy-heritage places.

Rana-ji has served as a peer reviewer to over a dozen of international journals, viz., 'Annals Association of American Geographers' (Taylor & Francis, London & New York), 'International Journal of Global Ethics' (Taylor & Francis, London), 'Tourism—an International Interdisciplinary Journal' (Zagreb, Croatia), 'International Journal of Tourism Anthropology' (a quarterly from Interscience Ent. Ltd. U.K.), 'International Journal of Urban Sciences' (Taylor & Francis, London), 'International Journal of Religious Tourism & Pilgrimage' (Dublin Ins. Te., Ireland), 'Human Geographies—Journal of Studies and Research in Human Geography' (University of Bucharest, Romania), 'Journal of Cultural Geography' (Taylor and Francis, USA), 'GeoJournal' (Springer Nature), 'South Asian Affairs' (Gifu, Japan), 'National Geographical Journal of India' (B.H.U. Varanasi), 'Landscape Research' (Taylor & Francis, London) and 'Space and Culture, India'—a journal published from the United Kingdom.

Since 2000 on behalf of the National Committee for Geography under INSA (Indian National Science Academy, Government of India) Rana-ji has been involved in preparing 4-yearly reports of progress, trends and perspectives of 'Cultural Geography in India', which get released on the inaugural ceremony of the IGU (International Geographical Union) World Congresses. The first of the report was in two parts, Cultural Geography and Historical Geography (2000–2004), appraised and written together with his associate collaborator Ravi S. Singh and released in the 30th IGU World Geography Congress in Glasgow, UK (15-20 August 2004). This was followed up in the successive period, 2004–2008 and released in 31st IGU World Geography Congress in Tunis, Tunisia (12-15 August 2008). However, in the successive period, Cultural Geography and Historical Geography merged into one under 'Cultural Geography' and the appraisal report was prepared independently by Ranaji for the period 2008–2012 (released in the 32nd IGU World Congress, Cologne, Germany, 26–30 August 2012) and for the period, 2012–2016 (released in the 33rd IGU World Congress, Beijing, China, 21–25 August 2016) (see Singh 2016). On this line, the latest one, 2016–2020, is in process and scheduled to be released at the 34th IGU World Congress (Istanbul, Turkey: 17-21 August 2021).

4.1 Lectures/Seminars Given Abroad as Visiting Scholar/Professor/Keynote Speaker

Rana-ji has collaborated on international projects of the United Nations' Centre of Housing, Building and Planning, New York (1977) and a short-term project on 'Rural Development in Indian Environment', Japan Foundation, Tokyo (at Geography Department, Okayama University) on 'Changing Japanese and Indian Rural Habitat', August-December 1980 (with Prof. Shogo Yuihama); United Kingdom Department for International Development (DFID) funded project 'Crop Post Harvest Research Programme'; Centre for Environmental Technology, Imperial College (University of London) at Selwood Park, on 'Air Pollution, Land use and Vegetable Farming in

Peri-urban areas around Varanasi City', May–October 1999 and April 2000–March 2003; University of Colorado, Boulder (USA) and Society of Heritage Planning & Environmental Health (S.H.P.E.H.) on 'Cultural Astronomy and Pilgrimage Systems: The Bathers' Survey, Varanasi', November 1998–June 2000; with Prof. John McKim Malville; Karlstad University, Sweden on 'Comparison of Life-world and Farming Systems in Sweden and India: Östmark (Sweden) and Chamaon (Varanasi, India), a comparative study', 1995–2000, with Prof. Gerhard Gustafsson; German Research Council: SAI, Univ. of Heidelberg, Interdisciplinary Project on 'Visualised Space—Constructions of Locality and Cartographic Representation in Varanasi', 1999–2002, with Prof. Axel Michaels and Prof. Niels Gutschow.

Rana-ji has been honoured to deliver the keynote addresses in other disciplines, in recognition of his insightful contributions in the field of cultural landscapes, sacred landscapes and cultural heritage. In fact, he is the only and exceptional and distinct geographer from Asia who was honoured in other disciplines. He has delivered keynote address and also presented two papers in the IFLA (International Federation of Landscape Architects): Asia Pacific Region International Symposium on "Sustainable Rural Landscape & Planning in Asia Pacific Region" at Seoul National University, Seoul, Korea: 5 ~ 8 December 2011; where he compared the cultural roots of and their interconnectedness among the east, south-east and south Asian cultures. With his initiation and collaboration, a new institution of ACLA (Asian Cultural Landscape Association) was formed in the above meeting and he was unanimously nominated as its Vice-President that he continued till 2017 and since 2018 serving as its President. He, the only such geographer, has delivered keynote address at the 50th World Congress of IFLA (International Federation of Landscape Architects), focussing on "Shared Wisdom in an Age of Change-Overview": 9-12 April 2013, Auckland, NZ; his address was entitled "Sacred Landscapes, Cosmos and Shared Wisdom: The Asian Vision" and was published at their website. As a special expert invitee, he addressed the UNESCO-ICOMOS (Korea) International Conference on "Toward Understanding the Outstanding Universal Value of Religious Heritage": 22-24 April 2015, organised by Jogye Order of Korean Buddhism at Magoksa temple in Gongju city, near Seoul, Korea; where he delivered his address on "Heritage Value of Religious Sites and Built Archetypes: The Scenario of Hinduism and illustration from Banaras" that was published in the proceedings in Korean together with English.

4.2 Research Supervision & Examination

Eighteen students successfully completed their doctoral research work under Rana-ji among them two were foreign students, one each from Nepal and Iran; most of them covered the theme of cultural geography in broad perspectives and except the first one the rest submitted at Banaras Hindu University (see Table 2).

Rana-ji has been external examiner of Ph.D. dissertations submitted at many universities in India; some notable universities among them are: University of

Research scholar	Topic of the research	Awarded
1. Muneshwar Singh	Spatial patterns of rural settlements in Saran district [submitted to the University of Bihar, Muzaffarpur]	Dec. 1988
2. Ramesh P. Shahi	Social geography of Deoria town	Nov. 1991
3. Shanti K. Prasad	Solid waste management in Delhi	Dec. 1991
4. Jamal Akhtar	Muslims in Varanasi city: a study in cultural geography	Dec. 1992
5. Padma C. Poudel [from Nepal]	Tourist resources & environmental appraisal in Pokhara valley, Nepal	Nov. 1996
6. Shyam Pyare Singh (<i>late</i>)	Sacred and cultural landscape of Mirzapur (U.P.): a geographical analysis [in <i>Hindi</i>]	Dec. 2002
7. Suryakant Bhartiya	Integrated rural development of Sakaldiha block (district—Chandauli) [in <i>Hindi</i>]	Dec. 2002
8. Dashrath	Urban settlements of Sant Ravidas Nagar Bhadohi district: a geographical study [in <i>Hindi</i>]	Dec. 2002
9. Neelam Pal	Recent population changes and development strategies in Varanasi city: a geographical study	Feb. 2011, pub. 2015
10. Ram Kumar Chaturvedi	Evolution and morphology of towns in the Ganga-Ghaghara Doab [in <i>Hindi</i>]	Aug. 2011

 Table 2
 Doctoral Dissertations supervised by Rana P. B. Singh

(continued)

Delhi, Jawaharlal Nehru University (JNU) New Delhi, University of Allahabad, Govind Ballabh Pant Institute—Allahabad, Aligarh Muslim University—Aligarh, HNB Garhwal University—Srinagar, University of Calcutta—Kolkata, University of Rajasthan—Jaipur, Maharshi Dayanand University—Rohtak, MSM University—Kanpur, RML University—Faizabad, Utkal University—Bhubaneshwar, Veer Bahadur Singh Purvanchal University—Jaunpur, Shivaji University—Kolhapur, Gohati University—Guwahati, Burdwan University, Lovely Professional University—Phagwara, University of Bombay—Mumbai and Jamia Millia Islamia—New Delhi.

Research scholar	Topic of the research	Awarded
11. Pankaj Prakash Singh	Rural–urban change in Harahua block, Varanasi: a geographical study	Jan. 2012
12. Geeta Yadav (late)	Population change and spatial pattern in Azamgarh district: a geographical analysis	Aug. 2012
13. Devesh Kumar	The Buddhist heritage sites: a geographical analysis of sacred landscapes	June 2013
14. Tahereh Navaei Feizabadi [from Iran]	Problems and prospects of urban governance and planning in Varanasi	Mar. 2016
15. Jitendra Kumar Singh	Social, economic and spatial changes among the tribes of Sonabhadra district (U.P.): a geographical study [in <i>Hindi</i>]	Dec. 2017
16. Sarvesh Kumar	Cultural landscapes and heritage of Ayodhya-Faizabad: a study in cultural geography	April 2018
17. Pintu Kumar	Socio-economic characteristics of scheduled castes in Bodhgaya block, Bihar: a geographical analysis	Aug. 2018
18. Brijesh Kumar	Socio-economic characteristics of scheduled castes in Barabanki district: a geographical analysis	Oct. 2018

 Table 2 (continued)

Source Compiled by Authors

5 Academic Recognitions, Honour and Awards

Rana-ji's first visit abroad was his participation and presentation of papers in the 23rd IGU World Geography Congress at Tashkent and Moscow, USSR (Russia) during July–August 1976, where he was nominated as Secretary to the IGU Commission on 'Transformation of Rural Habitat'. This was followed by his assignment as a Japan Foundation Scientist at the Department of Geography, Okayama National University, Okayama, where he spent five months during August-December 1980. The very next year, he was appointed Visiting Professor in Geography and Urban and Environmental Systems at Virginia Tech (VPI-SU), Blacksburg, VA, USA, where he worked for four months (during January–April 1981) and had to come back due to some important family matters. Under the Academic Exchange Programme between Karlstad University (Sweden) and Banaras Hindu University (India), he was a Visiting Professor for many terms (December 1989, May–June 1993, August

1996, May–June 2005, May–June 2006). He had the honour of being Linnaeus-Palme Visiting Professor at University of Karlstad, Sweden, under the Exchange Programme in May 2002. In the 50th anniversary year of the Department of Geography, University of Otago, Dunedin, New Zealand, he was Ron Lister Lecturer in October 1995. He was awarded the Indo-Japanese Exchange Visiting Professorship at Gifu Women's University, Japan, to promote collaborative heritage studies between Gifu and Varanasi during 8-18 December 2004. In recognition of his contribution to building Indo-Swedish academic relationships, he was awarded a Visiting Professorship at the Department of Religious Studies & Theology of University of Gothenburg (Sweden) to promote interdisciplinary and collaborative programmes in October 2008 and October 2011. He visited Japan again under the Indo-Japanese Exchange, at Research Center for Kyosei Philosophy, Toyo University, Tokyo; and collaborated with Prof. Hashimoto Taigen, Head, Department of Indian Philosophy as Visiting Professor during 15-23 December 2010. During 2011-2020, Rana-ji was a collaborative partner with (late) Prof. Sung-Kyun Kim (1956-2020), a distinguished professor of landscape architecture at Seoul National University, Korea, under the aegis of ACLA, Asian Cultural Landscape Association, and promoted Indo-Korean comparative studies, partially sponsored by the Korean government. Also, since 2020 he has been collaborating with a well-known scholar of architectural history and restoration, Prof. Olimpia Niglio (University of Pavia, Italy), on the comparative studies of India and European culture and heritage.

Besides the international academic recognition, he has also contributed as a professional in India and abroad. Some of the notable professional roles played by him are: Expert Advisor (Varanasi), World Bank-Ministry of Urban Development (GOI): Inclusive Heritage-based City Development Programme (2012–2014); Member, Technical Advisory Committee on "Eco & WaSH" (Water, Sanitation and Hygiene) Futures, Ministry of Science and Technology, Department of Science and Technology (Government of India, 2011–2014); Expert Member, 'Heritage Cell', Varanasi Municipal Corporation, Varanasi, UP, India (2012-2014); Vice-President and Chief Editor, Asian Cultural Landscape Association, ACLA (Seoul National University, Seoul, Korea, 2013–2017); President, ACLA (2018–2022); Honorary Secretary, National Geographical Society of India (BHU Varanasi, India, 2013-2016); President, Indian Association of Study of Religion (IASR), an affiliate of IAHR—a body of UNESCO (2014–2016). He is also serving as President (Asia), Reconnecting with Your Culture (a member of CHARTER European Union), 2021-2024; and Member, International Scientific Committee, EdA Esempi di Architettura (Rome, Italy), 2020-2024.

Rana-ji is the recipient of 'Ganga Ratna', the National Award for life-long works and publications on the city of Kashi (Varanasi), the River Ganga and their landscapes by the Ganga Mahasabha on its 100th anniversary, 05 November 2014, presented together by Sushri Uma Bharati—Honourable Minister of Water Resources and the Ganga Rejuvenation (Government of India), Justice Mr. Girdhar Malaviya— President of the Ganga Mahasabha and Swami Basudevananda—Shankaracharya of Jyotirpith of Badrikashram and coronated by Swami Jitendranand Sarasvati. On 23 October 2018, he was awarded 'Koshal Ratna', a National Award for his works on Ayodhya-Varanasi region in the 7th ACLA International Symposium at Dr. Rammanohar Lohia Avadh University, Ayodhya (India).

Rana-ji has a long experience with International Geographical Union (IGU), United Nations and other international bodies in different capacities. He has been the Series Editor: Planet Earth & Cultural Understanding under which he published nine volumes during 2009–2013 (as mentioned earlier). He was the founder president of Banaras Study Foundation to which he contributed as an activist and author of ten books and 142 research papers and essays on Banaras. He was Secretary of IGU Working Group, Transformation of Rural Habitat in Developing Countries (1976–1984); and Corresponding Member of IGU Commission on Population Geography (1976–1996), IGU Commission on Rural Systems (1976–1992), IGU Commission on History of Geographical Thought (1988–2004), IGU Study Group on Geography of Commercial Activities (1984–1992), IGU Commission on Cultural Geography (1996–2008), IGU Working Group on Land Use/Land Cover Changes (1996–2004), and IGU Commission on Cultural Geography (1996–2008).

He was a Consultant to the United Nations' Center of Housing, Building and Planning (New York, USA) during 1977–1980 and a Member of the Study Group on Geography of Religions and Belief Systems, Association of American Geographers, USA (1989-2010). He has been Member, Executive Board: The International Research Forum on South Asian Association for Regional Cooperation (SAARC) based in Tokyo since August 2003; Member, European Association of South Asian Studies (IIAS- International Institute of Asian Studies, Leiden, the Netherlands) during 2006–2008; Member, A.A. Istituzione del Comitato Scientifico (Milan Italy), 2010–2015; Member, South Asia, IGU Initiative: Cultures and Civilizations for Human Development, 2005–2012; Member, UNESCO 'Network of Indian Cities of Living Heritage' (representing Varanasi), 2004–2006; Founding President of Society of Heritage Planning and Environmental Health (SHPEH, Varanasi) and Society of Pilgrimage Studies (SPS); Indo-Nordic Cultural Association, INCA; Founding President: Indo-Japanese Cultural Association, Banaras; Founding Vice-President: ACLA during 2011-2017 and serving as President for the period since 2018–2022; Founding Vice-President: Big History Association of India, BHAIan affiliate of IBHA-International Big History Association (USA) since 2016; President: Indian Association of Study of Religion (IASR), an affiliate of IAHR (International Association of History of Religion) during 2014–2016. Besides the above honours and recognitions, he is General Member: International Union for Conservation of Nature (IUCN) Specialist Group on 'Cultural & Spiritual Values of Protected Areas' (2017-continue); Expert Member and Voting Member (India): International Council on Monuments and Sites (ICOMOS)---IFLA International Scientific Committee on 'Places of Religion and Ritual' (PRERICO, Seoul, 2018-); Expert Advisor (Varanasi): World Bank-Ministry of Urban Development, Government of India: Inclusive Heritage-based City Development Programme, 2013-14; Member, Steering Committee, I.G.U. Commission C16.07 Cultural Approach in Geography, 2012-2020, and 2020-2024; Member, Steering Committee, I.G.U. Commission C16.25 Landscape Analysis and Landscape Planning, 2012–2020.

Since 2018 he is also serving as Expert and Voting Member of the ICOMOS, International Council of Monuments and Sites,-IFLA, International Federation of Landscape Architecture, joint International Scientific Committee on 'Places of Religions and Ritual' ('PRERICO'); as Contributing Member of the IFLA International Scientific Committee on 'Cultural Landscapes'; as Chief Coordinator ICOMOS National Scientific Committee (India) on 'Cultural Landscapes'; and Member, ICOMOS India National Scientific Committee-Cultural Routes (ISCCR); Member, Indo-Hellenic Society for Culture and Development, 'ELINEPA', Athens, Greece (since 2015-) ; Member, Scientific Committee-International Experts for Research Enrichment and Knowledge Exchange, Alexandria, Egypt, since May 2016; Member, Advisory Board: the 'BHUMI 'Project [Green Pilgrimage Network—OCHS, Oxford Centre of Hindu Studies], Oxford since 2013, Member, Advisory Board: Advances in twentyfirst Century Human Settlements (ISSN: 2198-2546, a Springer Nature series, Singapore); Member, International Board of Editors; International Journal of Tourism Anthropology (ISSN online: 1759-0450, ISSN print: 1759-0442, Interscience Ent. Ltd. U.K.) during 2011-2015; Member, International Editorial Board: Human Geographies (ISSN: 2067-2284), Faculty of Geography, University of Bucharest Romania, since 2010; Member, Editorial Board of the International Journal of Religious Tourism and Pilgrimage (Technological University Dublin, Ireland, ISSN: 2009-7379) since 2013; Member, Editorial Board: Sthapatyam, Journal of Indian Architecture and Art (ISSN: 2349-2368) since 2013; Member, Editorial Board: Journal of Cultural Geography (ISSN: 1940-6320, Taylor and Francis, USA); and Member, Editorial Board: American Journal of Indic Studies (ISSN: 2471-8947, AAIS—American Association of Indic Studies, TX USA).

Rana-ji is a Life Member of the Indian National Trust for Art and Cultural Heritage (INTACH), National Association of Geographers, India (NAGI), National Geographical Society of India (NGSI) and ICOMOS, India. He is a recipient of many international fellowships and awards like F.J.F., Fellow, Japan Foundation (affiliation at Okayama University, Japan), 1980; F.A.A.I., Academic Fellow: Accademia Ambrosiana (Milano, Italy), since January 2009 which was presented in a ceremonial seminar on 31 October 2009; F.I.F.S, Fellow, International Foundation for SAARC (Gifu Women's University, Japan), 2004; F.A.C.L.A., Fellow of Asian Cultural Landscape Association, SNU Seoul conferred on 12 October 2013; and Member, A.A. Istituzione del Comitato Scientifico (Milano, Italy), 2010–12, II-term 2013–2015.

To promote the cause of Varanasi studies, he has had an active involvement with many academic programmes in different capacities. A few roles worthy of mentioning among them are Chief Coordinator (Hon.): New York State Independent College Consortium for Study in India (Program at Varanasi (1994–2012); and Global College/Friends World Program, Long Island University, Southampton, NY, GC-LIU (2001–2013); President: Indo-Japanese Cultural Association (Varanasi) since 1984; Indo-Nordic Cultural Association (Varanasi) since 1992; Indo-Israel Cultural Association (Varanasi) since 2002; Indo-Austria Cultural Association (Varanasi) since 2004; Indo-Italiano Cultural Association (Varanasi) since 2004; and Indo-Korean Cultural Association (Varanasi) since 2014. He is a Chief Advisor of the Indian National Trust for Art, Culture and Heritage—Varanasi chapter since May 2003.

Rana-Ji has been very active in collaborating, discoursing and presentation of seminars in India and abroad; during 1975–2021 he has attended 190 seminars in India and 71 out of India (see Table 3)—the counties included are: Australia, Austria, Belgium, China, Denmark, Finland, Germany, Indonesia, Italy, Japan, Korea, Malaysia, Nepal, Netherlands, New Zealand, Norway, Philippines, Russia (USSR), Singapore, Spain and Sweden (see Table 4).

Year	National (in India)	International (in India)	Total (held in India)	International (outside India)	Total
1975–1985	4	4	8	4	12
1986–1995	8	5	13	6	19
1996–2000	5	5	10	6	16
2001	1	2	3	2	5
2002	-	-	2	1	3
2003	3	2	5	2	7
2004	3	2	5	3	8
2005	1	3	4	3	7
2006	1	3	4	3	7
2007	5	4	9	1	10
2008	3	3	6	2	8
2009	6	4	10	3	13
2010	6	6	12	4	16
2011	5	4	9	5	14
2012	11	6	17	4	21
2013	4	1	5	3	8
2014	2	1	6	3	9
2015	11	3	9	7	16
2016	3	2	5	3	8
2017	7	4	11	3	13
2018	11	4	15	-	15
2019	5	3	8	3	11
Total	105	78	183	71	254

 Table 3
 Paper presentation, keynote address in India and abroad, 1975–2021

Source Compiled by Authors

No.	Country	Place(s) with year	No. of visits
1	Australia	Perth, Melbourne, Torok, 1995; Perth, Melbourne, Sydney, 2001	2
2	Austria	Vienna, Semmering, July 2004	1
3	Belgium	Brussels, Antwerpen, 1993	1
4	People's Republic of China	Kunming: 26 July to 2 Aug. 2009; BNU Beijing: 4–7 December 2013; Yunnan Normal University, Kunming and Jing Hong: 20–24 July 2014; CGS Beijing: 20–26 August 2016	4
5	Denmark	Copenhagen, Aarhus; 1993, 2001, 2003, 2005, 2006, 2008	6
6	Finland	Turku, Vaasa; 1996, 1999	2
7	Germany	Göttingen, Bonn, Bochum, Regensburg, Heidelberg, Meinheim, Berlin, Potsdam; 1993, 2002, 21–25 Oct. 2012	3
8	Indonesia	Udayana University, Denpasar-Bali: 10~14 Sept. 2015	1
9	Italy	Milan, Verona, Bologna, Venice, Florence, Rome, 2003; Oct-Nov 2009, Milan, Verona; 16–24 Oct. 2010, Acd. Ambr. and State Univ. Milan—16–20 Oct. 2012, Acad. Ambr. Milan; 25–28 Oct. 2012 Lecce	5
10	Japan	Okayama, Hiroshima, Nagoya, Osaka, Tokyo, Kyoto: 09 Aug. to 10 Dec. 1980; Gifu, Shirakawa-go, Takayama, Tokyo, 8–18 Dec. 2004; The 19th World Congress, IAHR, Tokyo: 23–31 March 2005; Toyo University, Tokyo: 15–23 Dec. 2010; LRDE Hosei University: 03~06 October 2014	5
11	Republic of Korea	SNU Seoul: 4–10 Dec. 2011; SNU Seoul 11–16 Oct. 2013; Seoul 22–25 Apr. 2015; SNU Seoul 22~25 Nov. 2015; SNU Seoul and Gimhae: 16~21 Oct. 2016; SNU Seoul and Gimhae: 16~21 Nov. 2017; SNU Seoul and Gimhae: 17~22 Feb. 2019; SNU—Asia Center Seoul: 18~22 Nov. 2019	8
12	Malaysia	8th ACLA Symposium: 9~10 Oct. 2019, U.T.M. Johor	1

 Table 4
 Lectures/seminars given abroad as visiting scholar/professor/keynote speaker

(continued)

No.	Country	Place(s) with year	No. of visits
13	Nepal	Kathmandu, 1981, 1990	2
14	The Netherlands	Eindhoven, Groningen, Utrecht, Leiden, The Hague; 1993, 1996, 1999,	4
15	New Zealand	Dunedin, Christchurch, Palmerston North, 1995; Auckland, April 2013	2
16	Norway	Bergen, Oslo, Trondheim, Aug. 1996, 2006, 2008, Oct. 2011	4
17	Philippines	Manila; 22~27 Jan. 2008	1
18	Russian Federation (erstwhile USSR)	Tashkent, Moscow: 20 July–02 August 1976; Vladivostok: 15–21, and 22–24 July 2017	3
19	Singapore	Singapore: 1995, 2003	2
20	Spain	Madrid, La Laguna (Tenerife): 24–29 June 1999; Santiago de Compostela: 12–15 Oct. 2010	2
21	Sweden	Karlstad, Göteborg, Lund, Uppsala, Sida-Sändo, Stockholm, Falun; 1989, 1993, 1996, 1997, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, Oct. 2008, Oct. 2011	14
22	Switzerland	Bern, Lausanne; 1993	1
23	Thailand	Bangkok, May 2007; Bangkok, 26 June–03 July 2015; Lampang, 01–06 December 2016; Bangkok-Ajodhya: 11–12 Oct. 2019	4
24	United States of America	Honolulu (Hawaii), Blacksburg (Virginia Tech), Washington DC, Amherst, Worcester: 11 December 1980–10 April 1981; U-Illinois-Champaign: 05–11 Oct. 2015	2
_	Total visits		79

Table 4 (continued)

Source Compiled by Authors

6 Summing Up

A voracious reader with an untiring spirit, Rana-ji has kept himself busy in preparing a forthcoming omnibus work on *Kashi and Cosmos: Ritualscapes and Sacred Geography of Banaras.* This book is the re-written and updated version of all the papers published/unpublished/presented by the author since 1980 onwards; with the aim of integrating themes into the sequence and the subject matter, along with several new chapters. This encyclopaedic book on Varanasi will include the introduction of Banaras and its images; geographical personality; transformation on the cradle of time (evolution); the Ghats, the riverfront heritagescapes; sacred geometry & cosmic order (pilgrimage mandala and cultural astronomy); sacred journeys and associated deities; Panchakroshi Yatra: cosmic circuit and journey; sacred geography of goddesses; Sun shrines and the sacredscapes; the Festivals and ritualscapes; the visualised image: sacrality and perceptual world; literary images: change and continuity; modern Varanasi. Place and society in Shivprasad Singh's 'Street Turns Yonder'; demographic profile and James Prinsep's Census; the Buddhist sacredscape (Sarnath); heritage tourism: scenario and perspectives; the Muslim sacredscape; and, Kashi (Varanasi): selected bibliography (ca 1500 sources) with a big list of appendices containing important information about Varanasi.

Musings and marching on the path of practising geography, Rana-ji has passed 48 years of journey after receiving his Ph.D. degree in 1974. He met Prof. Anne Buttimer (1938–2017) in 1980 in the 24th IGU World Geography Congress in 1980 at Tokyo, whose inspiration and ideologies have been accepted as a guideline for his onward journey "to look into the scenario of geography in India, particularly the roots and their reflections on the passage of time. Time passed and after a decade Buttimer was kind enough to invite him to contribute on Indian roots in her volume on 'Nature and Identity in Cross-cultural Perspectives' (1992, 1999)". During the last 35 years he has constantly been in touch with her and took her guidance and always remembered her blissful warning "to understand Indian roots in the milieu of its own history, culture and civilisation with a view to projecting its 'inherent spirit' in the service to humanity at large" (Singh 2009a: 14). He felt that "creativity" is the axis mundi of geohistory; he narrated his vision and practice as: "Understating and awakening are the ways of creativity. Creativity is not a trial or learning, it is [an] inner quest from the eternal flow where no way exists any sort of ego. A proverb says, 'understanding geography is 'yoga'—a meditation on place'. [Are] we ready? Let our life be transformed with that 'meditation'!" (ibid.: 55).

Let us stop at a destination of co-pilgrimage on the academic path together with Rana-ji, remembering his visionary poem (Singh 1995:191):

Path running towards beyond the boundary, Out of space, out of time and image. Let's cross sky-shape blue territory, Searching what lies across the mirage. Ultimately reaching to wholeness of cosmic limit, Where God and Human formed a unit.

* For details of his works, highlights and citation, see: https://www.academia.edu/ 69938799/_R022_Singh_Rana_P_B_2022_The_Sacred_Cosmos_Legacy_Perspe ctives_and_Pathways_of_Lifeworld_Autobiographical_Reflections_1_101pp_Var anasi_ACLA_Web_Publication (updated 1 February 2022).

References

- Haigh MJ (2009) 'Foreword'. In: Singh RPB (ed) Geographical thoughts in India: snapshots and vision for the 21st century. Planet earth & cultural understanding series. Cambridge Scholars Publishing, Newcastle upon Tyne UK, pp 1–8
- Kim SK, Singh RPB (2022) Pung-su: evolving cultural landscapes and placemaking in korea. In: Singh RPB, Niglio O (eds) Placemaking and Cultural Landscapes. Springer Nature Pte Ltd, Singapore
- Kumar S, Singh RPB (2013) Waterfront cultural landscape of Ayodhya (India), an ancient sacred abode of Gods. South Asian Affairs (Gifu, Japan) 9:6–17
- Kumar S, Singh RPB (2015a) Cultural-heritage tourism in Ayodhya-Faizabad: scenario and prospects. Geographer (AMU Aligarh) 62(2):66–74
- Kumar S, Singh RPB (2015b) Interfaces of Hindu pilgrimage routes and agricultural landscape: a study of Ayodhya (India). In: Kohdrata N (ed) Proceedings, 4th ACLA international symposium on agricultural landscape of Asia: learning, preserving, and redefining: 11–13 Sept 2015, Udayana University, Denpasar, Bali, Indonesia, pp 38–49
- Kumar S, Singh RPB (2016a) Ayodhya, the holy city of India: riverfront and a place of Indo-Korean interfacing symbolic landscapes. Sthapatyam, Indian J Archit Art 3(6):101–116
- Kumar, Sarvesh and Singh RPB (2016b) Ritual landscapes of Ayodhya (India) in the context of multicultural religious belongingness. In: Tajai S (ed) Proceedings, the 5th ACLA international symposium on 'sacred sites, cultural landscapes, and harmonizing the world of Asia': 2–5 Dec. 2016; Lampang Rajabhat University, Lampang, pp 174–183
- Kumar S, Singh RPB (2017a) Ayodhya, India: cultural landscape and perspectives for inclusive heritage development. Context: built, living and natural (DRONA, Gurgaon, India), vol XIII (special issue on 'Cultural Landscapes'), pp 21–30
- Kumar S, Singh RPB (2017b) Rationales for inscribing "the heritage sites, riverfront and pilgrimages routes of Ayodhya" in the UNESCO World heritage list (CA). Sthapatyam, Indian J Archit Art 3(9):51–78
- Kumar S, Singh RPB (2017c) Muslim cultural landscapes of Ayodhya-Faizabad (India): a geographical scenario. Geographer (AMU Aligarh) 64(2):95–109
- Kumar S, Singh RPB (2019) Ayodhya: a study of urban governance and heritage inclusive development. In: Sharma VR, Chandrakanta (eds.) Making cities resilient. Springer International Publisher AG, Dordrecht and New York, pp 317–338
- Lata P, Singh RPB (1991) Sarnath. Cultural heritage, museum, tourism. Tara Book Agency, Varanasi Michell G, Singh RPB (eds) (2005) Banaras: the city revealed. Marg Publs, Mumbai
- Sauer CO (1963) In: Leighly J(ed) Land and life. University of California Press, Berkeley and Los Angeles
- Singh RL, Singh RPB (1977) Rural development in Indian environment. A case of Chamaon Gram Sabha. NGSI, Varanasi, Pub. 27
- Singh RL, Singh RPB (1978) Spatial planning. An approach towards theory and its application. NGSI, Varanasi, Pub. 28
- Singh RL, Singh RPB (eds) (1979) Place of small towns in India. NGSI, Varanasi, Pub.21
- Singh RL, Singh RPB (eds) (1980) Rural habitat transformation in world frontiers. NGSI, Varanasi, Pub. 30
- Singh RPB (1974) Pattern analysis of rural settlement distribution and their types in the Saran plain. Natl Geogr J India (NGSI, Varanasi) 20(2):109–127; Reprinted in: Readings in rural settlement geography, eds. Singh et al (N.G.S.I., Varanasi, Pub. 14), 1975, pp 26–40
- Singh RPB (1977) Clan settlements in the Saran plain. A study in cultural geography. National Geographical Society of India, NGSI, Varanasi, Publ. 18
- Singh RPB (1980) In: Pieper J (ed) Socio-cultural space of Varanasi. Ritual space in India (Art & archaeology research papers, sp. vol, ISSN: 0308-5597), vol 17. AARP, London, pp 41–46
- Singh RPB (1989) Where cultural symbols meet. Literary images of Varanasi. Tara Book Agency, Varanasi

- Singh RPB (1992) Nature and cosmic integrity: a search in Hindu geographical thought. GeoJournal (Dordrecht, Holland), 26(2):139–147. Reprinted in, Buttimer A, Wallin L (eds) (1999) Nature and identity in cross-cultural perspective. Kluwer Academic Publishers, Dordrecht (Netherlands), pp 69–86
- Singh RPB (June 1995) Heritage ecology and caring for the Earth: a search for preserving the ethical values. Natl Geogr J India 41(2):191–219
- Singh RPB (2002) Towards the pilgrimage archetype. Panchakroshi Yatra of Banaras. Pilgrimage & cosmology series: 3, 2nd edn, 2011. Indica Books, Varanasi
- Singh RPB (2003) Where the Buddha walked. A companion to the Buddhist places in India. Pilgrimage & cosmology series: 5. Indica Books, Varanasi
- Singh RPB (2004) Cultural landscapes and the lifeworld. The literary images of Banaras. Pilgrimage and Cosmology Series: 6. Indica Books, Varanasi
- Singh RPB (2009a) Uprooting geographic thoughts in India: toward ecology and culture in 21st century. Foreword: Prof. David Simon (Royal Holloway, London). Planet earth & cultural understanding series, Pub. 1. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (2009b) Geographical thoughts in India: snapshots and vision for the 21st century. Foreword: Prof. Martin J. Haigh (Oxford Brookes University, UK). Planet earth & cultural understanding series, Pub. 2. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (2009c) Banaras: making of India's heritage city. Foreword: Prof. Niels Gutschow (University of Heridelberg). Planet earth & cultural understanding series, Pub. 3. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (2009d) Cosmic order and cultural astronomy: sacred cities of India. Foreword: Prof. John McKim Malville (University of Colorado, Boulder, USA). Planet earth & cultural understanding series, Pub. 4. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (2009e) Banaras, the heritage city of India: geography, history and bibliography. Pilgrimage and cosmology series: 8. Indica Books, Varanasi
- Singh RPB (ed) (2010) Sacred geography of goddesses in South Asia. Essays in memory of David Kinsley. Planet earth & cultural understanding series, Pub. 5. Cambridge Scholars Publishing, Newcastle upon Tyne U.K.
- Singh RPB (ed) (2011a) Heritagescapes and cultural landscapes. Foreword: Prof. William S. Logan (Deakin University, Australia). Planet earth & cultural understanding series, Pub. 6. Shubhi Publications, New Delhi
- Singh RPB (ed) (2011b) Sacredscapes and pilgrimage landscapes. Foreword: Prof. Dallen J. Timothy (Arizona State University, USA). Planet earth & cultural understanding series, Pub. 7. Shubhi Publications, New Delhi
- Singh RPB (ed) (2011c) Holy places and pilgrimages: essays on India. Foreword: Prof. Robert H. Stoddard (University of Nebraska, Lincoln, USA). Planet earth & cultural understanding series, Pub. 8. Shubhi Publications, New Delhi
- Singh RPB (2011d) Indo-Kyosei global ordering: Gandhi's vision, harmonious coexistence, & ecospirituality. Foreword: TAKEMURA Makio. Research Center for Kyosei Philosophy, Toyo University, Japan
- Singh RPB (2013) Hindu tradition of pilgrimage: sacred space and system. Foreword: Prof. Robert H. Stoddard (University of Nebraska, USA). Planet Earth & Cultural Understanding Series, Pub.
 9. Dev Publishers & Distributors, New Delhi
- Singh RPB (2016) Progress in the cultural geography and historical geography of India, 2000–2016. Web publication: https://www.academia.edu/28235609/_469.16_._Progress_in_the_Cultural_Geography_and_Historical_Geography_of_India_2000_2016-_Rana_P.B._Singh_IGU-____INSA_7_Reports_92pp_-___55_428_words. Accessed 15 Dec 2019
- Singh RPB (2019a) Continuing culture and meeting modernity: the world heritage villages of Shirakawa-Go and Gokayama, Japan. In: Bharne V, Sandmeier T (eds) Routledge companion of global heritage conservation. Routledge, Taylor & Francis, London & New York, pp 128–151
- Singh RPB (2019b) Mohandas (Mahatma) Gandhi (1869–1948). In: Simon D (ed) Fifty key thinkers on development. Routledge key guides series. Routledge, London & New York, pp 168–174

- Singh RPB (2019c) Swami Vivekananda (1863–1902). In: Simon D (ed) Key thinkers on development. Routledge key guides series. Routledge, Taylor & Francis Group, London and New York, pp 442–448
- Singh RPB (2020) Sacrality and waterfront spaces in India: myths and making of place. In: Ray C (ed) Sacred waters: a cross-cultural compendium of hallowed springs and holy wells. Routledge, Taylor & Francis, London & New York, pp 80-94
- Singh RPB, Rana PS (2002) Banaras region. A spiritual and cultural guide. Pilgrimage & cosmology series: 1. Indica Books, Varanasi, 2nd revised edition, 2022
- Singh RPB, Rana PS (2019) Visioning cultural heritage and planning: Banaras, the cultural capital of India. In: Bharne V, Sandmeier T (eds) Routledge companion of global heritage conservation. Routledge, Taylor & Francis, London & New York, pp 152–175
- Singh RPB, Rana PS (2020a) Faith and place: Hindu sacred landscapes of India. In: Edensor T, Kothari U, Kalandides A (eds) Routledge handbook of place. Routledge, Taylor & Francis, London & New York, pp 75-87
- Singh, Rana P.B.; Rana, Pravin S., and Olsen, Daniel H. (2022a) Sacrality, Nature and interfacing Religious Tourism in India. In, Daniel H. Olsen and Dallen J. Timothy (eds.) Routledge Handbook of Religious and Spiritual Tourism. Routledge, London: pp 135-151
- Singh RPB, Rana PS (2020c) Contemporary perspectives of Hindu pilgrimage in India: the experiential exposition. In: Liutikas D (ed) Pilgrims: values and identity. CABI religious tourism and pilgrimage series. CABI International, Wallingford, Oxfordshire: CA, pp 181–196
- Singh RPB, Singh RB (1981) Changing frontiers of Indian village ecology. A Bihari village. NGSI, Varanasi, Pub. 27
- Singh RPB, Kumar S (2020) Sacred-heritage city development and planning in India: a study of Ayodhya. In: Thakur R, Dutt A, Pomeroy G, Thakur S (eds) Urban and regional planning and development: 20th century forms and 21st century transformations (Festschrift to Prof. Frank J. Costa). Springer Nature Switzerland AG Dordrecht and New York, pp 301–320
- Singh RPB, Kumar S, Rana PS (2020a) UN SDGs and context of heritage cities in India: a study of Ayodhya and Varanasi. In: Sahdev S, Singh RB, Kumar M (eds) Geoecology of landscape dynamics. Advances in geographical and environmental sciences. Springer Nature Pte Ltd, Singapore, pp 121–140
- Singh RPB, Rana PS, Kumar S (2020b) Intangible dimensions of urban heritage: learning from holy cities of India. In: Silva KD (ed) The Routledge handbook on historic urban landscapes of the Asia-Pacific. Routledge, Abingdon Oxon & New York, pp 275–291
- Singh RPB, Kumar S, Rana PS (2020c) Appraising sacrosanct environment in India: a study of Ritualscapes of Ayodhya. In: Thakur R et al (eds) Environment, development and culture: global perspectives, a festschrift for Prof. Pradyumna Prasad Karan. Springer Nature, Dordrecht & New York: ca, pp 251–266
- Singh RPB, Yuihama S (eds) (1981) Changing Japanese rural habitat. The agricultural dimension. NGSI, Varanasi, Pub. 26
- Singh RPB (2021a) Heritagescapes of the Gangā River Basin: understanding global civilization. In: Mishra N (ed) Gangā the River of 'Sanatan' Civilization. Research India Press. New Delhi, pp 71–99
- Singh RPB (2021b) Place-Based Ecoliteracy and Education for Sustainable Development: vision from india. In: Dutta B, Chaudhuri P (eds) Global Education 2050: enhancing global citizenship & online partnerships. Book Project: XI. MTC Global Trust, Research & Publishing. Bengaluru, pp 1–29
- Singh RPB (2021c) Ecospirituality and Sustainability: vision of swami vivekananda. In: editorial board (eds) MANANAM (Reflection): exposition of vedantic thought. Chinmaya Mission West Publications. Piercy, CA, USA, pp 21–30
- Singh RPB (2021d) Environmental Ethics and Sustainability in Indian Thought: vision of mahatma gandhi. J Indian Philosophy and Religion W Virginia USA, 26: pp 55–74

- Singh RPB, Kumar S (2022a) The Sacred Nodes of Pañchakroshī Yātrā route Varanasi (India): spatial perspectives, and prospects for future. Esempi di Architettura, Int J Architec Eng Aracne Editrice in Rome. Italy, 9 (2): 123–142
- Singh RPB, Kumar S (2022b) Ayodhya: sacrosanct environment and ritualscapes of a holy-heritage city of India. In: Thakur R et al. (eds) Environment, Development and Culture in South and East Asia: a festschrift to Prof. Pradyumna Prasad Karan Vol II. Development and Culture. Springer Nature Switzerland AG, Cham c pp 251–266
- Singh RPB, Kumar S (2022c) Ayodhya India: placemaking and transformation of historic urban landscape. In: Singh RPB, Niglio O (eds) Placemaking and Cultural Landscapes. Springer Nature Pte Ltd. Singapore
- Singh RPB, Niglio O (2022a) Introduction: historic cities and cultural-religious heritage: preservation & regeneration. Esempi di Architettura, Int J Architec Eng Rome Italy, 9 (1–2): 5–13
- Singh RPB, Niglio O (2022b) Interfaces among Placemaking and Cultural Landscapes: review and appraisal. In: Singh RPB, Niglio O (eds) Placemaking and Cultural Landscapes. Springer Nature Pte Ltd. Singapore
- Singh RPB, Rana PS (2022b) The Kashi Vishvanatha Varanasi City India: construction, destruction, and resurrection to heritagisation. Esempi di Architettura, Int J Architect Eng Rome Italy, 9 (1): 15–30
- Singh RPB, Rana PS (2022c) Hindu Pilgrimages India and Religious Functionaries. In: progano Nicolas R, Joseph C, Kumi K, Xose S (eds) Host Communities and Pilgrimage Travel: asia and beyond. Perspectives on Asian Tourism series ISSN: 2509-4203. A project of the Center for Tourism Research Wakayama University Wakayama city Japan, Springer Nature International Publishing Switzerland, Cham
- Sopher DE (2009) (first in 1973) Towards a rediscovery of India: thoughts on some neglected geography. Reprinted in: Singh RPB (ed) Uprooting geographic thoughts in India: toward ecology and culture in 21st century. Planet earth & cultural understanding series, Pub. 1. Cambridge Scholars Publishing, Newcastle upon Tyne UK, pp 270–294
- Yuihama S, Singh RPB (eds) (1980) Changing scene of rural habitat in developing countries. Proceedings, 24th IGC Okayama symposium. Okayama: Geography Dept. & IGU-WG: TRHDC (Japan).



Ravi S. Singh received higher education from B.H.U. (B.A. Hons), J.N.U. (M.A. & M.Phil.), and J.P.U. (Ph.D.). His doctoral research is in geography of sacred places dealing with goddess places in India. With over 22 years of teaching experience at different institutions, he is currently Professor at the Dept of Geography & Adjunct Faculty: Bhojpuri Study Centre, Banaras Hindu University. He has authored/edited nine books published from India and abroad, including two in press. Over 100 academic works of different genres of Prof. Singh, many of them cross-disciplinary, are published internationally as well as nationally in reputed journals and research series from the United Kingdom, Japan, Germany, Sweden, Nepal etc. including one in impact factor journal. Associated with several prestigious national and international professional bodies and academic programmes, he is Member: State Higher Education Council, Uttarakhand (since August 2017), Vice-President: Indian Society of Spatial Science Kolkata (3rd term), and Secretary: The Institute of Indian Geographers, Pune (2 terms), Treasurer: National Geographical Society of India (Varanasi, India) and member on the editorial boards of several journals.

Prof. Ravi Singh has the honour of delivering the 31st Prof. Nirmal Kumar Bose Memorial Lecture at the Geographical Society of India (Kolkata, 2014), Professor Enayat Ahmad Memorial Lecture (Ranchi, 2015), Prof. R.N. Dubey Memorial Lecture (Allahabad, 2019) and over six dozen invited lectures in different institutions across India. He has been Enrichment Fund (Association of American Geographers) Awardee, 2011; and Academic Advisor: The United States-India Educational Foundation, USIEF (2015-16). Prof. Singh has also the credit of contributing to over three dozen international and national seminars/conference/workshops on cross-disciplinary themes as Chief Guest, Guest of Honour, Keynote Speaker, Session Chair, Invited Speaker, and paper presenter in India and abroad in recognition to his professional expertise; and, organising seven national/international seminars/conference/workshops. He has supervised/supervising fourteen doctoral/post-doctoral research fellows. His foreign academic visits have been to the USA, Poland, The People's Republic of China, Sri Lanka, and Nepal. The main areas of his academic interest are geographical thought, geography education, social and cultural geographies, and development geographies with special focus on environment-development interface.

Bharat Dahiya is a Global Sustainability Leader, Professional Keynote Speaker, Urbanist, Planner, Geographer, Futurist, Educator, Team Leader, and Mentor. He is Director of Research Center for Sustainable Development and Innovation at the School of Global Studies, Thammasat University, Bangkok, Thailand. He is an Extraordinary Professor at the School of Public Leadership, Stellenbosch University, Stellenbosch, Western Cape, South Africa, and a Distinguished Professor at Urban Youth Academy, Seoul, Republic of Korea. He is also a Founding Board Member of the World Smart Cities Economic Development Commission under the World Business Angels Investment Forum. Prof. Dahiya read for his M.A. in Geography from Jawaharlal Nehru University, and Master of Planning from School of Planning and Architecture, both based in New Delhi, India. He holds a PhD in Urban Governance, Planning and Environment from the University of Cambridge, United Kingdom.

An award-winning urbanist, Prof. Dahiya combines research, policy analysis and development practice aimed at examining and tackling socio-economic, cultural, environmental and governance issues in the global context of sustainable development. Since early-1990s, his research and professional work has focused on sustainable cities and urbanization, strategic urban planning and development, urban environment and infrastructure, urban resilience, and cultural heritage and landscapes. Working with the World Bank, UN-HABITAT, the Asian Development Bank, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), and UNDP, he initiated, led, and contributed to international projects on sustainable urban development in a



number of countries. Prof. Dahiya conceptualized and coordinated the preparation of United Nations' inaugural report on *The State of Asian Cities 2010/11*. At the World Bank headquarters, he conducted the first-ever systematic review of the Bank's investments for improving urban liveability, published as a co-authored book, *Urban Environment and Infrastructure: Toward Livable Cities* (2004). More recently, he co-authored Partnering for Sustainable Development: Guidelines for Multistakeholder Partnerships to Implement the 2030 Agenda in Asia and the Pacific (UNU-IAS, and UN-ESCAP, 2018), and co-edited New Urban Agenda for Asia–Pacific: Governance for Sustainable and Inclusive Cities (Springer, 2020).

Prof. Dahiya advises a number of professional, academic, private sector, and non-profit organisations around the world. Since 2019, he has been a Member of the International Advisory Board for the UN-HABITAT's *World Cities Report* (Nairobi, Kenya). He is also a Member of the Advisory Group for *Future Earth Urban Knowledge–Action Network* (Montreal, Canada).

Since early-2014, Prof. Dahiya has been the Series Editor for the SCOPUS-indexed Springer book series, Advances in 21st Century Human Settlements, which has a growing collection of monographs and edited volumes. He serves on the editorial boards of the Italy-based Geographies of the Anthropocene book series, and several journals: Environment and Urbanization ASIA, Journal of Urban Culture Research, ICON: Journal of Archaeology and Culture, National Geographical Journal of India, Chinese Journal of Population, Resources and Environment, and Jindal Journal of Public Policy. He has held academic positions in Australia, Indonesia, South Africa, and Thailand. Reuters, Inter Press Service, SciDev.Net, Nishi-Nippon, The Korean Economic Daily, China Daily, The Hindu, Deccan Herald, Bangkok Post, The Nation, UB Post, The Sunday Times, and Urban Gateway have quoted Prof. Dahiya's work.

For his professional contributions to sustainable urban development in Mongolia, the Government of Mongolia awarded Prof. Dahiya with a *Certificate of Honour*, and the Municipal Government of Ulaanbaatar decorated him with a *Medal of Honour*. In December 2021, the Global Council for the Promotion of International Trade conferred a *Global Sustainability Award 2021* on Prof. Dahiya.

Making of a Dweller Indian Cultural Geographer: In Conversation with Professor Rana P. B. Singh



Abhisht Adityam and Rana P. B. Singh

Abstract Cities in the Global South draw people from their hinterland due to various reasons. Kashi, Varanasi, or Banaras—a few names by which this city is known and addressed, has drawn hundreds and thousands of people, many of whom stayed back and adopted it as 'their' place. Everyone has her/his own story and experiences to share and narrate. Rana P. B. Singh, in whose felicitation this volume is published, too came as a postgraduate student (1969-70) herein, Banaras Hindu University, and received his higher education. His academic zeal took him to different places in India and overseas, but he returned to this city and adopted it. Searched and researched, sometimes alone, some other times with collaborators and friends, his 'co-pilgrims'. He has made this city his home since the late sixties but for some time when he was abroad in different capacities. And, thus spent almost half a century understanding unfolding meanings of different layers of the city as it is said metaphorically that this city is older than history and maintained the path of succession-sustenanceand-sustainability-as to how Rana has narrated in his writings. His committed engagement continues till today when has entered his seventies. This chapter is a little unconventional in the sense that it is based on the narrative put forth by himself describing his journey from the place of his birth, a typical Middle Ganga Valley village, his struggles-psycho-emotional to professional, professional attainments and recognitions, and finally, the future he foresees of his adopted home city and the tradition of Varanasi (Banaras) Studies that he has developed through dedicated work and untiring zeal to serve the cause of it at all forums-local, regional, national and international.

Keywords Culture · Heritage · Sacredscape · Sacred geometry · Pilgrimage · Literary images · Faithscape

R. P. B. Singh (⊠) Department of Geography, Banaras Hindu University, Uttar Pradesh, Varanasi, India

© Springer Nature Singapore Pte Ltd. 2022

A. Adityam

Department of Psychology, Banaras Hindu University, Uttar Pradesh, Varanasi, India

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_3

1 Early Childhood and Growth

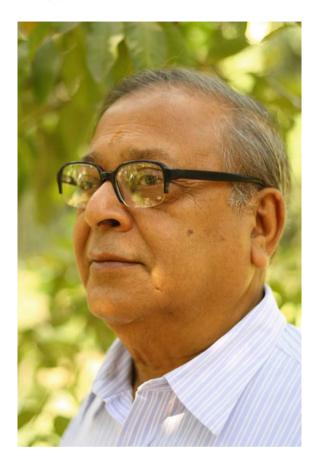
My childhood was not like a normal one because I was born (dob: 15 December 1950) in a very interior rural area and when I was a young toddler of around 4-year of age my mother died. Ours was a joint family, so naturally, my aunts took care of me, and later my *phuā* (*/buā*), my father's sister, took me along with her. And that is how I was raised in two families—starting from a village based very traditional joint family of my own and then growing upon another family that was like a royal one of *phuā ji* as they were big landlords.

After some years when I was in my early teenage years, I once got very sick. I was taken to a small-town local doctor who said that this child is going to die, and my family thought if it really happens, it would be a big curse for the whole family. So, they laid me down in an ashram of the Ramānandī sect, named Svamī Sarayudās known as 'Sisvaniyā Bābā' (1845–1972). He used to live under an Ashoka tree (*Saraca asoca indica*). This way I have been raised in a monastic system for 4–5 years under his guidance. In a technical sense, one can tell him illiterate; but he was a very enlightened individual who knew so many *Shāstras*, *Purāṇas*, and other Hindu religious texts. I had to read something from those texts every day to him and he used to explain the inherent meanings there. That is how I got aware of the *Shāstra* tradition and classical Hindu religious literature (cf. Singh 2015b, DeVivo 2016). I had completed my high school living in those circumstances. You may term this stage as the first phase of my childhood, spanning from my infancy to my intermediate level education which I completed in 1965.

2 Interpreting Reciprocity in Divinely Designed or as Traumatic Change

Well, it depends upon how a family raises up and brings and takes care of a child. If a child is given proper care, affection, least pressure and not a very formal kind of training but a condition in which s/he can learn; s/he grows in own way. My situation was like that only. I was not trained or taken care of in a very formal way. I think that it was good in my case. But there are several cases I remember wherein a child under strong parental pressure to become something of their choice had to face extreme psychological problems. It develops due to the difference between what the parents expect and what a child wants to do and then the clash begins traumatizing both. A few times the clash gets resolved but a lot of times it doesn't. My case was different (Fig. 1).

Coming back to my personal case, there are two conditions that one might think of. The first is that there is nothing in life or in the world that can be clearly differentiated just like a wall that divides spaces. And the other thing is who am I to decide my destiny? I was too young then to understand and decide. Even these stories are not very clear to me, personally speaking. I have come to know through my elders and relatives that this is how I was raised. These conditions of family, society, health, and so on, and people's response were common in rural India during my childhood Fig. 1 Rana P. B. Singh in his garden (Jodhpur Colony, Banaras Hindu University, Varanasi, India), trying to understand Nature-Culture reciprocity, 15 December 2017, celebrating his 67th birthday in solitude



days, especially the area to which I belong. Even within one kinship, all relatives and families are not on the same pedestal. I see my past today as merely a chance factor and this is a very common thing in the traditional Indian family and society which are situated in the interior parts.

As far as my upbringing under the spiritual tutelage of my Guru-ji 'Sisvaniyā Bābā', I feel fortunate and grateful to the almighty God. I realize that this was such a wonderful thing that has happened to me—I can handle or deal with both *Shāstra* tradition and scientific tradition very comfortably. I look at it as the foundation of my life and not otherwise. In a way, one can say this is somewhat a sort of continuation from the grass-root traditionalism to modernism and science. Besides that, whatever hurdles came in my way I had some spiritual strength to handle them. So, I've always tried to solve my problems with the divine association. That's why I never felt negative. During all my troubling times, I've always found the rays of something positive.

3 Blessings of Sisvaniyā Bābā and Turning Point in Life

Yes, my life journey followed the path in two ways, what metaphorically called from 'realization' (*anubhava*) to 'revelation' (*anubhūti*). In one way one can say Sisvaniyā

Bābā has saved my life and awakened spiritual insight. On the other hand, a very important point is that Baba ji, technically an illiterate man but spiritually an enlightened person never thought of making a child *shishya* ('pupil/disciple'). He always tried to educate me through the stories from religious texts and their interpretation with emphasis on high moral values and spiritual life. Then, he encouraged me to get formal modern education and sent me to high school. So, from both sides of my life, he was the great savior and I owe him for it. I would like to emphasize here that my grooming in spiritual education or enlightened education under his direct supervision and guidance has always offered something positive and useful throughout my life.

4 Walking on the Path Towards Modern Education and Academic Journey

Earlier, I was more involved in yoga, meditation, reading the religious texts, taking the sacred bath, doing *Puja*, performing the rituals, and doing all other stuff that a monk is supposed to do. In the passage of time, my *Guru-ji* said, "your mind is ready for modern things because your purpose in this world is to serve the society. What you are doing right now is not a real duty. The true task is to serve the society and you can't do this without modern and good education". This way he gave me a new way of thinking and still most of the time whenever I am in trouble, I remember my Guru-ji and his invisible spirit that shows me the right path. He always said that you don't worry about spiritual education, you think you are leaving *this* world and going to *that* celestial world. Both worlds are the same, and it is just two sides of reality. If your 'conscience' is awakened, you can always be good; so, do that. And that is how I started my lifeways and career.

5 Reaching to and Studying at Banaras Hindu University

Of course, Bihar is my birthplace, I never studied there. It is Uttar Pradesh where I got all my education. I received my primary education in the Basti district. There I was living with my family, which had adopted me and treated me like a royal family member. Of my school education, I always remember two teachers. When I was in sixth or seventh grade, the most respected teacher was (Shri) Baleshwar Singh who was a very strict person. He always used to carry a big stick in his hand and would punish students for a little mistake but with an affectionate skill, he taught me the first lesson of geography. He only wanted to threaten me for the good cause. So that was the one memory I have about how that training started to understand and love geography and landscape (Fig. 2).

So again because of my eye injury, I had to go to the village. When I got there, I had to change my stream from science to arts, when I was registered in the 10th grade. In grade 9th there was no such topic as pure science, there were only compulsory



Fig. 2 Rana in Sikkim on a hilltop, in the background is Kanchenjunga peak, during a field tour to study the man's adaptability with nature, 9 November 2018

subjects such as English and General Science; the latter was compulsory those days. Geography was the only subject close to science. I invariably remember our science teacher in the Narhari Baba Intermediate College at Karan Chhapra (in Ballia district), who was Mr. Krishna Kumar Mishra (ca 1914–1977). He was a very affectionate person and never bothered about fixed classes. He believed that learning can be started anywhere at any time. He always used to say, "you're a master, you are great". He used to motivate everyone in all possible ways. In no way I can forget this.

I have already spoken about this in one of the international geographical union reports when I was interviewed at the 33rd International Geographical Union (IGU) World Congress in 2016, held in Beijing, China (see Singh 2015b, and DeVivo 2016; Figs. 3 and 4). He used to teach us from a classic book, Arthur Holmes' *Principles of Physical Geology* (1956, 3rd ed. 2016, London: John Wiley), which is referred to final year M.A./M.Sc. students or even researchers. His teaching method was far ahead of his times, using what we call participatory teaching and learning today. His approach was highly motivating and always positive. I have never heard him saying 'this is wrong'. Instead, he used to say things like—oh, it's great! All his students and mostly my classmates from that batch, particularly those who have opted for geography are now in different places and whenever we meet, we remember him by saying that we are Mishra-ji's creation. This was my educational journey so far and how things started. One can say from traditional religious education to meeting such an inspiring teacher.

After completing my bachelor's degree, a terrible situation arose, and it was a very crucial juncture in my life. The family that protected me said that as I have passed my bachelor's course, it was time to do something in life to support myself and help my family. When I came back to my ancestral home, I tried to talk to my father but that did not yield any result. He told me that he didn't have any money with him and couldn't help me financially. I asked him to give me whatever he had with him. That



Fig. 3 Rana with Emeritus Prof. Yukio Himiyama (Hokkaido, Japan), President IGU 1916–2020, an old friend since 1980, who inspired to understand the frame of interdisciplinarity, 23 August 2016 Beijing



Fig. 4 Rana with Prof. Benno Werlen, Unesco Chair of Global Understanding (Jena, Germany), with whom collaborated as member of the IGU Commission of Cultural Approach in Geography 2012–2016 and analyse the vivacity of cultural landscapes, 21 August 2016 Beijing

was the period of the mid-1960s. Can you imagine that he gave me just eighty rupees (that time equals US \$06.50), that too by lending a piece of land because he didn't have any cash and said to me, 'Dear son, this is the last time I am supporting you because we cannot sell the joint properties. Okay, now you go ahead'. From there I went straightway to Banaras because all my old friends from college days were there. One of them was Parasnath Singh, who later became Professor and Head of the history department at Banaras Hindu University.

There is another turning point in my life when I got admission in geography and was the only individual to be admitted without fulfilling the minimum criteria because at that time there were 20% of seats reserved for those who previously studied in Banaras Hindu University. Secondly one should know to speak English. I didn't know proper English at that time. My name was not on the first admission list. However, I manage to meet Prof. Ram Lochan Singh (1917–2001), then head of the department requesting help taking into consideration of my very high marks in geography. After some discussion, he was convinced of my points and assured me to get admitted to geography courses. You could say this was the third level or phase in my career.

In between this, there was another man from Basti district named Kamaleshwar Prasad Tripathi (1943–2011). He was a college teacher in Ballia city, where I studied. Every day he used to teach me a bit of English and Geography. During our (student) days, no one could think of charging money in return for tutoring. Teachers used to tutor students out of devotion and as moral service to the society through the needy students. We used to get 2–3 h of proper lectures every day in his house. Sometimes he used to punish us; and, then his wife, also a professor of education, used to offer us some food out of affection. With my own such experiences, I inherited academic values and good practices through my personal experiences and try to inspire and encourage people, including my students when I was in service, who come to me with academic inquisitiveness. This nature of mine is carried also into my public lectures and talks. The values inculcated and learned no way allow me to take money, even expect that, while sharing my knowledge with the curious learners. So, these are the three specific cases at different levels of education, learning and then coming to geography, and then accomplishing my doctorate.

6 Professional Contributions in the Field of Geography

I would like to respond to this point by first referring to the general practice of those days within the field of geography in which fieldwork was considered very important. At Master's level, we had to be in the camp for a month-long period in places like Sarnath (a suburb of Varanasi city), which was a green-lush countryside then, and do all daily chores ourselves. There was no cook or someone else to help us, every student had to do something as a team member. That was one of the great lessons learned from Professor R. L. Singh who often used to say that geography is not theoretical in nature, it is the study of society in the field through which you

acquire knowledge, one must do it practically. It came naturally to my individual personality on account of my rural background. When I joined (doctoral) research program, I started studying the village life, caste system, zamindari system, and land ownership, and associated conflicts geography under the purview of gamut of cultural landscapes. Professor R. L. Singh then tried to give me the idea of how all these things should be linked in a theoretical process of understanding to bring out empirical yet integrated knowledge—the soul and essence of it. His idea was that if you are not developing a theoretical construct, it will only be empirical description. And at that time there was a great book entitled *Spatial Organization: The Geographer's view of the World* by Ronald F. Abler, John S. Adams, and Peter Gould (1971, Englewood Cliffs NJ: Prentice-Hall), a read-must kind of work during those days. It was the most famous textbook known across the world. We went through this book because it also used learning, studying the rural region, and connecting it to theoretical part in the same manner.

Then I got to read about the idea of families' growth in the passage of time and as to how a genealogical tree develops. In geographical literature, this simple idea is referred to as 'diffusion theory' developed in 1951 by Prof. Torsten Hägerstrand (1916–2004), a master of diffusion science, who was based at Lund University (Sweden). So, I read some of the original papers and with the support of my mentor (Prof. R. L. Singh), I developed interest in families, clans, and settlements: how a family settles down somewhere in the historical past, then their descendants settle down at the same site and location and later when they get dispersed, the entire landscape gets settled-dispersal of the built environment in cultural landscapes. Thus, this interest led me to do the case study of undivided Saran district (popularly known as Chhapra) in Bihar for my doctoral thesis. I was continuously in the field for a year (1971-72). After every two to three months, I used to come back to Banaras Hindu University, stay for 15-20 days, and again return to the field. In this process, I have developed a new type of understanding of geography. It is not just sitting over a cartographic table and mapping a place rather it is being a part of the society. And that is how I have learned different ways to geography, not the traditional one but the interdisciplinary nature that is close to anthropology, sociology, ethnology, and landscape cosmology. Looking through my Ph.D. thesis (awarded in 1974) no one can say it is a piece of geographical work in conventional terms as it contains relevant elements drawn from a good number of sister disciplines that prove its interdisciplinarity. These days we are talking of interdisciplinary methods which have become a buzzword in the world of academics; but, at that time it was not known as interdisciplinary perhaps due to the integrated nature of the subject or discipline of traditional geography in practice.

On one side, I tried to apply diffusion theory which came from thermodynamics and theoretical physics; and, on the other was the field study supported by genealogical history. My basic conviction was that whatever is in theoretical physics is also based on nature. Nature is also interpreted in physics in a structural sense. Here in the behavioral sense how people perceive, receive, have succession, and act. So why not link these two streams of thought together? I tried and developed a link between geographical space, time, and function phenomenon. When my thesis was submitted, a copy of it was sent to Professor Ronald Lister (1917–1985) of Otago University in New Zealand, who was one of my examiners. He got so much impressed that he edited my whole thesis and sent back the edited version. He wrote to Professor R. L. Singh and the vice chancellor of Banaras Hindu University. Dr. K. L. Shrimali-ji (1909–2000), "I'm sending NZ\$200 as a gift and I will not take remuneration/ honorarium from the University. Give this NZ\$200 to the candidate and get this thesis published; it will be a great contribution." He also sent me a copy of the edited version. I submitted my Ph.D. thesis in 1973 but the degree was awarded in 1974 and the thesis got published after 2-3 years in 1975. Before publication of the thesis, I started thinking in a new way based on one of the greatest books till date in geography, in terms of copies sold and circulated, "Geography: A Modern Synthesis" by Peter Haggett (1972, London: Harper & Row, and was translated into six languages; the fourth expanded edition was published in 2001 under the title *Geography: A* Global Synthesis, Englewood Cliffs NJ: Prentice-Hall). Copies of this book were sold in millions, so I was impressed by that man. I met Peter Haggett (b. 1933—) in June 2001 at the International Conference on 'Towards an Electronic Cultural Atlas: E-publishing & Knowledge Management in the Humanities' held at University of Sydney, Australia—that nice gentleman and asked innocently how he wrote that book which became so popular that any student of any discipline can read and understand it. This meeting had a background. While reading his book Locational Analysis in Geography (1964), I somehow found some mistake at one place in the book by just a chance factor and it changed my life. As I was not that good in either mathematics or statistics except for some knowledge gained through compulsory lessons in geography, I consulted my teacher Shri Narmadeshwar Prasad to verify the mistake. He had a soft corner for people coming from Bihar and countryside because he himself was from Bihar. I went to his home. I showed the book to him and said "here is the problem sir! Somehow, I don't know if it is right or wrong. In Peter Haggett's circularity and hexagonal diagram there is something with which I have got confused. Only you can solve this". He confirmed that the hexagonal shape was perfect. He asked me to get a note published on that issue but not to put his name. Afterward, I wrote to Peter Haggett, some praises in the beginning and then indicated his mistake and suggested the solution. Those days the commonly used means for overseas' communication was aerogram. So, I send an aerogram letter to Peter Haggett. On receiving the same he was so happy that he sent me two to three books from his collection. I used to live in Aiyer Hostel (Banaras Hindu University) in room number 19. When the packet arrived everyone in the hostel asked me to give a treat of tea and sweets. They remarked that you are a big man now! You received such a big parcel! It was a rare thing at that time to receive a packet through a special British mail. Such a wonderful appreciation encouraged me and since then my serious reading habit took off. My serious reading was for searching any slip, communicating, and suggesting and thus adding a new dimension to own personality.

But the real change came in the year 1977. My Guru-ji R. L. Singh retired on March 31st. There was nothing like 'session benefit' those days. When Guru-ji retired, having close connections with senior professors in Israel (Moshe Brawer, b. 2 Nov. 1919 – d. 28 Dec. 2020), he was invited as visiting faculty. In fact, in a span of

seventeen to nineteen years, nobody had visited Israel due to gap in diplomatic relationships. We were not having cordial relations, but hon'ble PM Mrs. Indira Gandhi (1917–1984) took initiative to develop good relationship with Israel. Since Professor R.L. Singh had good rapport with Mrs. Gandhi, he was nominated as the Indian representative to do some comparative study for which he went to Israel in late April 1977.

It was summer, somewhere in late April. Prof. R. L. Singh had already left and then I received a message that he had left some important files and a question arose as to who would carry those files to Delhi where he was already staying for a visa which was two-three days of business. Kashi Vishwanath (K.V.) Express train had started playing a month ago and I decided to carry the files. I took a small bag and carried the papers from his family and the department and went to Delhi. A completely different life started while going to Delhi. At the railway station, I could see a strange man who was seven feet tall. The man had a big nose with a short beard, and he was wearing a long gown. He had two to three pipes with him, and he was swaying when he walked. I thought, "What a wonderful hippie! Let me get a closer look at him." He was shivering and shouting "Help me! Help me!" I asked, "May I help you?" He said, "Yes! Please do to get my bogie and seat number!" I helped him to get his bogie and the seat booked.

Next day, at 5 o'clock in the morning the train reached New Delhi railway station. So, I thought that I should have a cup of tea. I was relaxed and refreshed in the compartment itself and sipped a cup of tea. The same gentleman arrived. I wished him good morning. He asked, "why are you saying good morning to me?" I said, "We met vesterday, and I helped you in search of your bogie and seat." He said, "Oh, you are a great man! Tea from my side for you. No please, you are a great man, shake hands. Oh dear, you helped me. Then I said this is India and you are our guest, so I helped you. Okay, some cookies for you, so we had tea with some snacks. Then he enquired me about my plan and whether I had five minutes to talk. My reply was that I had one and a half hours' time and then it will take me 30 min from here to go to my master's place to deliver something very urgent. He said, "Oh, my goodness! I also have one and a half hours to pass here, and I am going in the same direction to meet one of my friends. What a coincidence? Let's sit together, is it okay for you?" For me, it was a very enjoyable experience with that person. We had some cookies and then started talking to each other. In this process, I kept on watching and teasing him in a typical Indian style. During our conversation, he raised so many good and critical questions related to geography, space, time, society, interdisciplinarity, technology; and I was just enjoying the discourses. While leaving the platform, he asked my name and address to mention in his diary which I shared, my hostel address. Just at the junction of departure, he added that I went to Varanasi to meet my friend and mentor in my early career during the late-1950s, but he was not in the city. Anyway, even though he was in rush, he disclosed the name of his friend—Prof. R. L. Singh, my own mentor, and master.

After a year passed, I received a letter mentioning my contributions and discussion I had with that person; and that's how I was invited for an International Conference on 'Ritual Space in India: Studies in Architectural Anthropology': 22–25 February

1979, organized at Max Müller Bhawan, and the other arrangements at the 5-star Hotel Taj Bombay (Mumbai). I got suspicious of the content and went to my Guru-ji Prof. R. L. Singh and said, "Sir, here is a letter. It seems that somehow my address is wrongly typed on it". Guru-ji said, "What's wrong?" I said, Sir please read it. Then he told me to read it for him and after that, he said, "Rana, Lord Shiva wants you to follow this path of understanding and interpreting sacred landscapes". That letter was from a well-known architectural historian Prof. Jan Pieper (b. 24 May 1944–), who was the President (vice chancellor) of Germany's Aachen Institute of Technology and member of the UNESCO's Committee on heritage; he was such a great man whom I had mistaken to perceive him as a hippy. At the end, he wrote not to worry and in the last sentence, he asked to prepare and send an abstract which he assured to edit before final submission.

To travel up to Bombay (now Mumbai), I got a reservation done in third class thinking that they may not defray the amount spent. After reaching Mumbai, I went to the Taj Hotel and got checked in. Needless to mention that it was my first experience of entering any five-star hotel. That was the year 1979 before which I had no occasion to even enter any star hotel in India.

After an hour I was informed and invited to a special meeting. I got ready and then went to the meeting venue. It was a small hall with round tables and people were sitting and only two to three Indians were present there. Some dignitaries were sitting in the center of the hall and there was the same man, in the same dress sitting there. Many baseless ideas started occurring in my mind. I went to him unhurriedly and whispered in his ear, "Excuse me, this is a very high-level meeting organized by the German Foundation, this is not for common people like you, so please go out". Nobody is saying anything to you; this is India, we respect our guests. He took it easy and told me coolly, "Rana, please relax; my name is (Prof.) Jan Pieper has invited you. It was beyond my imagination that he is such an important dignitary amidst around a thousand people attending that conference which was well-organized with two side-by-side big slide projectors and the state-of-the-art facilities of the time. When I saw the names of the authorities present there, I could not imagine giving a lecture on Banaras in front of them.

I was thinking of leaving this conference and returning to Banaras. In the meantime, Jan Pieper called me in his room and said, "Look, now that 'Rana' is dead; now, a new Rana is going to be born today. I have already discussed with two great personalities who know about Banaras. They will polish your writeup, and make you inspired to follow on. Don't think of leaving! Whatever you have we will get all that set. That was the occasion when I met two other great authorities in the field of architectural history and symbolism, viz. Niels Gutschow (b. 1941–) and George Michell (b. 1944–), for the first time. Both were so supportive that I have no words to express my gratitude to them. They put their own slides in my presentation and stood by my sides physically. During the presentation, to encourage and fill in the gap at many times they intervened saying, "Look this young chap is a little bit shy, so let me say what he wants to say". My so-called presentation lasted for one and a half hours! Later, that was published under their able editorship, perhaps the first such paper by a dweller Indian scholar in *Art & Archaeology Research Papers Series*, published from London; my article published in the volume was on social space of Banaras (Singh 1980). Since then, my life has become completely different. I never looked back to see anything but Banaras, which became the only focus of my academic concerns and later took the shape of a mission. It all started in 1979 and 43 years of this journey has already passed fruitful and academically rewarding as well taking into view my limitations and understanding. I must honestly confess that the contact developed, with Niels Gutschow and George Michell, developed into friendship and strong academic bonding between us resulting in similar collaborative works on Banaras with them.

7 Turning and March Since 1978

In the early-1970s, around 1972–1973, the first thing I developed in my studies was the etymological approach—the analysis of place names. So, I learned from the Sanskrit tradition "*Yathā Nāmo, Tathā Guṇah*", 'meaning as your name, so is your quality'. Now, this is a well-developed approach used by many scholars, particularly in settlement studies and critical social studies. I realized that through this approach the historical development of the rural landscape and its different linkages could be explained. And the same applies to urban settlements and their different parts as well. You may call it the first lesson I learned about cultural and sacred landscapes which I am continuing with.

My second contribution is the study based on the nomenclature in historical stories of the rural areas to understand the process of landscape development. The next question was why some caste (social groups) are higher and stronger; and, some as are lower and weaker, a very pertinent issue, in Indian rural studies, which still holds great significance. It is generally explained through the religious system and ritual traditions that the castes are higher or lower due to goodness, purity-pollution hierarchy (and untouchability), and so on. When I went into the field, I noticed that in the background is the economy and as it is well-known that traditionally the rural economy's backbone was land. Who owns big landholding is rich and treated higher than his counterpart in a diagonally opposite condition and status! This understanding shaped my field survey of nine villages based on which I developed my own 'Attributional Theory of Caste Ranking', parallel to that of McKim Marriott's (b. 1924-) developed 'Ritualistic Theory of Caste Ranking' during the mid-1950s due to which he became a world-renowned authority. When this idea appeared in a published article, it became a little bit controversial because my contention had challenged McKim Marriott's concept (see Fig. 5). When he read that he was very happy; and he still remembers that. The last time I met him was on 5th October 2015 morning in his home in Chicago together with my Chicagoan friend Sunthar Visuvalingam.

In my 'Attributional Theory of Caste Ranking', a graph was prepared to statistically show the growth and spread of a clan, process of settling down, and occupation of land ('territorial development theory') in spatio-temporal ways. Thus, I developed



Fig. 5 Rana having discourses with Emeritus Prof. McKim Marriott, a 91-years old icon of Indian village studies at University of Chicago, in his home who during his doctoral research 1971–1973 helped him in re-assessing Caste Ranking theory, 5 September 2015, Chicago

my own theory called the 'spatio-temporal diffusion theory' in a territory that was well received in the West too during the1970s and 1980s. Erik Bylund (1922–2005), at Umeå (Sweden) who was considered the master of the concept of rural settlement location and distribution and had received several awards in recognition of his basic theory, mentored me during my doctoral work to develop my diffusion theory. Similarly, he advised me to look at the shape of hundreds of villages through the lens of geographical factors like river, forest, stones, swamp, etc. together with the narratives in folktales and attempt an explanation collectively. So that was another contribution of mine in shape analysis. These were not very important contributions but at least they provided an alternative viewpoint and explanation from a dweller Indian geographer's perspective.

On 13th January 1993, I suddenly met John McKim Malville, an American astrophysicist from the University of Colorado. We had an interaction and we together turned towards a new interdisciplinary area which we termed 'cosmic geometry' or 'space geometry' or 'landscape geometry' in different contexts yet based on the same fundamental principle that all landscapes have some geometric shape. Even the temples are not located in a random and abrupt manner; in fact, they too have some geomagnetic force known to the great sages of the ancient past, based on which they were sited at specific locations. So, if you try to interlink them you will find some symmetrical idea behind, which could be explained through geometrical logic. It was fascinating on one hand and challenging on the other. But it drew my academic attention and I left behind the classical type of (settlement) academic issues and started devoting my attention to sacred geometry in 1993. John McKim Malville (b. 24 April 1934–) has published accomplished works on Hampi and Vijayanagara to his credit. And, we have worked together in several regions starting from Bodhgaya, Prayagraj (Allahabad), Chitrakut, Vindhyachal, Varanasi, Khajuraho, etc. After the passage of time, we published our joint research, and finally, I have published a book (2009), which was released in the International Congress of Cultural Astronomy in 2009 (Tenerife Island, Spain) as a special publication from India. The work that was started in 1993 and the major papers in the revised and updated form published in 2009, and since then I have been doing it. The past twelve years is what one can call the 'contemporary phase'.

The current phase of my academic work started about ten years ago. During the International Conference on "Cultural Landscapes", under the aegis of 7th ISOLA National Meet at Ahmedabad: 10–11 September 2011, I met Professor Sung-Kyun Kim (b. 18 Feb. 1956–d. 19 June 2020), a famous South Korean landscape architect and planner from Seoul National University, Seoul, South Korea, specialized in the nature-spirit of vegetal cover (*'gardenscapes'*) and cultural landscape. Our discourses and interactions led to a different type of interdisciplinary study. He invited me to South Korea and then we started working in landscape architecture together. In 2011 a new type of platform, challenging the West, called Asian Cultural Landscape Association (ACLA) was founded by Sung-Kyun Kim, me, and eight other members (see Fig. 6). He became the founding President, and I was entrusted with the responsibility of the Vice-President. In 2017, he was offered the chair to IFLA Cultural Landscape



Fig. 6 Rana with Prof. Sung-Kyun Kim (SNU Seoul, Korea), close to Korean Park in Ayodhya (U.P., India) as part of the Indo-Korean Project on cultural links between Ayodhya and Gimhae (Korea); we are working together since December 2011 under the umbrella of ACLA Asian Cultural Landscape Association as the current president and the founding president, respectively; 23 October 2019, Ayodhya (India)

Committee in which they said he cannot hold two positions simultaneously. It led to election for the office of president and the members unanimously elected me as the new President of ACLA, a position I have held since June 2018 and will continue till June 2023. Under its banner, we are trying to understand the cultural landscape with a special focus on the ancient Asian links, taking cultural-historical traditions that have continued and maintained since the ancient past. Generally, we say that India is an independent country, but we do not put forward the idea of cultural links with the rest of the (East and Southeast) Asian region.

Our research has proved how the Indian link starts from Korea, Japan, China, Myanmar, Laos, and Thailand, and goes up to West Asia through today's Pakistan, Afghanistan, Iran, and Iraq. We find all these regions linked under the big banner of the system of cultural landscapes. So, this is the latest research area in which I am working. In between these all, of course studying *Tīrtha Yātrā* ('pilgrimage') traditions is of my continued interest and deep concern-how the pilgrims move and what all they do during their religious journey being part of ritualscapes. To explain this, I introduced a concept called 'faithscape' which has been accepted in psychology but is lesser known in geography. Paul Devereux (1996: p. 136, 159, 270, 271), a famous environmental psychologist in his classic *Re-Visiting the Earth*, has devoted a full page of his book describing me as a pilgrim and wanderer, and the concept of *faithscape* in quite a detailed manner. I defined a faithscape that encompasses sacred place, sacred time, sacred meanings, sacred rituals, and sacred belief systems, embodying both symbolic and tangible psyche elements to realize man's identity in the cosmos and ultimately to receive blissful energy for a peaceful life. It shows the importance of this concept in psychological study as a factor, especially in environmental psychology. However, many of us do not consider these all as geography. But, in a way I can say 'geography is a way of understanding, feeling, expositing and harmoniously co-sharing'. So, everything coming through one's way of knowing and working contributes to understanding the 'world' as the 'home' of mankind'-the core of geographical thinking.

8 Varanasi Studies and Experiences

I can say that my first introduction to Varanasi was under the guidance of Professor R. L. Singh, my mentor, and master. He was known as the great authority on Banaras from the perspective of planning. He worked to earn his Ph.D. degree (awarded in 1953) under Professor Lawrence Dudley Stamp (1898–1966) on the urban geography of Banaras, later published in 1955. This work has immensely influenced me as a student. He used to refer to Banaras in whatever topic he taught and thus I learned about Banaras in an academic spirit from him. It was his inspiration in 1979 (22–25 February) that I attended International Congress on 'Ritual Space in India: Studies in Architectural Anthropology', at Max Müller Hall, Mumbai, supported by Max Müller Foundation (Germany) and that's how the journey started on the never-ending path

of a cosmic whole. There I met Jan Pieper, Niels Gutschow, and George Michell, about whom I already told earlier in somewhat detail.

Niels Gutschow has a long experience spanning over four decades with Banaras during which he has studied aspects like architecture, planning, symbolism of sacred sites, and religious journeys. I learned most of these under his guidance during the last three decades and in course of time again we have continued our study in collaboration with George Michell and then we published an anthology titled Banaras-The City Revealed (2005, Mumbai: Marg). It is like a coffee table book, but with a lot of research and a good number of visuals (photographs and maps). Individually speaking, I have already published ten books and 141 research papers (1980-2021) on different aspects of Banaras, covering mainly cosmology, astronomy, sacred spaces, heritagescapes, and pilgrimage traditions and mapping and interpreting them all to reveal their spatiality, temporality, sacrality-sublimity and cognitive images and inherent spirit of place (genius loci)-the core concern of my parent discipline geography. These were done in a new way. I do not have hesitation in admitting that it was mostly due to my intimate association with Niels Gutschow. Our first meeting was merely a chance factor in 1979, but the close association and collaboration were due to some divine force that continued for over three decades. So, in a real sense, he is just like my guru, who helped me to learn and do things practically in the field. I fondly recall even today our first-time pilgrimage to Panchakroshi Yatra in 1991 (20–24 April), when we together walked 88.5 km in the spirit of the true pilgrims co-pilgrimage. That *vatra* taught me a lesson of togetherness that if one needs to study deeply rooted pilgrimage tradition or sacred space, one needs to be focused on the field experiences through 'experiential' ('anubhava-janva') observation rather than searching for them in yellow turned pages of the texts/books. First, perform it and then narrate and interpret the deep experiences, while illustrating the corroborative and supportive textual traditions. So, on one side there would be things that you observed and experienced in the field, and on the other side would be the texts, mythology, and folklores who possessed the cultural roots. The textual tradition must be complemented with field understanding and experiences ("context"), and further with the help of traditions, texts, and mythology ("text") expositing the soft and sweet explanations that ultimately turn to deeper understanding and implicit expositions.

This journey moved forward with greater conviction after the publication of my first paper on 'Social Space of Banaras' in 1980 in *Art and Archaeology Series* (London, edited by Jan Pieper and George Michell). Through that, I got international recognition, particularly in the West. People started talking about me and this way the journey of '*Banaraswālā*' got further encouraged. A Swedish reviewer (Mark J. Katz), who had reviewed one of my books on *Literary Images of Banaras* (2004), wrote that Rana-ji has a particular type of special disease to be called '*Banarasanemia*' so he tries to see everything through the cosmic lens of Banaras/Kashi. I took that comment as a compliment in a healthy spirit thinking that certainly there is some good spirit behind me inspiring me to proceed further in this journey and I must use it. So, with support and collaboration with John McKim Malville, I started using the laser beam survey, G.P.S., electromagnetic survey on one side, and on the other side, I had started walking and talking with pilgrims mutually

co-sharing direct experiencing and deep feelings. Both complimented each other to make my understanding unique, and holistic. One example is of my first attempt to write something on Panchakroshi Yatra (pilgrimage) for which I undertook the journey of 88.5 km five times on foot in five days each time (1991-2011). The second time when I was doing this *vatra* with one of my friends and one of the senior colleagues from Japan, Professor Teiji Sakata, known as 'Guru-ii' in his country in the Hindi literature circle. During that journey, once my student and later my closed collaborator and co-author Ravi Shankar Singh (b. 8 Sept.1971-d. 21 April 2001), who later became my colleague as a full professor, tried doing sketches and putting together the field notes and this way we tried to do the journey and encouraged other scholars too. In course of time, I published a book on the Panchakroshi Yatra (2002/2013). Here, I can honestly tell you that whatsoever I have been able to do is not mine alone in a true sense; it has been the outcome of a combination of collaborations, joint research with several persons from different parts of the world—Finland to New Zealand, Japan to the United States, and also many from different parts of India-from the North to the South, and the East to the West. When I published another paper in an American journal on the pilgrimage routes and sacred journey of Banaras (1987), at proof stage the editor put a note that this article can't be published here because this is a copy of the great man Rana Singh and then the co-editor and guest editor my good friend Carolyn Prorock (presently emeritus professor at Slippery Rock University, U.S.A.) had to prove that he is the same man who is the author of the paper. I took that as an honor because that editor had never visited India, nor perhaps knew me, still, he put a note like that though it was the matter of a small journal *Pennsylvania Geographer* (1998), but very popular and widely circulated. It attracted many people to the field to perform and test the sacred journeys as described by me. So many scholars, including Ian McIntosh (U.S.A.) and Ian Reader (England), also tried to test whether my descriptions were correct or not by performing Panchakroshi Yatra using the above essay and my book (2002). In this way one can say in an overall sense, textual, contextual, astronomical, and *shāshtric* traditions come together in pilgrimage studies and analysis of sacredscapes.

In my interpretation, the name 'Banāras', consists of 'Banā', means ready to serve; and 'Ras', literally, juice (of life): it is good and bad, up and down, sour and sweet, all mixed together. I always feel that my whole life in Banaras is a mixture of all, if you see from the good angle, it is good, if you see from the bad angle, it is very bad. This is how I have experienced it. My tryst with Banaras may be put in three phases. First was that coincidental meeting with Niels Gutschow, George Michell, and Jan Pieper who helped me to understand and then map and describe the sacred spaces of Banaras. The second phase started in 1993 which completely changed my understanding. The day was 13th of January 1993 when I met an American astrophysicist John McKim Malville (b. 24 April 1934—); he was sitting at the bank of Ganga River at Asi (Assi) Ghat, we interacted then he was very much doubtful with whatever I published in 1987. I explained to him that I don't know all the scientific things, I did simple mapping and description based on my participatory observation with the devotees and pilgrims, nothing more than that. He said if this is correct the way you described, the sunrise on the 14th of January that is Hindu festival of Samkrānti (referring to transition of the Sun into the zodiac of Makara $r\bar{a}shi$ (Capricorn) on its celestial path), then naturally it is going to touch two other sun-shrines (Yama Āditya and Sāmba Āditya) and that's why it becomes something very special. Later, he was having a project sponsored by the National Science Foundation, Washington D.C. for this study. So, when we visited the field, he was using a sophisticated instrument and radar system, etc. that was set at Asi Ghat's Hotel Ganges View. When he went into the field, he used the laser beams and found out that it was 100% correct and then he started jumping like Archimedes and shouted "*Eureka*': I found it. Oh my God, I lost 20 years of my life searching this thing and here it is in Banaras. That is a part of life nobody knows". Then he returned and got the funding for a large project in which we worked together in the two phases (1993–1996, and 2001–2003). We called that 'sacred geometry' or 'landscape geometry', based on all the astronomical prevalent phenomena which proved through a very simple exercise that old temples are not at abrupt placed, they are at a very special site where geomagnetic gravity forces are very high and can be mapped out through their orientations and alignments.

The third phase of my experience with Varanasi/Kashi studies has to do with pilgrimage and sacred space which linked together from Sacred Geography and pave its path. This journey is still on and on forever under the purview of sublime spirit of cultural landscapes (2004, 2017) and heritage ecology (1995, 2011). In the meantime, I published two books which are quite known and well received. First one is catalog type of a book that has brief history and geography together with an annotated bibliography (2009a), compiled and edited by me and taken almost 30 years of time; it runs into about 500 pages with an entry of 1200 research publications on Banaras. Another book dealing with the history and heritage of Banaras city (2009b) was published by Cambridge Scholars Press UK (also available online). It has been very well received by readers and scholars. International authorities like Surender Bhardwaj and Niels Gutschow, have termed this book as a 'classic work'. Since each aspect of all my books is completed done by me alone, the moment I touch any one of them, I feel as if I am caressing my soul which is my life. This way Banaras study is my life and I live as a part of Banaras' spirit and will also die as a return to the same spirit from where the journey started. This is how my journey is going on. My latest publication, a review and appraisal of most of my earlier writings, in which I have been focused on sacred heritage and discussed all intricate problems of Banaras and tried to argue that why this city is not included in the UNESCO's World Heritage List, just released in an encyclopedic book from the Routledge Research Series (2019). Though it is not like the original article, some scholars wrote to me, praising the effort by terming it 'Bible of Banaras'. Let me put it in this way, "Banaras is not like a city researched by me, it is in my life and the credit of it is not all mine-no way at all. I am the medium in the form of an individual, voice, and writing; and all the credit goes to scholars all over the world, who helped me in different ways shaping me and helping me". To appreciate this point, see my bibliography book on Banaras (2009a). You can find there three hundred names of those people in different parts of the world who have contributed, helped, collaborated, walked, criticized, and added many more jokes and laughs. The journey is still on.

Sometimes people say everything about Banaras is good! No where there is something good there is something bad too, without bad, there is no value of good! In an international symposium at the Faculty of Engineering and Design, Hosei University at Tokyo in 2004, they presented the case of the five cities, having waterfront and historical links for five years. From Tokyo and Kyoto (Japan); Boston and New York City (U.S.A.) and then at the last stage they studied Banaras for one year with my collaboration. After going through my publication¹ through Internet, Professor Masahiko Takamura contacted me for collaboration and requested to write a paper based on my earlier papers narrating the other side of Banaras, i.e., amusement, abuses, and other sides of human nature—fitting them into psychology and mental setup, to deal with as to how that can be converted into the technology. That is why my paper published in Japanese, with English summary (2015a), is based on another book that is called *Literary Images of Banaras* (2004), which covers a lot of funny images and lifeways about Banaras. Of course, I must elaborate on it for better understanding.

Literary Images of Banaras (2004) is the only such book in any discipline taking one city as a core and considering all literary forms from poetry to prose, from novels to stories. It contains 14 such publications directly dealing with Banaras as 14 separate chapters. It is true that this book is not so much popular in terms of sales, but I feel very much honored to be its author as so many people from other disciplines like history, anthropology, English literature have praised it. Once a professor from Madurai Kamraj University came with the collection of books on Raja Rao and then put them down in my foot. Then I asked, why are you doing like this? To which he replied, "Oh my goodness, you are the only man who has used Raja Rao now to explain the cosmos of Kashi". And, he added, "this is the work that was based on his classic Serpent and the Rope (1960) because most of these scholars from literary traditions have seen that novel from their own pragmatics in literary tradition". I have seen from the content analysis where and what concerns Banaras in all such works including Raja Rao's other very famous novel The Ganga Ghat (1993), which is considered to be a very traditional and complex novel based on metaphysics. It was a tough job to do that, but I took that as a metaphor and converted, reinterpreted it, and wrote a full chapter. In that approach, I investigated the works from Mirza Ghalib, Premchand, Gosvami Tulasi Das, Shivaprasad Singh, Pankaj Mishra, Kashinath Singh, Bhishm Sahani to Abdul Bismillah. Putting all of them together was a new idea, unparalleled but least concerned at least in Indian Geography. Still, I want someone to revise, develop and add to it. But it is not easily possible for anyone who does not have in-depth love and attachment to the spirit of place. I have yet to find someone who could stand up to my expectations, benefit from my publications and try to further develop them. Some of those who had started their

¹ It is a unique publication in Japanese language; still I have not developed that in English but originally, I have written that in English but that I have not published I want to elaborate. They said look if there is no fun there is nothing like joy, abusive, then where is life. So, if you are talking about technology, at very high level there should be fun like this.

journey with me became famous professors, but they left their study on Banaras. So now I feel I'm just alone and I'll die alone!

9 Experiencing and Exposing Varanasi

There are three dimensions to explain my experiences of Varanasi. The first one is the great scholars those who are theoretically describing Varanasi based on the textual tradition and always trying to glorify by mentioning everything described in the *Kāsīkhaṇḍa* of the *Skandapurāṇa*, a religious treatise of ca CE twelfth–four-teenth centuries. Mostly they are senior persons, Brahmins, and learned scholars of Sanskrit. They close their eyes, meditate, and feel Banaras only in an imaginary or transcendental sense, and talk about the city in that way only. When you go to them to discuss the field reality, their statements would be contradictory and suffocating; at least, I can say that this is what I have experienced during last four decades.

Second type consists of the persons who are commoners. They know Banaras through their direct interaction and daily life experience. Those who are born and brought up here and have been living too, describe the city in their own perspectives of image and perception. Their perceived concept of this place Varanasi/Banaras is based on whatever ways they have been exposed to and experienced, and what they have learned from their family traditions. They have the least interest to know about the authentic theoretical construction in the textual traditions. Because of this, they often change the name of the shrines and temples and then describe the glories as if they are the only knowledgeable person to a curious fellow.

The third category is fieldwork and study-based experience in which one tries to link the Sanskrit tradition with the popular public perception. It is a very tough job because several times they do not match. It naturally leads to confusion regarding several names given to it viz., 'City of hell', 'City of jungle', 'City of mixed life'. In several novels and stories, especially by Bharatendu Harishchandra, the city has been described in this way (see Singh 2004). After all, they concluded that those who can try to tolerate, enjoy, and live in such conditions can enjoy life here. Looking from this perspective, I can say that all these sufferings should be taken as a source of enjoyment in one's life and following the same I have tried my best to experience it. Of course, several times it becomes irritating when people term a temple having a Jyotirlinga and claim that it is described in the textual tradition in the past 10,000 years without knowing any of the correct textual references and historicity. There is no way one can convince them what the texts say and what is the reality. It is the typical mixture of so many things, partially correct and mostly incorrect. If we enjoy it in this way, then I can say that all the experience will be excellent but if we go critical and stick to a particular point with a particular disciplinary methodology and approach; then one cannot help saying, "Oh my god, this is a horrible city!".

10 Overall Viewpoint on Varanasi

I think that it is quite a living and performance-oriented city, as it has been in the past, but the traditions are continued and maintained. However, people's attachment and sense of respect for it have eroded down with time. To my knowledge, it has happened especially since the mid-nineteenth century. Historical records belonging to the Mughal or even early British period attest to the fact that our city was clean, well-maintained, attractive, and wonderful. Everything is maintained by the neighborhoods themselves. This was the *mohallā* based concept. Now everything is under the Municipal Corporation. People expect everything to be done by the government through the municipal authorities and other governmental agencies. No one talks of citizen's participation and community involvement in the city affairs. And, if something of this nature is done, that is for mostly getting highlighted in the media. Should we not be doing something for the restoration of good practices of the past and make it a better livable place keeping its religious and spiritual glory in focus? Earlier there were rare cases of theft and other types of crimes, now it is a regular item of news reporting. I believe life is of dualistic nature and this dualism has gone to the two extreme situations which are blended here and that is why the name is Banaras where one can enjoy both sides of the reality as there is nothing that is always good or always bad. Life is a continuous cycle going on like a spiral wave with two wheels. I have tried to adjust to this situation in this way only.

11 Towards Summing up Life-Flow and Academic Journey

It is very difficult to answer in very precise terms. I believe that everyone born on this Earth or is created in the cosmos must die and get transformed. In the same way, I have at the edge of completing 71-years of my life (15 December 2021). Due to this old age issue, I can no longer do good drawings and typing, which frustrates and irritates me. That is why now I do not feel as easy as I felt some 5–6 years back. The other psychological fear which always haunts me is what will happen to the collection and manuscripts that I have; who is going to carry forward the tradition led by me and so on? Alas, I do not see anyone who could do so! Many times, my doctor asks me why are you under such intense stress? But it is very difficult to answer this question! It is also difficult to convey my scare for the future which keeps me under (academic) stress.

My recent most six essays (2020) are dealing with the faithscapes, ritualscapes, and sacredscapes and related experiences and comparative study of the two holyheritages cities of India, viz. Varanasi and Ayodhya, illustrated experiential and textual traditions, and taking into consideration of 17 Sustainable Development Goals (SDGs) that refer to these aspects (e.g., Kumar and Singh 2019, Singh and Kumar 2020, and Singh et al. 2020). My last, the 18th one, doctoral student, Sarvesh Kumar, has tested most of my constructs related to cultural landscapes and heritagescapes that I developed during the last three decades, illustrating Ayodhya, another holyheritage city in north India, and its results published into several papers (e.g., Kumar and Singh 2016, 2017; Kumar 2022).

Whatever I achieved in about four decades of my academic research life is going to be finished after me—I don't know? I know that every start has an end; it is the Law of Nature. That is how nature has continued from evolution to dissolution in a cyclic manner, reciprocatively. But even understanding this eternal process, it is just like running on two tracks for me—one is slow shrinkage (*sankuchan*) of my life, my knowledge, my memory; and the other is my effort to pass on whatsoever I can in a good spirit. Why think and talk only about the negativities? Believing in a sustainable future is the spirit with which I wish to embrace death one day. So, now I do not say that anything is bad!

Whatever I have done, I am very happy with that, but not fully satisfied. The only question in one's mind is what to believe in and how to experience life. Let me explain this with the help of a metaphor based on William Shakespeare's *Hamlet* (II.ii: 259), in which he says, "*There is nothing either Good or Bad, but thinking makes it so*". It is all about thought which makes the difference, all about perception and clairvoyance. Remember what famous poet Jaishankar Prasad said: "*Sukha dukkha ke madhur milan se yaha jīvan ho paripuraņ*" ('the life reached to its completeness by reciprocated meet of pleasure and suffering'). It is not possible to predict the future in realistic terms, because, in fact, nobody knows it. It is thus crucial to achieve that noble goal for making happy, friendly, and good heritagescapes (*dharohara*)—*satyam, shivam, sundaram* (the truth, the good, the beautiful). Remember, a thing is right when it tends to preserve the integrity, stability, and beauty of the site as a living organism. We may separate ourselves from the web of our heritage in the pursuit of modernity and secularism, but it would always be at the cost of our hearts and souls (Singh and Rana 2019: p. 174).

.Vision without Action is empty, Action without Vision is blind. Let the Vision be the force behind Action, and Action the energy behind Vision. This is the pilgrims' way to understand the interconnectedness between human beings and Mother Earth ('Gaia'). Seeing (*darśan*) is believing, feeling is understanding (*ātmasāta*), eternal vision is revealing (anubhūti). Pilgrimage makes the bridge starts from 'realization' (anubhava) and end to 'revelation' (anubhūti); pilgrimage is a pathway to reach a sacred place where 'nobody is treated as a special person, but there everybody is somebody, and nobody is anybody'. Through this complex web of human and nature interconnectedness, one ultimately carries its fruit (phala), and this way the spiral cycle of co-pilgrimage initiated and continued that ultimately helps us for selfrealization and self-healing. Thinking together is a new vision of start. Going together is a new start for march. Walking together is a real march for progress. Realizing together is the final progress towards revelation-enlightenment. A spiritual walk (pilgrimage) is the ladder, sacred ways are the steps, and deeper human understanding is the destination. Let us keep the spirit always awakened and pray Mother Nature ('Gaia'/Prakriti) to always direct us on the right path. This is a call for the nourishment of 'Soil, Soul and Society' where humanity meets the divinity. Let us try to understand it and *feel* it.

References

- Devereux P (1996) Re-visiting the earth: a guide to opening the healing channels between mind and nature. Fireside Books, New York
- DeVivo M (2016) Interview of Prof. Rana P. B. Singh (India), during 33-IGC Beijing on 24 August; ref. "The Book-Project for the IGU-Jubilee in 2022", 18 pp. https://www.academia.edu/28121033/468.16._Interview_of_Prof._Rana_P.B._Singh_India_ by_Prof._Michael_DeVivo_USA_during_33-IGC_Beijing_
- Kumar S (2022) Sacredscapes vis-à-vis faithscapes: cultural landscapes of Ayodhya, a Holy-Heritage City of India. In: Singh RS, Dahiya B, Singh AK, Poudel PC (eds) Practising cultural geographies: essays in honour of Rana P. B. Singh. Advances in 21st century human settlements series (ISSN: 2198–2546). Springer Nature Pte Ltd., ca, Singapore, pp 71–96
- Kumar S, Singh PB (2016) Ayodhya, the holy city of India: riverfront and a place of Indo-Korean interfacing symbolic landscapes. Sthapatyam, Indian J Archit Art 3(6):101–116.
- Kumar S, Singh RPB (2017) Rationales for inscribing "the heritage sites, Riverfront and Pilgrimages Routes of Ayodhya" in the UNESCO World Heritage List. Sthapatyam, Indian J Archit Art 3(9):51–78.
- Kumar S, Singh RPB (2019) Ayodhya: a study of urban governance and heritage inclusive development. In: Sharma VR, Chandrakanta (eds) Making cities resilient. Springer International Publisher AG, Dordrecht and New York, pp 317–338.
- Michell G, Singh RPB (eds) (2005) Banaras: the city revealed. Marg Publs., Mumbai. [Anthology of 12 popular essays, illustrated with 133 colour photographs; 152 pp]. ISBN: 81-85026-72-6; LC: 2005-318067
- Singh RPB (1980) In: Pieper J (ed) Socio-cultural space of Varanasi. Art & Archaeol Res Pap. AARP, London, UK, special publication on 'ritual space in India' 17:41–46.
- Singh RPB (2004) Cultural landscapes and the lifeworld: literary images of Banaras. Indica Books, Varanasi. Pilgrimage & Cosmology Series: 6. ISBN: 81-86569-45-6
- Singh RPB (2009a) Banaras, the heritage city of India: geography, history, and bibliography. Also, historical chart, a list of 1100 shrines and divinities and their locations, and Hindu Festivals, 2006–15. Pilgrimage and cosmology series: 8, 456 pp; 13 statistical tables, 32 figures; 1276 entries. Indica Books, Varanasi. PS: by March 2022, the entries reached 2210.
- Singh RPB (2009b) Banaras, Making of India's Heritage City. [Appendices: Hindu Festivals, 2009– 18; Historical accounts, North India and Varanasi]. Planet earth & cultural understanding series, Pub. 3. Cambridge Scholars Publishing, Newcastle upon Tyne UK
- Singh RPB (2009c) Cosmic order and cultural astronomy: sacred cities of India. Planet earth & cultural understanding, series publication no. 4. Cambridge Scholars Publishing, Newcastle upon Tyne, U.K.
- Singh RPB (June 1995) Heritage ecology and caring for the earth: a search for preserving harmony and ethical values. Natl Geogr J India 41(2):191–216.
- Singh RPB (1998) Sacred journey, sacredscape and faithscape: an experience of Panchakroshi pilgrimage, Varanasi (India). Pennsylvania Geogr. Johnstown, PA, USA, ISSN: 0553-5980) 36(1):55–91
- Singh RPB (2002/2013) Towards the pilgrimage archetype: The Panchakroshi Yatra of Banaras. Pilgrimage & cosmology series: 3. Indica Books, Varanasi
- Singh RPB (2011) Heritagescapes and cultural landscapes: an appraisal. In: Singh RPB (ed) Heritagescape & cultural landscapes. Planet earth & cultural understanding series, no. 6. Shubhi Publs., New Delhi, pp 7–56.
- Singh RPB (2015a) Waterfront cityscapes of Banaras: evolving sacredscapes, amusescapes and awfulness. In: Jinnai H, Takamura M (eds) Suitogaku: a theory for the study of water cities. Proceedings of an international symposium: 4–5 October 2014, LRDE—faculty of engineering and design, Hosei University, Tokyo, Japan. Hosei University Press, Tokyo, pp 31–46. ISBN: 978-4-588-78024-0. Published in Japanese, インドの聖地バラーナシの精神世界・ラーナーP・B・シン (訳・山田敬子), see the reference: 水都学IV水都学の方法を探って・陣内秀信

高村雅彦·基調論文法政大学出版局. Hosei University Press, 3-2-3 Kudankita, Chiyoda-ku, Tokyo 102-0073.

- Singh RPB (2015b) Hinduism: a pilgrimage without destination/Hindoeïsme: Pelgrimstocht Zonder Bestemming. In: Mettepenningen J (ed) GELOVEN—Spiritueledenkersuit de hele wereldgetuigen/BELIEVE—Spiritual Thinkers from around the World Testify; in Dutch (LannooUitgeverij—Kasteelstraat 97, 8700 Tielt, Belgium & Ten Have Publ. Amsterdam, pp 193–198.
- Singh RPB (2017) Appraising the Indian cultural landscape: envisioning ecological cosmology in the 21st century. North Eastern geographer, vol 39, no 1–2. ISSN: 0973-0915. Gauhati University, Guwahati, Assam, India, pp. 3–28.
- Singh RPB, Rana PS (2019) Visioning cultural heritage and planning: Banaras, the cultural capital of India. In: Vinayak B, Sandmeier T (eds) Routledge companion of global heritage conservation. Routledge, Taylor & Francis, Abingdon Oxen U.K., pp. 152–176.
- Singh RPB, Kumar S (2020) Sacred-heritage city development and planning in India: a study of Ayodhya. In: Thakur R, Dutt A, Pomeroy G, Thakur S (eds) Urban and regional planning and development: 20th century forms and 21st century transformations. Springer Nature Switzerland AG Dordrecht and New York, pp 301–320.
- Singh RPB, Kumar S, Rana PS (2020) UN SDGs and context of heritage cities in India: a study of Ayodhya and Varanasi. In: Sahdev S, Singh RB, Kumar M (eds) Geoecology of landscape dynamics. Advances in geographical and environmental sciences. Springer Nature, Singapore, pp 121–140.

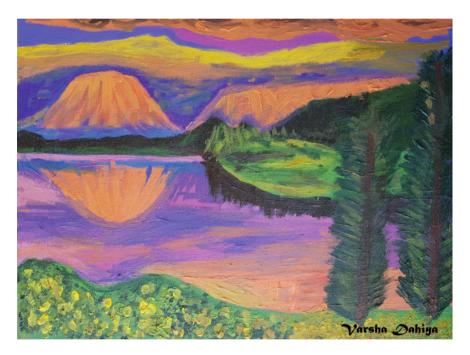


Abhisht Adityam (b. 26 October 1999), a student in M.A. (Psychology), at Banaras Hindu University, Varanasi, has an interest in nature photography, cognitive mapping, and participating in pilgrimages and heritage walks. He is a member of SHPEH—Society of Heritage planning and Environmental Health and also assists his grandfather, Rana P. B. Singh, in cultural awakening programs.



Rana P. B. Singh (b. 15 December 1950) (formerly) is Professor (Cultural Landscapes and Heritage Studies) and Head of the Department of Geography, Institute of Science, Banaras Hindu University, Varanasi; he is President of ACLA-Asian Cultural Landscape Association; President (Asia), of RWYC-Reconnecting With Your Culture (--a charter of Euro-Comm., and member UNESCO); Chief Coordinator of ICOMOS-India National Scientific Committee 'Cultural Landscapes'; Expert and Voting Member of ICOMOS ISC 'Places of Religion and Rituals' (PRERICO); presently, he is Visiting Professor of Center of South Asian Studies, Gifu Women's University, Gifu, Japan. He has field studies to study cultural landscapes and sacred capes in India (north), Japan, Sweden, Italy, Korea, and China. His publications include 43 books and anthologies, and 340 research papers. He has delivered seminars and invited lectures 79 times in 25 countries.

Landscapes



Mountain and Lake Landscape Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

Theoretical Perspectives on Landscape Perception



Prem Chhetri and Anjali Chhetri

Abstract This chapter develops a theoretical framework for conceptualising natural landscapes into categories and domains that shows their mappable properties and the spatial relations between them. The process of perceiving and experiencing landscapes is widely understood in the extant literature; however, the mappability of perceived landscapes is neither thoroughly investigated nor theorised from a multi-disciplinary perspective. This chapter argues for integrating the process of sensing, perceiving and cognising the sum total of biophysical characteristics of geographic space as a unified construct, which is referred here as landscape. Tourists' perception is used as a surrogate to represent and reflect the process of constructing landscape. It is acknowledged that landscapes are constructed through perception and cognition, notwithstanding the importance of geographic space as a milieu for guiding and stimulating the interest of observers to participate, interact and engage with its constituent components should also be recognised to help understand human behaviour in natural areas.

Keyword Landscape perception \cdot Geographic space \cdot Constructivism \cdot Tourist destination

1 Introduction

This chapter examines the construction of landscape, which essentially involves the process of perceiving and cognising objects or phenomena within a geographic space. Both perception and cognition bring discreet parts of a geographic space together into a coherent and meaningful construct. Terms such as cognition and perception are interchangeably used in the literature even though they are different but intertwined

A. Chhetri (🖾) Holmesglen Institute, Melbourne, Australia e-mail: Anjali.Chhetri@holmesglen.edu.au

© Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_4

P. Chhetri

Supply Chain and Logistics Management, College of Business, RMIT University, Melbourne, Australia e-mail: prem.chhetri@rmit.edu.au

psychological processes. Perception generally refers to the mental sensations and processes that relate to the senses and occur in the direct presence of the sensory stimuli (Mark 1999) whereas cognition extends the perception to include conscious thinking, including memory and reasoning.

Landscape is seen as a holistic, relativistic and dynamic entity (Antrop 1997). Landscape could be considered dynamic as each 'element' in a system is related and connected with other elements. Changes in any element of landscape will cause corresponding changes across the entire system. However, the perception of a landscape 'element' is relative. A simple example of a 'relational' feature is an 'edge', which is the boundary or zone of contact between two or more contrasting landscape elements. Edge environments such as a lake edge, river edge, cliff edge and the edge of forests are generally more preferable and sought-after spaces for outdoor recreation activities (Minnesota Environment Quality Board 1993).

Simple disintegration of landscapes into elements merely allows for easy, objective and mathematical measurements to be taken, rather than explains the "unexamined relationship between them" (Appleton 1975a). Despite frequent use, the concept of landscape is loosely defined and is often applied with different meanings and interpretations. The meaning of landscape is "surrounded by semantic differences, misunderstanding and controversies" (Countryside Commission for Scotland 1970:1). Some of these issues will be addressed in this chapter, which then becomes the theoretical basis for this research.

Specifically, this chapter aims to describe how the concept of landscape has evolved in the geographical sciences and explore attempts that established it as a geographic paradigm; to investigate what constitutes a landscape and identify components that compose experiential landscapes; and finally, to develop a theoretical framework to analyse the process of perceiving and experiencing landscapes. A thorough review of the extant literature in a range of disciplines is carried out. The key debates and discourses in the field of landscape studies are synthesised and presented.

This chapter is structured into five sections. It begins with the introduction of landscape by presenting various definitions. It is followed by a discussion that argues landscape as a geographic paradigm that has shaped the direction of geographical sciences for several decades. Subsequent sections identify various components of landscape and present the complexity of landscape perception, cognition and construction. The key findings of this chapter are then summarised in the concluding section.

2 What is a Landscape?

The term landscape (land, lendh—in Indo-European roots+—scap, state, condition; formerly written as landskip) was first recorded in 1598 in Dutch literature. It was borrowed as a painters' term from the Dutch during the sixteenth century. The Dutch word 'landschap' had earlier meant simply 'region or a tract of land' but had acquired the artistic sense, which is brought over into English, to mean 'a picture depicting

scenery on land'. The word for landscape in other languages, such as 'landschaft' in German or 'paysage' in French, has similar meanings. The term landscape has been used to carry multiple meanings. Some of the definitions cited most often in the literature are as follows:

- "the total character of a region" (Von Humboldt, cited in Farina 1998);
- "landscape dealt with in their totality as physical, ecological and geographical entities, integrating all natural and human (caused) patterns and processes" (Naveh 1987);
- "landscape as a heterogeneous land area composed of a cluster of interacting ecosystems that are repeated in similar form throughout" (Forman and Gordon 1986);
- "a particular configuration of topography, vegetation cover, land use and settlement patterns which delimits some coherence of natural and cultural processes and activities" (Green et al. 1996); and
- "a piece of land which we perceive comprehensively around us, without looking closely at single components and which looks familiar to us" (Haber, cited in Farina 1998).

The concept of landscape as used in different disciplines is diverse, perhaps too diverse to be usefully applied for a single-use. The scope of landscape in these definitions goes beyond the physical and visual properties to a search for some abstract and subjective meaning. The Ministry of Planning and International Cooperation, West Bank Governorates (1999) states "the landscape is not purely visual phenomena because its character relies closely on its physiography and its history". Therefore, in order to argue for a subjective definition of the term landscape, many authors, for example, Naveh (1987) and Green et al. (1996), use specific terms such as 'total character', 'aggregation' and 'coherence'.

Terms such as area, space, place and region are often used interchangeably for landscape in the literature even though these terms are conceptualised with different meanings and scales. Despite the similarity, there are some subtle (for place and landscape) and some significant (for landscape and region) differences between them. However, this does not mean that these concepts are mutually exclusive. For example, an area can be a landscape and region at the same time. The Grampians National Park is a part of a region (Tourism Product Region defined by Tourism Victoria) in Australia; but simultaneously it has some areal properties and is, therefore, an area. The area of the Grampians National Park is also ascribed with some meanings and attachments as a place for people living in it. Rose (1993) defined places as physical areas that are imparted with meaning by the people, generally infused with feelings and emotions developed due to the attachment to the land. It is also viewed as a single landscape (for example a 'Cuesta' landscape) or composed of several landscapes as perceived by people in different ways. Landscapes are also defined in terms of different themes, such as agricultural landscapes, urban landscapes, industrial landscapes, polar landscapes, or even scenic landscapes. Such themes are primarily determined on the basis of the characteristics of one or more predominant features identified for an area.

Three common interpretations of the word landscape can be identified in the literature. The first, as used by landscape ecologists, is similar to the word 'environment'. The word is taken to represent "the total spatial and visual entity of human living space..." (Naveh and Lieberman 1994: 4) or "a homogeneous segment of the environment..." (Fabos 1979:4). The second reflects the domain of physical geography where the word landscape is often used to characterise the physiographic and geomorphologic features of the earth's crust (Naveh and Leiberman 1994). The third common interpretation is related to the perceived environment. For this research, the third interpretation is the meaning intended for the following reasons.

- First, the scope of this interpretation is both generic and comprehensive and can be easily applied in a number of situations. Farina (1998) states that Haber's definition, which is similar to the third interpretation, promises a new field of research and invites further speculation to be made.
- Second, landscape from this perspective is defined as our perceived environment and therefore it is potentially robust in linking the 'processes' of perception and cognition with the 'structure' of the physical environment.
- Finally, it appears that this interpretation is similar to the meaning that is most often used in tourism and landscape perception research (Vittersø et al. 2000; Chhetri et al. 2004).

3 Landscape as Geographic Paradigm

This section explores the meaning and scope of landscape and its development as a geographic paradigm. The nature, character and scope of landscape as a geographical unit or as a paradigm have long been debated. Confusion has apparently arisen from the parallel term 'Landschaft' used in Germany for landscape that is defined as either (a) the landscape in the sense or (b) a restricted region of the earth's surface. In the first meaning, the terms Landschaft and landscape are synonymous, while in the second the equivalent English word is 'region'.

Carl Sauer is one of the pioneers who made the first systematic attempt to define the term landscape in 'The Morphology of Landscape', published in 1925. Prior to Sauer's publication, George Perkins Marsh (1864) investigated the role of the human as a morphological agent in changing landscapes. However, it was Sauer who gathered a group of scholars known as the Berkeley School to work on the theme of landscape change. Sauer (1925) considered geography to be a science that finds its entire field in the landscape. He argued for the possibility of breaking down the landscape into two separate components. The first component is the 'natural landscape' (Urlandschaft), which he defined as the original landscape of an area before the entry of human beings. The 'cultural landscape' (Kluturlandschaft) is the second component and is a landscape transformed by the action of human beings. Sauer argued that landscape evolves continually from natural to cultural over a continuum wherein nature dominates at one end and culture on the other. Strictly speaking, it is difficult if not impossible to find a landscape that is purely natural, in the sense of Sauer that it is untouched by human activities.

New debate started within the geographical sciences, wherein landscape became the focus of philosophical and methodological discussion. Sauer (1925) argued that the aim of geographic analysis is to understand connections between the geographic features in a visible landscape, rather than establishing some hidden 'causality'. Such connections are of spatial relations such as distribution, association, interactions and interdependence of features in geographic space. This advocates that "one need not seek for something beyond the phenomena; they themselves are the lore (Lehre) [laws]" (Gregory 1974: 29). In the mind of many geographers, causality is still uncomfortably close to the discredited theory of environmental determinism. This culminated in the Hartshorne-Schafer debate, arguing different perspectives of conducting geographic enquiry. Extending this debate, Hartshorne (1939: 593) presented geography "as a science concerned with the functional integration of phenomena'. Hartshorne in the 'Nature of Geography' wrote a chapter on 'Landschaft' and landscape and defined landscape as:

- a piece of area having certain characteristics which our minds, if not actually, in reality, set it off from other pieces of area;
- the view of an area as seen in perspective; and
- the sum total of those things in an area that could produce 'landscape sensation' in us if we placed ourselves in the different positions necessary to receive them.

Highlighting some of the problems associated with landscape as a geographic paradigm Hartshorne concludes "geography as a study limited to the visual properties of landscape as the landscape is merely an outward manifestation of the factors at work in an area" (Hartshorne 1939: 392). Through this, he reaffirmed his commitment to the discovery of spatial associations: "geography was a 'naïve science' that looked at things as they are actually arranged and related" (Hartshorne 1939: 549). This conceded the notion that geographic analyses provide clearly defined generic principles based on nomothetic approaches and scientific rationalism. Despite this agreement, Hartshorne advocated that the "essential task of geography remained the idiographic one of locating these principles in specific regional contexts and describing their interlocking configuration" (Hartshorne 1939: 635). This theme was described as 'areal differentiation' and looks similar to an approach of interpreting a landscape in its totality.

Schaefer (1953) disagreed with the theme of areal differentiation. In an earlier and unpublished manuscript, he defined geography as "a field inclined and compelled to produce morphological laws rather than process laws" (Schaefer, quoted in Bunge 1968: 19). The meaning of morphological laws as defined by Schaefer was 'pattern' rather than the 'process' or factors that cause such patterns. This was called the 'exceptionalist' tradition in geography.

In France, landscape was used to represent the character of an area described subjectively in the 'totality' of all geographic elements. The subjective interpretation of places remains Vidal de la Blache's (1922; 1932) contribution to human geography. He identified two main foci of geographic inquiry (1) genres de vie, as a

total environmental context and (2) the character of a place. The emphasis of this approach is to describe and illustrate 'intentionality', 'temporality', 'wholeness' and 'ecological harmony' embedded in the way biophysical and human elements are arranged and organised in an area. It seems inevitable that the ultimate metaphor to describe the interplay of 'milieu' [landscape] and 'civilisation' [humans] would not be dialectic (Buttimer, 1976). It is rather holistic. This school of thought adopted a novel approach for understanding regions and landscapes by describing embedded 'consciousness' as manifested in the form of ideas, symbols, images, memories and values. As a result, a number of regional monographs called 'paysages humains' for France were produced. The style of writing about regions in these monographs is similar to the contemporary way of writing and describing landscapes as 'text', particularly in humanistic geography (not human geography). Here each region is presumed to carry a unique identity or personality that is distinct from other regions.

Recent literature shows many studies in the subfield of humanistic geography that adopt a phenomenological approach for studying human-landscape interactions. Following the qualitative approach, Jay Appleton, an English geographer (1975b) suggested a system for classifying the components of landscape according to a simple principle of 'seeing' and 'hiding'. His theory, called 'prospect-refuge' is based on some of the primitive behaviours that living beings, including humans, exhibit in natural settings. These include hunting, escaping, shelter seeking and exploring. The theory examines characteristics of a location in a landscape in terms of its ability to provide environment that provides an unimpeded opportunity to see, while refuge gives an opportunity to hide. Extending Lorenz's phrase "to see without being seen" (cited in Appleton (1975a), Appleton introduced this theory as a frame of reference for examining the aesthetic properties of landscape.

Another contemporary geographer in the United States, Yi-Fu Tuan, worked on a similar line of thought on landscape aesthetics. In his Topophilia (love of or attachment to place), Tuan (1971) investigated the role of perceptions, attitudes and values in landscape aesthetic, claiming that aesthetic responses to an environment are generated through a process of self-awareness or self-understanding. Several researchers have investigated the spatial association of people with the environment and locality (Relph 1976, 1985; Buttimer 1976; Seamon and Mugerauer 1985 and Black et al. 1989). The direction of research within this domain was significantly influenced by the work of Heidegger (1927). The effects of modernity in isolating and alienating people from places and landscapes were investigated. Such socio-psychological processes tend to create a sense of 'placelessness' developed within the ambience of concrete and lifeless urban landscapes. Landscapes, places and spaces were viewed as processes (Massey 1993; Harvey 1993) or as nets of social relations (Massey 1993, 182). This type of research has contributed immensely to the initiation of several environmental movements. The focus of such movements was to foster the emotional and aesthetic relations of people with their environments and hence the commitment to the conservation of their environments. However, this approach failed to adequately theorise the broader social power relations, which in all sorts of ways

structure experiences of place (Rose 1993). It is also poor for developing predictive models and is entirely centred on phenomena rather than relations between phenomena. Because of its focus on the uniqueness of phenomena, this approach makes it difficult to generalise relations, so it lacks interoperability in other areas of similar characteristics.

The term landscape, as discussed in Sect. 2, is applied in a diverse range of disciplines to reflect different meanings. This multiplicity of use on the one hand enriches the concept, but at the same time makes it more vulnerable to misuse. In summary, in the current literature, particularly in the geographical sciences, two distinct styles of writing on landscape have emerged. The first style describes a land-scape as a unique phenomenon, created, constructed and consumed by people in the fulfilment of leisure, emotional and material needs. The approach applies qualitative reasoning to interpret human-landscape interactions. This style of geographical enquiry has recently been rejuvenated in human geography that employs qualitative data collection techniques, phenomenological and ethnographic approaches such as focus groups and in-depth interviews in order to understand how humans construct landscapes (Cohen 1979; Li 2000). The second group of researchers have focused on the measurable and objective quality of landscapes using their biophysical properties as surrogates of human emotions and aesthetic responses (Chhetri et al. 2008; McKercher et al. 2012; Chhetri 2015; Shoval et al. 2014).

This review showed various attempts to define and evaluate landscape value both through qualitative and quantitative approaches; despite these studies, the meaning of landscape remains ambiguous and fragmented. It is still unclear what components actually constitute a landscape. Is it composed of objective reality or a representation of the subjective world? Does a geographic enquiry decompose a landscape into several measurable components, or does it examine it as a whole? If so, is this holistic view of landscape objectively measurable or is it only comprehensible through a phenomenological interpretation? Most importantly for this research, is the human perception of and emotional response to environmental settings predictable? If so, how reliable are these predictions and how valid they are in other areas?

4 What Constitutes a Landscape?

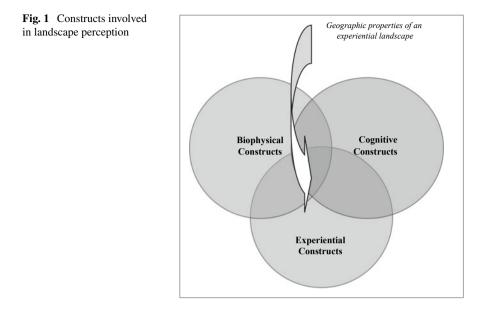
Having established that landscape is a perceivable environment, it is now essential to discuss what elements of the environment constitute it. This section will outline some of the thoughts that examine the compositional elements of landscapes. Many studies (Shuttleworth 1980a; Hetherington et al. 1993) realise the multi-dimensional and multi-sensory nature of landscape perception. Such perception is composed of objective as well as subjective elements of human-landscape interactions. However, it is a matter of debate whether subjective–objective realities are dichotomous or supplement each other. In fact, much research considers them as inseparable and integral parts of landscape perception, despite their tendency for disintegrating landscapes into their constituent components. There is a fundamental theoretical divergence

of opinion over the question of whether landscapes have an intrinsic or 'objective' beauty, which may be in some ways measurable or comparable, or whether beauty is a value that can only be subjectively attributed to an area or specific landscape (Shuttleworth 1980b).

Landscapes are not merely constructed through the process of reading or receiving signals transmitted from physical stimuli, but also developed by comprehending relations, association and interactions. They may result from the spatial or functional interactions between two or more features situated in a geographic space as perceived by an observer. Reading of these signals may require a relatively high level of information processing that may involve human cognition. For example, the complexity of a scene in a landscape may be one such 'message' that needs a cognitive interpretation of the arrangement and association of contextual information in an environmental setting. Landscapes have several geographic characteristics such as geographic locations, objects and features that exist in these locations and relations they develop with one and another. For example, a forest landscape consists of several measurable features occupying specific geographic locations. These objects can be a part of the landform characteristics (slope, aspect, elevation) or the land cover characteristics (trees, shrub, grasses) or even part of a constructed environment.

Kliske and Kearsley (1993) classified human experiences and perception of landscapes into four general categories. These include physiographic characteristics, the presence of specific physical features, cognitive variables and viewer interest. Kaplan et al. (1989) evaluated landscape preference by comparing the effectiveness of four domains of environmental attributes. Two of these domains were 'physical attributes' and 'land cover types' that were derived from direct measurements of the physical environment. The other two domains, 'informational variables' and 'perception-based variables' were based on empirical research. Following the search for describing landscapes, Gobster and Chenoweth (1989) identified three 'descriptor types' namely physical, artistic and psychological descriptors. Physical descriptors measure the external dimensions of landscape, while artistic descriptors describe formal or abstract and compositional dimensions of landscapes. Unity, variety, vividness, texture, contrast and harmony are some of the examples of artistic descriptors. Psychological descriptors describe the psychological impacts that landscapes have on an observer.

Drawing on this literature, it is proposed that there is a large amount of information embedded in landscapes that for ease of understanding can be simplified into three constructs: biophysical, cognitive and experiential constructs (Fig. 1). The area common to these constructs indicates geographic or mappable properties of experiential landscapes as it contains both physical and cognitive constructs of landscape perception. This area provides a milieu for interactions wherein activities and practices occur within the limit of a biophysical environment.



4.1 Biophysical Constructs

Much quantitative research has used biophysical characteristics of landscape as its theoretical base as they contain physical and measurable properties. Different studies have used different terminology for dividing or decomposing landscapes to attain identical objectives. Concepts such as components, elements, themes, dimensions and predictors are used interchangeably. Biophysical constructs develop in the presence of some kind of physical stimuli. Croft (1975) stated that the geographic environment could be perceived and experienced at three different levels. The first level comprises the 'landscape skeleton' as represented through macro relief features (measured by terrain types), relative relief and presence of water (measured by drainage density). A second level can be added using the permanent components of the environment that capture the variations of macro forms at smaller scales. It represents the overall variations in the surface texture using the irregularity of two-dimensional outlines and three-dimensional forms, or the singularities of isolated features. Finally, there are the transitory components with regard to the characteristics of water bodies and surface textures (Crofts 1975).

Another method that identifies different levels was proposed by the Land Use Consultants (1971) in order to assess the quality of the landscape in Scotland. The study conducted by the Land Use Consultants identified two series: relief classes (high, normal and low relief per unit of area) and landform types (valley, lowland, plateau, edge and coast). Litton (1968) identified six types of 'landform landscapes' namely lowland, hill country, bold hills, mountains, plateau uplands and low uplands. Hammitt et al. (1994) developed a seven variable regression model that explained 76

percent of the variation in scenic preference using nine forest and pastoral landscape patterns and themes for scenic vistas in Colorado. The landscape themes used in Hammitt's study are stream/river, one-ridged, rolling plateau, valley development, farm valley, ridge and valley, one-ridged and not maintained scenes. The regression model consists of three positive variables: (i) linear perimeter of ridgeline, (ii) area of moving water and (iii) area of rolling plateau and three negative predictors: (i) area of sky, (ii) area of largest ridge (negative) and (iii) obstructing vegetation (negative) squared. These variables are found to be able to predict landscape perception and preference.

Leopold and Marchand (1968) has introduced a new method called 'uniqueness ratio' that measures the uniqueness of landscape features. This technique identifies two broad components: valley character and river character captured along scenes in a riverscape. Valley character is measured by comparing the width of the valley floor against the height of adjacent mountains, while river character is measured in the width, depth, size, presence and frequency of rapids. The proposed method, however, seems to be a site/feature specific evaluation that measures landscape quality in a narrow strip along a river valley. Therefore, it might be less effective when applied over a wider geographic area.

Shafer et al. (1969) developed a predictive model that includes six variables in the regression equation from an initially incorporated 26 biophysical variables. These variables included vegetation, non-vegetation, sky and water, all derived for different distance zones from photographs. This was executed using a grid overlaid on photographs of scenes. Brush and Shafer (1975) extended the method to measure perimeter and area of certain landscape features. The perimeter and area occupied by vegetation (trees and shrubs), non-vegetation (exposed ground, snowfields and grasses) and water (streams, lakes and waterfalls) were then measured and compared with the preference ranking of the scenes.

Kaplan et al. (1989) divided landscape into two measurable domains of physical attributes and land cover types. They identified landform elements as slope or relief (the prominence of the landforms), edge contrast (contrast between adjacent landforms) and spatial diversity (variety of spaces created by landforms). Land cover types focus on broad patterns across a large area and were measured in 'naturalism' (absence of direct human influence), 'compatibility' (fit between adjacent land cover types), 'height contrast' (height variation among adjacent elements) and 'variety' (diversity of land cover types or patterns within a type) using the way geographic features are arranged and organised in landscape. These types were calculated from photographs of landscapes.

Hydrological elements include water bodies/rivers/glacier valleys, or the features associated with these. Presence of water in landscapes develops a favourable impact on visitor behaviour and experiences (Hammitt et al. 1994; Bishop and Hulse 1994; Wherrett 1998; Zube et al. 1974). A network of streams in a landscape may not only develop numerous visually attractive geomorphological features but also generate variety and diversity that may be of interest to visitors. Resultant landforms such as types of valleys, waterfalls, rapids, oxbow lakes and meanders are not only potential recreational features but are also visually scenic and attractive. Such water features

attract visitors for various recreational activities, for example, rafting, swimming and boating or are attractions in their own right, such as waterfalls (Hudson 1998). According to Litton et al. (1968) the presence of water in a vivid or distinctive form, for example, a waterfall or a rapid increases the aesthetic value of landscape and generates a state of appreciation among visitors. In the landscape assessment procedure, a hydrological component acts as a focal point of attraction, particularly in photographs and can be regarded as a singularity (Croft 1975). Other visual indicators of landscape appraisal related to the surface water characteristics are discharge, flow variability and velocity.

Ephemeral elements such as temperature, fog and brightness can add detail to the landscape, which may make a large difference to response patterns by visitors. Some of these elements can be realistically represented using the virtual reality environment, which provides tools that can control the intensity of such elements in a digital landscape to help examine human responses to varying situations and contexts. For example, the intensity of fog or brightness can be changed according to the seasons. This makes the assessment far more reliable when compared to those assessed through photographs.

4.2 Cognitive Constructs

Cognitive constructs refer to the beliefs and knowledge developed about a landscape. The process involves some sort of evaluation that is most often filtered through preferences, beliefs, learning and socio-cultural backgrounds. The cognitive construct is predicated on the notion that perception involves the process of extracting information from the environment. Perceptual processes interpret the way a landscape or its various elements are spatially and temporally organised, arranged and related. This construct is theoretically similar to Kaplan and Kaplan's (1989) concept of 'information variables' but also has similarities with the 'psychological model' of Daniel and Vining (1983) and 'cognitive model' of Zube (1984a, 1984b) and Pitt and Zube (1987). Daniel and Vining (1983) defined the psychological model as "feelings and perception of the viewer" while Zube and Pitt (1981) referred cognitively to "psychological dimensions manifested in or attached to the landscape". Kaplan and Kaplan (1989) identified four predictor variables using two major categories of 'understanding' and 'exploration'. Using these two categories of understanding and exploration, four new predictors were identified. These predictors are 'coherence' and 'legibility' for understanding and 'complexity' and 'mystery' for exploration as shown in Table 1.

People read and interpret meanings transmitted from a particular arrangement and organisation of landscape elements within a geographic space. For example, a visual arrangement of landscape elements that allows a partial view of a scene may attract people to explore further. Such partial information introduces the component of 'mystery' in the perceived scene whereby the observer intends to acquire more and more information by exploring further. There are other cognitively defined variables

Immediate	Understanding	Exploration
	Coherence	Complexity
	Orderly, "hand together", repeated elements, regions	Richness, intricate, number of different elements
Inferred	Legibility	Mystery
	Finding one's way there and back, distinctiveness	Promises of new but related information

 Table 1
 Listing of landscape information variables

Source Kaplan et al. (1989)

such as drama, smoothness, unity, variety and harmony that are often examined using the biophysical properties of a scene in a photograph. For example, certain biophysical settings such as the presence of a waterfall or a sharp drop-off from the cliff or escarpment can be dramatic as they create sudden and striking emotional responses from observers than those which are more monotonous and repetitive. Perceptions of such arrangement of landscape elements require some form of interpretation and thus involve cognitive processing. Cognitive construction requires information processing that scans through filtering processes stored in the form of liking or disliking structures. Differences in such structures develop due to differences in learning, sociodemographic, techno-economic and personality characteristics (Lyons 1993; Jackson 1987).

4.3 Experiential Constructs

Experiential constructions develop from the emotions or feelings elicited within the context of a geographic space, generally by experiencing its biophysical and ephemeral components. Emotions and feelings are the keys to understanding human relationships with landscape (Russell and Snodgrass 1987). Under this construct, it is assumed that experiences that were encountered in a landscape are inseparable from the context. These constructions are the inner and immediate manifestations of human feelings elicited through interaction and immersion within a geographic space. Proshonsky et al. (1983) stated that people develop both cognitive and affective responses to environments. Some support the idea that settings have both cognitive and affective images (Lynch 1960; Russell and Pratt 1980). Even the preferences as defined by Ulrich (1986), are aesthetic responses or like-dislike effects in association with feelings and neurophysiological activities which are controlled by the nervous system. Zube et al. (1974) stated that most studies in the experiential paradigm are unstructured phenomenological explorations. Such studies (for example Lewis et al. 1973; Appleton 1975b; Relph 1976; Tuan 1977) were predominantly conducted by geographers (ibid) that tend to explore human interaction and the resultant experiences with landscapes. Appleton (1975b: 58) states that the experiential approach to

landscape "tend to be 'process-oriented' towards (hu)man's experience of the environment rather than 'object-oriented' towards the composition of landscape itself". In order to understand human interactions and aesthetic relations with the visible landscape, it is essential to make experience a central theme of landscape perception research.

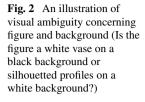
5 Perception and Construction of Landscapes in Tourist Destinations

Landscape, in general, can be defined as the perceivable environment. It represents a geographic space as perceived by people living in that area as well as those visiting the area. This section of the chapter will explore the construction of experiential landscapes in nature-based tourist destinations. It demonstrates how people perceive and construct landscapes using graphical and pictorial images. This is followed by a brief discussion on how natural landscapes evolve, mature and are abandoned as tourist destinations and finally concludes with a review of recent theories and models in the area related to experiential landscapes.

5.1 Visual Perception of Natural Landscapes

Perception of landscape is more than a mechanical process of detecting signals. Visitors receive several separate visual images per second and the information from these images is then filtered through the cognitive process. The information captured by the retina in the eye comprises solely the distribution of luminance or distribution that has discontinuities and homogeneities. It results from the differences in the reflections of photons to the eye from surfaces and objects in space. Visual system processing compresses an exorbitant amount of data derived from a visual scene by removing certain spatial frequency information prior to transmitting information to the brain. It is a process through which sensed information is organised, categorised and recognised into meaningful constructs. This process filters out redundant detail from viewed landscapes and retains information, which attracts attention and directionality. The information gathered in the retina is further stored and filtered in the short and long-term memory in the brain. The brain controls and directs the movement of the eye. The eye-brain system is not a passive receptor but is an active and exploratory tool (Petch 1994). The eye searches for information that the brain directs it to search for.

The brain recognises objects sensed by the eye but constructed and understood by the brain. The construction process is similar to the tenets propounded by the Gestalt theorists including Kohler (1947), Koffka (1935) and Wertheimer (1959). The foundation of Gestalt theory was the principle of 'grouping'. Grouping refers





to a process of structuring or interpreting characteristics of stimuli captured in a visual field. Such stimuli can be graphic such as an image or a scene of a landscape. The information in a scene can be grouped using the principles of an organisation such as 'proximity', 'similarity', 'closure' and 'simplicity'. Closure is a condition where items are grouped together to make a complete entity while in simplicity items are organised into simple figure according to symmetry, regularity and smoothness. The Gestalt explanation of the figure-ground relationship (Fig. 2) is an example that shows how objects are arranged, grouped and differentiated into meaningful cognitive constructs.

Figure 2 shows how people have different perceptions of the same image when viewed from different backgrounds. Such an image presents ambiguity to the observer. This image illustrates that when a figure is identified, the contours seem to belong to it and therefore it appears to become part of the foreground. This 'recognition' of an object in three dimensions in an object-centred world, according to Marr's computational approach (1982) to visual perception, substantiates this relationship of cognitive processing where the object gives an impression that it is 'out there'.

Marr's computational approach to visual perception reduces the complex relationships into four different stages, which are as follows.

5.1.1 The Image

The image is considered as the initial point of seeing. The image is a spatial distribution of intensity or illuminance across the retina that is reflected due to surface variations.



Fig. 3 Construction of primal sketch using an edge detection technique

5.1.2 The Primal Sketch

In this stage of vision, the raw information of intensity values captured as visual images starts to develop certain explicit forms. The 'primal sketch' is a symbolic representation wherein primitives or tokens such as edges, bars, blobs, terminations, edge segments, virtual lines, groups, curvilinear organisation and boundaries are present in two-dimensional form. Edge intensity and textual boundaries as well as a geometrical and spatial distribution of intensity changes are detected, graded and organised in the form of surface patterns. Figure 3 shows an attempt to draw primal sketches from a scene of a landscape using the edge detection technique.

5.1.3 The 2.5 Dimensional Sketch

According to Marr's theory (1982), the 2.5 dimensional sketch adds context to the primal sketch by adding depth, surface orientation, colour and texture of surfaces and is considered as a 'viewer-centred representation'. The pattern that emerges in a visual image is then organised with reference to the viewer and is not linked to a stable external environment.

5.1.4 The 3-dimensional Model Representation

At this stage of vision, the perceiver has developed a model of the real external landscape wherein the shapes and orientation become explicit as tokens of threedimensional objects in a view-independent coordinate system (Gorden 1997). This is an 'objected-centred representation' as it recognises objects in three-dimensional shapes reflected in volumetric primitives captured from the 2.5-D sketch (Yuille and Ullman 1990).

Visual properties of natural landscapes can be detected using Marr's (1982) computational approach. This describes the perception of visual information as being

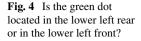
processed in sequential stages from the image depicting the spatial array of intensities captured in the retinal image to the 3-D model representation of reality. "The outcome of these stages is a mental [cognitive] model of the object suspended in object-oriented space to yield an impression that the object is 'out there' (Hendee 1997:153). However, current theories do not distinguish the mechanism of detection, interpretation and recognition of visual images as discrete processes. Instead, they consider these mechanisms as a single interactive process.

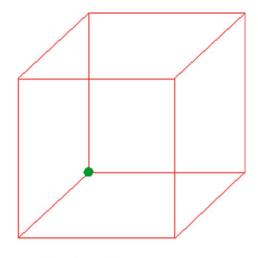
Humans can't see all there is to see. Perception, therefore, is unavoidably selective. Selectivity involves foregrounding, backgrounding and rearranging features in space and time or, in other words, organisation of information. Objects, events or situations are 'sized up' in relation to our 'frames of reference' and these influence how perception is structured and organised. At this stage, it is useful to note that theories about perception tend to emphasise the role of either sensory data or knowledge in the process. Some theorists adopt a data-driven or 'bottom-up' approach, according to which perception is 'direct'. Here visual data is immediately structured in the optical array prior to any selectivity on the part of the perceiver (Gibson 1976 is the key proponent of 'direct perception'). Others (e.g. Gregory 1974) adopt a 'constructivist' or 'top-down' approach emphasising the importance of prior knowledge and hypotheses.

Gibson's (1979) theory of 'information pick-up' opposes most traditional theories of cognition that assume a dominant role of past experience in perception. This theory suggests that perception depends entirely upon information in the 'stimulus array' rather than sensations that are influenced by cognition. Gibson suggests that the environment consists of 'affordances' (such as terrain, water, vegetation, etc.), which provide the clues necessary for perception. Furthermore, the 'ambient array' includes invariants such as shadows, texture, colour, convergence, symmetry and layout that determine what is perceived. Gibson believes that perception is a direct consequence of the properties of the environment and does not involve any form of sensory processing. In other words, it is the terrain and land cover characteristics that determine perception, not sensory processing per se.

The essence of the constructivist theorists (such as Kelley 1955; Gregory 1974; Neisser 1976) is that perception of the environment is essentially indirect. The perceiver adds some information to the incoming stimulus before the final perceptual response is attained. In other words, sensory inputs alone are insufficient to specify the real-world phenomena. Sensory inputs combined with supplemented knowledge result in the construction of hypotheses whereby objects and events in the world are understood. Gregory (1974) believes that sensory input from a single physical object can induce two different precepts and therefore perception could be unstable and ambiguous. For example, if one stares at Fig. 4, its orientation may suddenly change and therefore perception cannot be tied to a stimulus. As a result, a green dot in the figure can be seen as located in the lower left rear as well as in the lower left front.

Neisser (1976) combined the approach of Gregory and Gibson into one platform of cognitive schema that uses inferences and sensory information perceived by an observer (Raper 2000). Humans gather bits of information that collectively make sense and then place them in memory in some form of structure, typically referred to





Necker Cube

as schemata (schema in the singular; plural 'schemata' or 'schemas'). Neisser (1976: 54) defined a schema as "that portion of the entire perceptual cycle, which is internal to the perceiver, modifiable by experience and somehow specific to what is being perceived. The schema accepts the information as it becomes available at sensory surfaces and is changed by that information: it directs movements and exploratory activities that make more information available, by which it is further modified". A schema is therefore a kind of mental template or framework, which we use to make sense of things. Schemata help us to explore beyond the sensed information by making assumptions about what is usual in similar contexts. They enable us, for instance, to make inferences about things, which are currently not directly visible.

Neisser stated that the cognitive structures crucial for vision are the 'anticipatory schemas' that prepare the perceiver to accept certain kinds of information rather than others and thus control the activity of looking. Because we can see only what we know how to look for, it is these schemas (together with other information actually available) that determine what will be perceived (Neisser 1976: 20). According to Johnson (1987: 29), "a schema consists of a small number of parts and relations, by virtue of which it can indefinitely structure many perceptions, images and events". Schemata however are defined in different ways by several authors but typically they are organisational structures in which information is systematically stored to memory. Purcell (1992) suggested that information in landscapes is stored and categorised in some form of structure around categories or more complex mental representation. Such mental structures, similar to schemata, are the result of long-term exposure to the regularities in the environment.

The organisation of information operates at different levels, from abstract propositional structures to more formalised concrete images (Johnson 1987:29). Mark and Frank (1996) found that some of the image-schemas identified by Johnson (1987) have spatial primitives. These include container, blockage, path, surface, link, near far, contact, core-periphery and scale. Johnson (1987:125) states, "given a centre and a periphery we will experience the near-far schema as stretching out along our perceptual or conceptual perspective. What is considered near will depend upon the context, but, once that is established, a scale is defined for determining relative nearness to the centre". Some of this spatial image-schemas are used in developing GIS functions, particularly for understanding topological relations such as containment, proximity and adjacency in order to illustrate interactions and associations that objects and people create with other objects in geographic spaces.

6 Landscape Mappability: Building Ontologies

This section builds an ontological framework of natural landscapes by defining a set of concepts and categories or domains that shows their properties and the relations between them. So far, this chapter has discussed the theoretical basis of understanding and representing geographic space. Since geographic space contains measurable properties, it is, therefore, possible to use its contents as one measure for mapping and modelling landscapes. It is generally accepted that landscapes are our perceivable environments rather than merely visible environments. Despite this, researchers recognise that the physical components still remain an inseparable part of the perceived environment. Comprehension of human meanings, values and attachments associated with landscapes may be incomplete if we exclude the physical stimuli from landscape perception. Several authors (Hull and Harvey 1989; Hull and Stewart 1994; Baldwin et al. 1994; Miller et al. 1995; DeLucio and Múgica 1994) have used the biophysical properties of the environment as surrogate measures for human emotions and cognitive features in order to build predictive models of human preferences and behaviour.

Research in experientialist cognition (for example Lakoff and Johnson 1980; Talmy 1983; Lakoof 1987) showed that human experiences in a geographic space are, to a great extent, grounded in the bodily and sensory-motor nature of humans. The theoretical base of Berlyne's (1960, 1971) arousal theory and Wohwill's (1976) work on stimulus configurations also support stimulus-based responses to landscapes. Tuan (1964: 4) also states that the essence of geographic representations of human experiences in the natural environment lies in the spatial and mappable manifestations of the '[hu]man-land' synergies.

People's experiences in nature-based tourist destinations differ spatially partly in response to variations in the landscape components and characteristics (Chhetri and Arrowsmith 2008). Therefore, experiential landscapes may contain information associated with geographic position as well as geographic content. Beck (1964: 18) states that "the physical and interpersonal properties of the environment are distributed in space and the personal environment is shaped by the configuration of these properties". Appleton (1975a, b) describes a similar approach called 'habitat theory' that defines the effects of the environment on human behaviour. According to the theory, aesthetic satisfaction and the experiences derived in the contemplation of nature, stem from the spontaneous perception of landscape features or from their shape, colour, spatial arrangement and other visible attributes. These features act as 'sign-stimuli' that are indicative of environmental conditions favourable or not favourable for visitations or habitation.

Durkheim (1895) was convinced that as long as the subjective world, including ideas, beliefs and representations, remained outside the objective world, the scientific investigation of human-environment interactions would be impossible. This was further articulated in Rules of Sociological Method (Durkheim 1895) where he states social phenomena were to be considered as 'things' (comme les choses), distributed along a spectrum where the spatial or morphological structure of society sits at one end to its rules, beliefs and emotions or superstructure at the other end (cited in Gregory 1978: 80). In other words, the intention of Durkheim's ideas was to indicate that phenomena are not simply creations of the will of the observer. The phenomena also share the properties of physical objects, as they exist independently of the observation of them (Giddens 1972: 31). Supporting the context-based interpretation of human behaviour and experiences, Husserl (1970) argued that "any exploration of the possibility of cognition must start by recognising that cognitive experiences are 'object-constituting events', although they also possess an intentional structure through which objects are made to mean something to us" (cited in Gregory 1978: 129).

People normally understand and interpret geographic space in terms of cognitive definitions such as hills, ridges, valleys, gullies and canyons. They often use terms to comprehend and communicate spatial information (for example, direction and position of other features). It requires a semantic, based on topological relations, for instance 'to the left of the ridge of Mt William' or 'across the canyon' or 'drive along the scenic route to the Skeleton Creek'. Such expressions do not take physical entities into account, but rather use topological relationships to represent spatial relations between features. Information, therefore, is spatially indexed to our understanding of spatial reality. This understanding is attached to our bodies...so that some of our spatial concepts, like here or there, to the right, down east, are egocentric (Smith and Mark 1996).

Geographic objects could be cognitive and could have intellectual components. For example, catchments, bays, the North Pole and countries are geographic objects and are parts of the physical world but at the same time constructed by human cognition and action (Smith and Mark 1996). In representing experiential landscapes in GIS, it is imperative to define whether an experiential landscape is an object, an event, or a process. Do experiential landscapes have a substance of their own? Or, in other words, do they have physically measurable properties? Experiential landscapes are the perceived environment and therefore they are the interface between the perceptual and resultant emotional responses and the physical world.

From the Aristotelian perspective, it may be reasonable to consider experiential landscapes as 'accidents'. They would therefore have no substance of their own

and are attached to other substances. The translation of experiential landscapes into mappable entities depends on other properties of other substances such as cultural or material creation of human actions and practices (for example, buildings, roads and social or family relations) or biophysical characteristics of geographic space. Hence, it is reasonable to believe that experiences are attributes of geographic space, similar to other attributes of geographic space. For example, ruggedness or enclosure in landscapes is a construct that may be measured from the properties of terrain surfaces including elevation, aspect and slope. Highly rugged topography may be challenging or even frustrating for most hikers. Ruggedness is an abstract concept but can be positively correlated with measured effects of 'challenge'.

Chhetri et al. (2004) analysed hiking experiences in natural areas and identified the prevalence of two driving factors: "geographic-factor" or G-factor and the "psychological-factor" or P-factor. They considered that there are some extrinsic feelings, which are directly influenced by the external physical environment. Therefore, using the measurable properties of terrain surface it should be possible to map the probability of having certain types of landscape experiences. Using the biophysical properties of geographic space as surrogate measures, this chapter argues for the mappability of human experiences, particularly those experiences that are exhibited under the influence of natural processes and settings. This proposition was further tested whereby the key dimensions of experiential landscapes such as desirability, challenge and enclosure, were mapped and predicted across a wider geographic space using GIS (See Chhetri 2015 for these mapped outputs) and later validated through data collected in GPS receivers.

7 Concluding Remarks

This chapter formalised and developed a theoretical framework for landscape research from a geographic perspective. Key theories, concepts and models that underlie the processes of perceiving, experiencing and cognising objects or phenomenon in a geographic space were reviewed. From these theories and models, a comprehensive framework of the tourist-environment system was developed. The review showed that the landscape as a unit of study has remained the central theme of geographical research for several decades. This chapter also identified two major benefits associated with landscape as a unit of study. Firstly, it provides a philosophical and methodological base for understanding human interactions with the environment thereby integrating processes and forms and secondly, it offers a framework for capturing human emotions, thoughts, beliefs and values (processes) through recording human responses to the observable and measurable biophysical entities/phenomena (structures) of the environment.

The genesis and evolution of landscape as a geographic paradigm was discussed in Sects. 2 and 3 so that a rational theoretical research foundation could be set up. An upfront discussion of the meaning and content of landscape as a research theme was undertaken and the utility of landscape as a unit of study for this research was examined. It was concluded that the landscape is our environment that is sensed and perceived by the eye but constructed and understood by the brain. It is more than just a visible environment. Information compiled in the human–environment interaction is received through multiple senses and processed simultaneously by the eye-brain system. Perception of landscapes, therefore, requires active participation rather than passive acceptance. Such participation reduces an exorbitant amount of redundant, ambiguous, unstructured information to organised and modular structures called schemata. These schemata through which information is organised and structured, determine what is and is not perceived in an environment. The organising and structuring are further filtered through the preferences, beliefs, values and learning capability of individuals. Geographic space however provides surroundings for movements and exploration and compels the observer to participate and interact with the constituent components.

In Sects. 4 and 5, constructs that underlie the nature and characteristics of touristenvironment interactions were formulated. The result of such interactions is decomposed landscapes (as perceived by people), which are constructed using the biophysical, experiential and cognitive dimensions. These constructs involved in the experiential landscapes were chosen for further investigation because of the explicitness in terms of human feelings and emotions. In Sect. 5, the essence of this argument is to highlight the importance of mapping experiential landscapes. Given the presumption that experiences reflect the characteristics of tourist-environment interactions, a system composed of both biophysical and experiential elements were identified and processes (relationships) influencing this system were defined. The theoretical framework developed in this chapter added a new perspective to understanding tourist-environment interactions in natural areas. This neo-geographical perspective which is centred on individuals will help understand these complex interactions but could be further refined and enhanced by generating maps using biophysical properties of natural landscapes or by tracking or monitoring people's interactions to represent human perception and in situ experiences.

References

- Antrop M (1997) The concept of traditional landscapes as a base for landscape evaluation and planning: the example of Flanders Region. Landsc Urban Plan 38(2):105–117. https://doi.org/ 10.1016/S0169-2046(97)00027-3
- Appleton J (1975a) The experience of the Landscapes. John Wiley, New York
- Appleton J (1975b) Landscape evaluation: the theoretical vacuum. Trans Inst Br Geogr 66:120–123. https://www.jstor.org/stable/621625
- Baldwin J, Fisher P, Wood J, Langford M (1994) Modelling environmental cognition of the view with GIS. In: Third International Conference/Workshop on Integrating GIS and Environmental Modelling, Santa Fe, New Mexico

Berlyne DE (1960) Conflict, arousal and curiosity. McGraw-Hill, New York, NY

Berlyne DE (1971) Aesthetics and psychobiology. Appleton-Century-Crofts, New York, NY

- Bishop IDM, Hulse DW (1994) Prediction of scenic beauty using mapped data and geographic information systems. Landsc Urban Plan 30(2):59–70. https://doi.org/10.1016/0169-2046(94)900 67-1
- Black DW, Kunze D, Pickles J (1989) Commonplaces: essays on the nature of place. University Press of America, New York
- Brush RO, Shafer EL (1975) Application of a landscape-preference model to land management. In: Zube et al (eds) Landscape assessment: values, perceptions and resources. Halstead Press, Pennsylvania, pp168–181
- Bunge W (1968) Fred schaefer and the science of geography. Harvard Papers in Theoretical Geography
- Buttimer A (1976) Grasping the dynamism of lifeworld. Ann Assoc Am Geogr 66(2):277–292. https://doi.org/10.1111/j.1467-8306.1976.tb01090.x
- Chhetri P (2015) A GIS methodology for modelling hiking experiences in the Grampians National Park. Tour Geogr 17(5):795–814. https://doi.org/10.1080/14616688.2015.1083609
- Chhetri P, Arrowsmith C (2008) GIS-based modelling of recreational potential in nature-based tourist destinations. Tour Geogr 10(2):235–259. https://doi.org/10.1080/14616680802000089
- Chhetri P, Arrowsmith C, Jackson M (2004) Determining hiking experiences in nature-based tourist destinations. Tour Manage 25(1):31–43. https://doi.org/10.1016/s0261-5177(03)00057-8
- Cohen E (1979) Rethinking the sociology of tourism. Ann Tour Res 6:403–428. https://doi.org/10. 1177/004728758001800368
- Countryside Commission for Scotland (1970) A planning classification of scottish landscape resources. Countryside Commission. Perth, Scotland
- Croft (1975) The landscape component approach to landscape evaluation. Trans Inst Br Geogr 6(4):124–129. https://www.jstor.org/stable/4297775
- Daniel TC, Vining J (1983) Methodological issues in the assessment of landscape quality. In: Altman I, Wohwill J (eds) Human behaviour and the environment, vol 6. Plenum, New York, Press, pp 39–83
- DeLucio J, Múgica M (1994) Landscape preferences and behaviour of visitors to Spanish national parks. Landsc Urban Plan 29:145–160. https://doi.org/10.1016/0169-2046(94)90024-8
- Durkheim E (1895) The rules of sociological methods. University of Chicago Press, Chicago
- Fabos J (1979) Planning and landscape evaluation. Landsc Res 4(2):4–10. https://doi.org/10.1080/ 01426397908705898
- Farina A (1998) Principles and methods in landscape ecology. London Chapman and Hall, UK Forman RT, Godron M (1986) Landscape ecology. Wiley and Sons, New York
- Gibson JJ (1979) The ecological approach to visual perception. Houghton Mifflin, Boston
- Giddens A (1972) Emile durkheim: selected writings. Cambridge University Press, Cambridge
- Gobster PH, Chenoweth RE (1989) The dimensions of aesthetic preferences: a quantitative analysis. J Environ Manage 29(1):267–270
- Gorden IE (1997) Theories of visual perception, 2nd edn. Wiley & Sons Ltd., West Sussex, England Green BH, Simmons, EA, Woltier I (1996) Landscape conservation. Some steps towards developing
- a new conservation dimension. A draft report of the IUCN-CESP landscape Conservation Working Group. Department of Agriculture, Horticulture and Environment, Wye College, Ashford, Kent, UK
- Gregory D (1974) Ideology, Science and Human Geography. Hutchinson & Co., Ltd., London
- Gregory D (1978) Ideology, science and human geography. Hutchinson & Co. Ltd., London
- Hammitt WE, Patterson ME, Noe FP (1994) Identifying and predicting visual preference of Southern Appalachian Forest recreation vistas. Landsc Urban Plan 29(2–3):171–183. https://doi.org/10. 1016/0169-2046(94)90026-4
- Harvey D (1993) From space to place and back again: reflections of the conditions of postmodernity. In: Bird J, Curtis B, Putnam T, Robertson G, Tickner L (eds) Mapping the future: local cultures, global change. Routledge, London, pp 3–29
- Hartshorne R (1939) The nature of geography: a critical survey of current thought in the light of past. Association of American Geographers, Lancaster, Penn

- Heidegger M (1927) Sein und Zeit. Jahrbuch der Phänomenologie und Phänomenologische Forschung. Tübingen, Max Niemeyer. Being and Time, Oxford, Blackwell (1967)
- Hendee WR (1997) Cognitive interpretation of visual signals. In: Hendee et al (eds) The perception of visual information, Springer-Verlag New York, Inc. New York, pp 150–175
- Hetherington J, Daniel TC, Brown TC (1993) Is motion more important than it sounds? The medium of presentation in environmental research. J Environ Psychol 13(4):283–291. https://doi.org/10. 1016/S0272-4944(05)80251-8
- Hudson B (1998) Waterfalls—resources for tourism. Ann Tour Res 25(4):958–973. https://doi.org/ 10.1016/S0160-7383(98)00043-7
- Hull BR, Harvey A (1989) Explaining the emotion people experience in suburban parks. Environ Behav 21(4):323–345. https://doi.org/10.1177/0013916589213005
- Hull RB, Stewart WP (1994) The landscape encountered and experienced while hiking. Environ Behav 27:404–426. https://doi.org/10.1177/0013916595273007
- Husserl E (1970) The crisis of European sciences and transcendental phenomenology. Evanston, Northwestern University Press
- Jackson LE (1987) Outdoor recreation participation and views on resource development and preservation. Leis Sci 9(4):235–250. https://doi.org/10.1080/01490408709512165
- Johnson M (1987) The body in the mind: the bodily basis of meaning, imagination and reason. University of Chicago Press, Chicago
- Kaplan R, Kaplan S, Brown T (1989) Environmental preference: a comparison of four domains of predictors. Environ Dev 21(5):509–530. https://doi.org/10.1177/0013916589215001
- Kelley GH (1955) A theory of personality. Norton, New York, W.W
- Kliske AD, Kearsley GW (1993) Mapping multiple perceptions of wilderness in Southern New Zealand. Appl Geogr 13:381–392. https://doi.org/10.1016/0143-6228(93)90001-H
- Koffka K (1935) Principles of gestalt psychology. Harcourt Brace, New York
- Kohler W (1947) Gestalt psychology: an introduction to modern concepts in psychology. Liveright Publishing Corporation, New York
- Land Use Consultants (1971) A planning classification of Scottish landscape resources. Countryside Commission for Scotland, Occasional Paper, 17, vol 2
- Land Conservation Council of Victoria (1976) Report on the South-Western Area, District 2. Melbourne, Land Conservation Council of Victoria
- Lakoff G, Johnson M (1980) Metaphor we live by. University of Chicago Press, Chicago
- Leopold LB, Marchand MO (1968) On the quantitative inventory of the riverscape. Water Resour Res 4:709–717. https://doi.org/10.1029/WR004i004p00709
- Lewis PF, Lowenthal, D, Yi-Fu, T (1973) Visual blight in America. Association of American Geographers. Research paper 23, Washington DC
- Li Y (2000) Geographical consciousness and tourism experience. Ann Tour Res 27(4):863–883. https://doi.org/10.1016/S0160-7383(99)00112-7
- Litton, RB (1968) Forest landscape description and inventories: a basis for land planning and design. U.S.D.A. Forest Service Research Paper, PSW-49, Pacific Southwest Forest and Range Experiment Station, Berkeley, California
- Lynch K (1960) The image of the city. The MIT Press, Massachusetts, Cambridge Mass
- Lyons E (1993) Demographic correlates of landscape preferences. Environ Dev 15(4):487–511. https://doi.org/10.1177/0013916583154005
- Mark DM, Frank AU (1996) Experiential and formal models of geographic space. Environ Plan B 23:3–24. https://doi.org/10.1068/b230003
- Mark DM (1999) Spatial representation: a cognitive view. In: Longley PA et al (eds) Geographic information systems, vol 1, Principles and Technical issues, 2nd edn. Wiley & Sons, Inc, New York
- Marr D (1982) Vision: a computational investigation into the human representation and processing of visual information. Freeman, San Francisco
- Marsh GP (1864) Man and nature or physical geography as modified by human action. Belknan Press of Harvard University, Cambridge, MA

- Massey D (1993) Power-geometry and a progressive sense of place. In: Bird J, Curtis B, Putnam T, Robertson G, Tickner L (eds) Mapping the future: local cultures, global change. Routledge, London, pp 59–69
- McKercher B, Shoval N, Ng E, Birenboim A (2012) First and repeat visitor behaviour: GPS tracking and GIS analysis in Hong Kong. Tour Geogr 14(1):147–161. https://doi.org/10.1080/14616688. 2011.598542
- Miller DR (1995) Categorisation of terrain views. In: Fisher P (ed) Innovations in GIS 2. Selected Papers from the Second National Conference on GIS Research UK. Taylor & Francis Ltd. London, pp 215–221
- Minnesota Environment Quality Board (1993) Recreational and aesthetic resources, prepared by Jäkko Poyry consulting, Inc. Minnesota. [Online] http://www.iic.state.mn.us/download/geis/rec/rec.pdf accessed on 15 April 2001
- Naveh Z (1987) Biocybernetic and thermodynamic perspective of landscape functions and landuse patterns. Landscape Ecol 1(2):75–83
- Naveh, Z, Lieberman A (1994) Landscape ecology. In: Theory and application, 2nd edn. Springer
- Neisser U (1976) Cognition and reality: principles and implications of cognitive psychology. W H Freeman and Company, San Francisco
- Petch J (1994) Epistemological aspects of visualization. In: Hearnshaw HM, Unwin DJ (eds) Visualization in geographical information systems. Wiley & Sons, Chichester, pp 212–219
- Pitt DG, Zube EH (1987) Management of natural environments. In: Stokols P, Altman D (eds) Handbook of environmental psychology. Wiley and Sons, New York, pp 1008–1042
- Proshonsky HM, Fabian AKK, R, (1983) Place- identity: physical world socialization of the self. J Environ Psychol 3:57–83. https://doi.org/10.1016/S0272-4944(83)80021-8
- Purcell AT (1992) Abstract and specific physical attributes and the experience of landscape. J Environ Manage 34:159–177. https://doi.org/10.1016/S0301-4797(05)80149-5
- Raper J (2000) Multidimensional geographic information science. Taylor and Francis, London
- Relph E (1976) Place and placelessness. Pion, London
- Relph E (1985) Geographical experiences and being-in-the-world: the phenomenological origins of geography. In: Seamon D, Mugerauer R (eds) Dwelling, place and environment: towards a phenomenology of person and world. Martinus Nijhoff, Dordrecht, pp 15–31. Harve
- Rose G (1993) Feminism and geography: the limits of geographical knowledge. University of Minnesota Press, Minneapolis
- Russell JA, Snodgras D (1987) Emotion and the environment. In: Stokols D, Altman I (eds) Handbook of environmental psychology, vol 1. Wiley & Sons, New York, pp 245–280
- Russell JA, Pratt G (1980) A description of the effective quality attributed to environments. J Pers Soc Psychol 38(2):311–322. https://doi.org/10.1037/0022-3514.38.2.311
- Sauer C (1925) The morphology of landscape. University of California in publications in Geography, University of California, Berkeley, vol 2, pp 19–53
- Seamon D, Mugerauer R (1985) Dwelling, place and environment: towards a phenomenology of person and world. Martinus Nijhoff, Dordrecht
- Schaefer FK (1953) Exceptionalism in geography: a methodology examination. Ann Assoc Am Geogr 43:226–249. https://doi.org/10.1080/00045605309352114
- Shafer EL, Hamilton JF, Schmidt EA (1969) Natural landscape preferences: a predictive model. J Leis Res 1:1–19. https://doi.org/10.1080/00222216.1969.11969706
- Shuttleworth S (1980) The use of photographs as an environmental presentation medium in landscape studies. J Environ Manage 11:61–76
- Shuttleworth S (1980) The evaluation of landscape quality. Landsc Res 5(1):14–20. https://doi.org/ 10.1080/01426397908705925
- Smith B, Mark D (1996) Ontology and geographic kinds. In: Proceedings, International Symposium on Spatial Data Handling, Vancouver, Canada
- Talmy L (1983) How language structures space. In Pick H, Acredolo L (eds) Spatial organisation: theory, research and application. Plenum Press, New York, pp 225–282

- Tuan Y (1964) Attitudes toward environment: themes and approaches. In: Lowenthal D (ed) Environmental perception and behaviour. Research Paper No 109. The University of Chicago, pp 4–17
- Tuan Y (1971) Geography, phenomenology and the study of human geography. Can Geogr 15:181–192. https://doi.org/10.1111/j.1541-0064.1971.tb00156.x
- Tuan Y (1977) Space and place: the perspective of experience. University of Minnesota Press, Minneapolis, MN
- Vittersø J et al (2000) Tourism experiences and attractions. Ann Tour Res 27(2):432–450. https:// doi.org/10.1016/S0160-7383(99)00087-0
- Wohlmill JF (1976) Environmental aesthetics: the environment as a source of affect. In: Altman I, Wohlwill JF (eds) Human behaviour and the environment: advances in theory and research, vol 1. Plenum Press, New York. https://doi.org/10.1007/978-1-4684-2550-5_2
- Ulrich RS (1986) Human responses to vegetation and landscapes. Landsc Urban Plan 13:29–44. https://doi.org/10.1016/0169-2046(86)90005-8
- Vidal de La Blache P (1922) Principes de géographie humaine. Colin, Paris
- Vidal de La Blache P (1932) Les genres de vie dans la géographie humaine. Annales De Géographie 20:193–212. https://doi.org/10.3406/rga.1960.1857
- Wertheimer M (1959) Productive thinking, Enlarged. Harper & Row, New York
- Wherrett JR (1998) Managing scenic resources: modelling natural landscape preferences. https://juk uri.luke.fi/bitstream/handle/10024/529320/metla-2015102210541.pdf?sequence=1. Accessed 2 Apr 2001
- Yuille AL, Ullman S (1990) Computational theories of low-level vision. In: Osherson et al (eds) Visual cognition and action, vol 2. London, The MIT Press
- Zube EH (1984) Themes in landscape assessment theory. Landsc J 3:104-110
- Zube EH, Pitt DG (1981) Cross-cultural perceptions of scenic and heritage landscapes. Landsc Plan 8:69–87. https://doi.org/10.1016/0304-3924(81)90041-1
- Zube EH, Pitt DG, Anderson TW (1974) Perception and measurement of scenic resources in the southern connecticut river valley, Publication No. R-74–1, Amherst, MA: Institute for Man and Environment, University of Massachusetts. Australian Bureau of Statistics (2001): Census of Population and Housing: Basic Community Profile. https://experts.umn.edu/en/publications/per ception-and-measurement-of-scenic-resources-in-the-southern-co. Accessed 23 June 2005
- Zube EH (1984a) Environmental evaluation: perception and public policy. Cambridge University Press



Prem Chhetri is a Professor and Director, Global Supply Chain and Logistics Research Priority Area, College of Business, RMIT University, Melbourne. He is Professor of logistics and geographic systems and Director of Global Supply Chain and Logistics Research Priority Area at RMIT University in Australia. He was a Deputy Head of School for Industry Engagement at RMIT and the Program Director for Open Universities Australia. Previously he was Research Fellow and Lecturer in the University of Queensland and Spatial Information Analyst with the Brimbank City Council in Melbourne.Prem obtained a Ph.D. in Geospatial Science from RMIT University in 2003. He holds a Master of Philosophy from Jawaharlal Nehru University and a Master Degree from Delhi School of Economics, Delhi University-the two most prestigious institutions in India. Prem is known internationally for the research in spatially-integrated modelling and analytics. His recent research focused on port logistics, climate change, urban modelling, tourism potential mapping, emergency

response, skills and training, and the application of GIS and GPS in transport, infrastructure and logistics planning.Prem has received a number of Australian Research Council and federal and state government grants to study quality of urban life, spatial labour markets, urban fire and emergency planning, logistics clusters, innovation and growth, and climate change and port logistics. He has published over a hundred refereed papers and numerous research reports for the government and industry. His publications include: Transportation Research Part E, The International Journal of Management Science, OMEGA, International Journal of Physical Distribution and Logistics Management, Maritime Policy and Management, Papers in Regional Science, Computer, Environment and Urban Systems, Tourism Geographies, Tourism Management, Transactions in GIS and Journal of Cleaner Production.Prem has received the RMIT University 2013 Research Excellence Award, NIGLAS Chinese Academy of Sciences Fellowship 2013, the RMIT 2009 Learning and Teaching Award, The Pope John Paul Fellowship, and the University Grant Commission Fellowship, Government of India. He was a member in the international panel of experts on the 7th RTD Framework Program of the European Commission and a contributor to two key research projects WEATHER (Weather Extremes-Impacts on Transport Systems and Hazards for European Regions); MOWE-IT (Management of Weather Extremes on Transport Systems) and NoveLog.



Dr. Anjali Chhetri is a Lecturer, Bachelor of Hospitality Management, Holmesglen Institute. She is a tourism analyst. She received her B.A (Honours) degree in History from Delhi University in 1993. In 2015 she was award with the Doctor of Philosophy from RMIT University, Australia. She has written numerous papers including Tourism Analysis and co-authored a report for EU funded project on Passenger Rights in Australia. She has 15 years of management experience in a range of industry, including Telstra and NAB. She is been teaching since 2013 at RMIT University and William Angliss Institute at the HEd since 2013. The subject she taught are Research Methods (Lecturer), Economics and Global Impacts on Tourism Activity, Management & Communication, Destination and Attractions, Human Resource Management, Organizational Behaviour (Lecturer) and Business and Global in business context (postgraduate course, RMIT). Her current research interests include destination management, tourism planning, and employment and labour market issues.

Sacredscapes vis-à-vis Faithscapes: Cultural Landscapes of Ayodhya, a Holy-Heritage City of India



Sarvesh Kumar

Abstract The city of Ayodhya represents an example of holy-heritage city of India, recording variety of cultural landscapes and multi-cultural religious sites in the form of sacred landscapes. The sacredscapes are known as *tirtha* in classical Hindu literature, and in general is translated as a sacred or a holy place. For the sacredscape history matters, it concerned for the sacred (spiritual) ecology; thus, the messages conveyed by sacredscapes are obscure and functions in a variety of festive and religious functions. Ayodhya possesses a good mass of multi-cultural sacredscapes associated with the devotees consisting of Hindus, Jains, Sikhs, Buddhists, and even Muslims, and Christians, including even recent addition of Korean culture. These are recorded and described in ethnological context, while taking various niches and frames developed and attested by Professor Rana P. B. Singh in his studies of holy-heritage cities of north India.

Keywords Sacredscapes · Faithscape · Multi-cultural religious sites · Sacred space · Manifested space

1 Introduction

Making attributional distinction between space and place, and appraising Eliadean idea of sacrality, Singh (2011, p. 9) opines that "place exposes particular and distinctive locale and environs which carries meaningfulness in all its attributes performances. This sacred landscape combines the absoluteness of space, relativeness of places and comprehensiveness of landscape; thus, altogether result in a 'wholeness' carrying the inherent and imposed spirit of 'holiness', which is to be called '*sacred-scapes*'. In Sanskrit literature and Hindu tradition this is called '*divya kshetra*', or *tirtha* (a pious/divine territory)". The literal sense of the word *tirtha* is translated as a sacred or a holy place. Among the attributes identifying the intimate relationship

S. Kumar (🖂)

Department of Geography, D.D.U. Gorakhpur University, Station Road, Gorakhpur, UP 273009, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_5

between human faith and landscape, the sacrosanct expression attitudes to particular sites lead to form sacred place/sacredscapes-possessing highly manifested and sacral-symbolic attributes (Singh 1995, pp. 96–104). Although the degree of sacredness and values attached are highly variable, yet sacred space implies distinct attachment to the place, a type of emotional bond (Norton 1989, p. 127). Singh narrates that, "Through pilgrimage and deep feelings/faith man can transform the materialistic identity into a cosmic integrity at a place. Such a place becomes holy where 'wholeness' is preserved'—a type of 'spatial manifestation'. Ultimately the overall wholeness of landscape creates a *faithscape* that encompasses sacred place, sacred time, sacred meanings, sacred rituals and embodies both symbolic and tangible psyche elements in an attempt to realise man's identity in the cosmos-a form of psychocognitive manifestation" (Singh 2011, p. 29). Thus, these two sides of gamut create network and functional complexity of the sacrosanct environment, functioning as a sacred-symbolic geography grounded on an evolutionary cosmology that constantly passing through the process of succession-sustenance-sustainability (cf. Singh and Kumar 2020a, p. 106). This is appreciated in the field of environmental psychology, crediting to Singh (cf. Devereux 1996, pp. 136–137).

In broad sense, sacred places are categorised into three groups: (a) *human crafted buildings*, like temples associated with the uniqueness of a specific locality that has become a specified place for religious reasons; (b) *archetypal-symbolic space* (cosmologically ordered space) where metaphysically a larger whole is condensed into a limited space, and maintains a sense of order, and thus displays a harmonious relationship between human life and the cosmos; that is how by condensing the cosmos into a smaller sphere, its laws can be observed and experienced more clearly and human lives can be placed more accurately; and (c) *a place in nature* that bears no special making, except for a well-marked footpath, and that is more commonly found among indigenous people, and without special making is known for mystic beauty of sacred architecture drawn in terms of some mythic forces imbued in the cultural traditions (Swan 1990, pp. 64–66).

Sacredscape is a special place, perceived as an individual piece in the infinitely varied mosaic of the Earth where the "spirit of place" (*genius loci*) plays an important role in making it distinct from the surroundings—a mosaic of variety of patterns, relationships, interactions, meanings—between human being and divine realm (Singh 2009b, p. 242). The specific communicating character of sacredscape is particularity or distinctiveness of place called *mysterium tremendum*. Sacredscape as an art form conveys the message for better understanding of the harmonic relationship between mankind and nature-spirit. In fact, "it seeks a meaning which is not explicit in the ordinary forms. It rests upon the belief that there is something close to the essence, to beauty and truth in the landscape" (Meinig 1979, p. 46). It also possesses a meaning that links people as individual souls and psyches to an infinite world (*ananta*).

Sacredscape presents beauty in life and landscape. Pilgrims who undergo the experience of the sublime can enjoy the aesthetics and intrinsic values possessed there—a sense of revelation. Sacredscape provides the historical context where humans experience what the sacred world was like in the past as discovered and manifested by our forefathers. Science cannot teach us all we need to know—the values entrusted upon the sacredscapes human conscience. This is more the issue of faith by belief and deep involvement. Says Rolston (1994, p. 137) "Such places provide a lingering echo of what we once were, of a way we once passed. Without these memories we cannot know who and where we are." In Indian theology, this expressed as "*Ko aham, kut ayatah*" (who am I, from where I come); this need for understanding the cosmos, its interrelatedness with human beings (cf. Singh 2016, p. 124).

2 Ayodhya: The Geographical Personality

The city of Ayodhya (Urban Agglomeration, including merger of Faizabad) is situated on 26° 47′ North and 26° 80′ North Latitude and 82° 12′ East and 82° 20′ East Longitude in the state of Uttar Pradesh, on the right bank of the River Sarayu (Ghaghara, a tributary of the Ganga) in North India and serves as the headquarters of the district of Ayodhya. Earlier Ayodhya was a part of Faizabad City and the same named district; however, on 11th November 2018, the present government through assembly concurrence restored the ancient historical name "Ayodhya", and now Faizabad is a western part of the city and name of the main railway station. The state capital Lucknow lies at a distance of 130 km west and the important city Varanasi at 221 km in southeast, Gorakhpur at 145 km in east, and Allahabad lies at distance of 167 km in south. The city of Ayodhya is spread over 69.76 km² but will be expanded to 872.81 km² under the ongoing Master Plan for 2031. The present population of the twin city (2021) is 873,373 persons and estimated to cross a million by 2031. The twin cities are divided by a pilgrimage route of Panchakroshi Yatra, and the entire sacred territory is demarcated by the Chaudahkroshi Yatra (see Fig. 1).

The city of Ayodhya records a variety of shrines/temples and associated built structures belonging to Hindus, Muslims, Jains, Sikhs, Buddhists, Christians (Table 1) and other associated sects (Kumar 2018). All these shrines and temples are integral part of various traditional festivities, celebrations and auxiliary activities since the ancient past; thus, they are the nexus of intangible heritage.

3 Hindu Sacredscapes

The left-side riverfront of the Sarayu (Ghaghara) River at Ayodhya consists of a number of stairways used as bathing places (*ghats*) and are counted as sacred sites by Hindu adherents. Some of them are *Pakka*, having flights of stone steps leading down to the river, while others are *Kaccha*, just natural silty banks. Svargadvara Ghat is the most famous *ghat*, where the pilgrims get holy dip as a part of purificatory rituals together with other rituals. Other important *ghats* are situated on the eastern and the western side of the bank (Kumar and Singh 2017a, pp. 22–25). Every *ghat* records their own narration of historical, mythological, religious folk tales and spiritual importance based on ancient folklores and belief systems. The riverfront

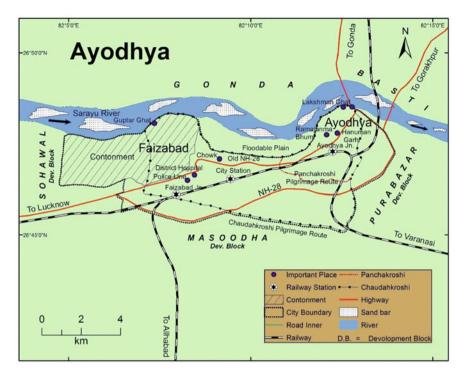


Fig. 1 Ayodhya and environs: location (*Source* author's doctoral dissertation, Kumar 2018, p. 14, Fig. 1, reproduced with permission)

also consists of sacred spots consisting of monastic temples, ashrams, *chhavani* (encampment of monks), etc. Every year on the auspicious occasion of circumambulatory journey *Parikrama*, pilgrims perform the first sacred bathing, followed with pilgrimage to the Panchakroshi and Chaudahakroshi *yatras* from various *ghats* along the Sarayu River.

Basudeo Ghat and Rama Ghat

Basudeo Ghat and Rama Ghat both are the oldest *ghats* along the Sarayu riverfront of Ayodhya (see Figs. 2 and 3). Basudeo Ghat was famous for bathing and rituals, while Rama Ghat is associated with cremation rites. Till 1960s, the Sarayu River was flowing through this *ghat*, but after 1960s, when the river has shifted towards northwards, resultantly Basudeo Ghat and Rama Ghat become dried parts of the bank, and later after the development of road highway and railways, they lost their identity as bathing place but never lost the historical, mythological and sacral identities. In ancient mythology, Basudeo Ghat has been referred to as the site of the first incarnation of Vishnu in form of the "Fish" (*matsya*), who saved the seeds of progeny (see der Veer 1988, p. 10). Of course, now it is dried up, but still pilgrims visit the sacred sites and perform the rituals symbolically in memory of the ancient tale.

Tabl	e I Ayodhya: Religious Properties—	Temples a	and Shrines, 2018
Se	Sacred shrines	ca. no	Notable temple/shrine
1	Hindu Deities	(1161)	
	(a) Vishnu	7	Chandrahari, Dharmahari, Chakrahari
	(b) Rama	1035	Kanak Bhavan, Ramajamabhumi, Lakshman Kila, Treta ke Thakur
	(c) Krishna	3	Radhe Kishna, Radhe Krishna
	(d) Shiva (and family)	18	Nageshvarnath, Kshireshvarnath
	(e) Devis (goddess)	11	Badi Devkali, Annapurna Devi, Chhoti Devkali, Pateshvari, Jalpa Devi, Shitala
	(f) Auxiliary deities	5	Hanumangarhi, Hanuman, Shani Dev
	(g) Chhavani (a sect monastery)	3	Mani Ramadas (Chhoti) Chhavani, Raghunath ji ki Chhavani, Badi Chhavani
	(h) Akhada (Dashnami monastery)	10	Digambar, Juna, Nirmohi, Udasin, Mahanirvani, Niranjani, Santoshi
	(i) Caste-temple	62	Nishad Temple, Kori Temple
	(j) Folk deities	7	Bramha Baba, Sati Mata, Mari Mata
2	Jain temple	5	Adinatha, Ajitnath, Abhinandannath, Sumatinath, Anantanath
3	Buddhist Vihar	2	Vishakha Buddha, Panchashil Buddha
4	Christians (Church)	3	Saint Mary, Saint Andrew, Central Methodist
5	Sikhs (Gurudvaras)	7	Nishan Sahib, Thara Sahib, Brahmakunda, Dukhanivaran
6	Muslims	(186)	
	(a) Mosque (masjid)	103	Jama Tatshah, Washika, Khajur, Sunahari, Hasan Raza Khan, Terhi Bazar, Alamganj, Saiyyedwada
	(b) Mazar (dargah)	80	Hazrat Noah, Hazrat Shish, Badi Bua
	(c) Karbala	3	Haqbari Sharif Karbala, Shia Karbala

Table 1 Ayodhya: Religious Properties—Temples and Shrines, 2018

Source Kumar 2018, p. 136

Svaragadvara Ghat and Naya Ghat

Svaragadvara ("Door to the Heaven") Ghat spreads between the Sahastradhara and the temple of Treta Ke Thakur and is narrated as the initial *tirtha* established on the bank of Sarayu River, and that is how it is called as the first *ghat*. According to the ancient tales, this site was established by Vishnu before his seventh incarnation as Rama. The British archaeologist Alexander Cunningham describes Svaragadvara as the place where the body of Rama was burned (see Führer 1891, p. 297). Its sanctity and glory continued since ancient-past up to the twelfth century. It is believed that people who die or would be cremated at this place will be relieved from the transmigration and be settled in the heavens. During the 1960s, the bed of the Sarayu

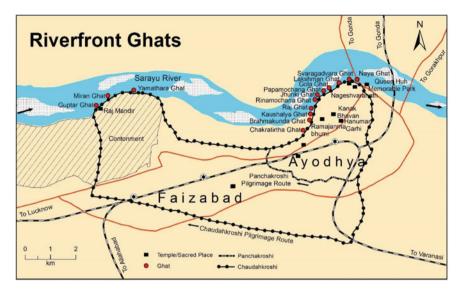


Fig. 2 Riverfront ghats of Ayodhya (*Source* author's doctoral dissertation, Kumar 2018, p. 137, Fig. 4.1, reproduced with permission)

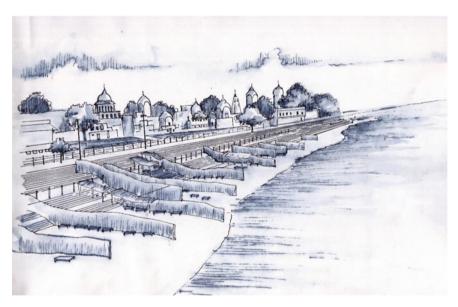


Fig. 3 The riverfront ghats of Ayodhya (sketch with courtesy by Krishna Kumar) (*Source* author's doctoral dissertation, Kumar 2018, p. 138, Fig. 4.2, reproduced with permission)

River had shifted northwards, leaving a way the Svaragadvara and other *ghats*. In 1960, the new *ghat* (Naya Ghat) and also a bridge was built about 150 m north in front of the old Svaragadvara Ghat and a water pool (Ram Ki Paidi) with a beautiful flower garden that was opened in between these ghats. In the vicinity of Svaragadvara Ghat, the notable temples include Chandrahari, Gangamahal, Sarayu, Nageshvarnath and Chaturbhuji. At these *ghats*, the pilgrims perform variety of rituals, including holy bath for purification, meditation and donation of alms that emerged to form a distinct ritualscapes (cf. Singh et al. 2020b). Special rituals include offertory of a cow, money, clothes and food (cooked and raw) too.

Sahastradhara or Lakshmankila Ghat

Sahastradhara Ghat lies 150 m towards northeast from Papamochana Ghat, and possesses a series of bathing places. It is related to the story of Lakshmana (younger brother of Lord Rama), whose temple is Lakshmana Mandir that contains a new statue of Lakshmana exists there; on auspicious occasions, it is adorned with hoods of Shesha (divine serpent). West of this temple on the high riverbank is the temple called Lakshmana Qila (fort) which was built in the British period (Sitaram 1933, p. 19); this temple is the main centre of the Rasika branch of Rama-Bhakti ("devotion to Rama").

Papamochana Ghat

Papamochana Ghat lies 182 m south from Sahastradhara Ghat. The *ghat* is renowned for its power to absorb all sorts of sins. According to mythology, a great sinner named Narahari, a Brahmin, coming from the state of Panchala who owing to a bath at this *ghat* was absolved of all his sins and reached Vishnu's realm of paradise. In the British period, Papamochana Ghat functioned as a ferry point, and a grain market was held here, hence the modern name Gola Ghat. Papamochana Ghat was repaired when the Sarayu Road Bridge was built in CE 1960. Adjacent to them is the Papamochana temple in which a statue of Rama is installed.

Jhunki Ghat

This *ghat* is situated in between the Papamochana and Rinmochana *ghats*. It has been the meditation place of the number of monks (Sadhus), where they spent their whole life in the devotion of Lord Rama. After passage of time, developed a fortress-like monastic compound called Siyarama Kila that possesses a temple of Rama–Sita too. There also exists a small temple of Shiva situated on the Jhunki Ghat.

Rinamochana Ghat

Rinmochana Ghat, possessing ruins of an old Shiva temple, lies 350 m southwest from the Papamochana Ghat. It is generally believed that by bathing at this *ghat*, one would be freed from three kind of acquired debts (*rina*), viz. the *Rishis* (study of the *Vedas*), *Devas* (sacrifices) and *Pitras* (procreation). The concept of getting release from scared debts reaches back to the Vedic times when it was thought to be especially applicable to Brahmins (Ensink 1981, p. 108). This *ghat* attracts various

groups of the monks and spiritual persons. Of course, generally, the pilgrims come on this *ghat* for performing the first purificatory bathing ritual.

Raj Ghat

Raj Ghat is a newly built structure that lies 200 m south from Rinamochana Ghat. This *ghat* possessed a beautiful Raj Garden and a statue of Jain Tirthankara Rishabhadeva, situated in the inner side of the garden. The local government has constructed a protective levee to protect this *ghat* from the flood. A newly built Sita–Rama temple is the main attraction here.

Kaikeyi Ghat, Kaushalya Ghat and Sumitra Ghat

These three interlinked *ghats* lie 300 m south from Raj Ghat. The name of these three ghats strike on the name of the three queens of Dasharatha, the father of Lord Rama. Every day, a number of local persons and some devout Hindus come here for bathing. Presently, these ghats are not used for bathing because the riverbed shifted towards the northeast and *ghats*' area is converted into farming land.

Chakratirtha Ghat

Chakratirtha Ghat lying 600 m from the Kaikeyi, Kaushalya and Sumitra *ghats* is in the way of Panchakroshi and Chaudahakroshi circumambulation path. The temple of Vishnu (Vishnuhari) at this *ghat* is one of the oldest temples in Ayodhya. The *ghat* has been losing its importance as the ritual bathing place because the bed of Sarayu River shifted towards the northeast from the *ghat*. The water of the river reaches to this site only in the rainy season, and presently, there is no trace of *ghat*, hence the Chakratirtha Ghat has disappeared from the image of the pilgrims.

3.1 Holy Tank (Kunda) and Holy Pond (Sar)

In the Hindu religious tradition, holy tank is called *kunda* and holy pond is called *sar* or *sarovara*; they have played an important role in Hindus' purificatory rituals and also served as essential source of water. Here, some *kundas* are in natural forms without any human construction, but some *Kundas* consist of steps on all the sides. Most of the *Kundas* exist along the Panchakroshi circumambulation path, but some are situated in the inner part of the city (Fig. 4).

Dantadhavan Kunda

The Dantadhavan Kunda was used for brushing the teeth and washing the face in morning time. According to the Chinese pilgrim Faxian (Fa-hsien), [flourished CE 399–414], a tree was found a little south of the city, which had grown out of a willow sticks used by the Buddha to clean his teeth, but some jealous Brahmins cut down the tree. In the period of sixteenth and seventeenth century, when ancient Ramaite sites were being found all over the place such a local legend might have prompted the rediscovery of the spot where Rama was believed to have brushed his teeth. Thus, the

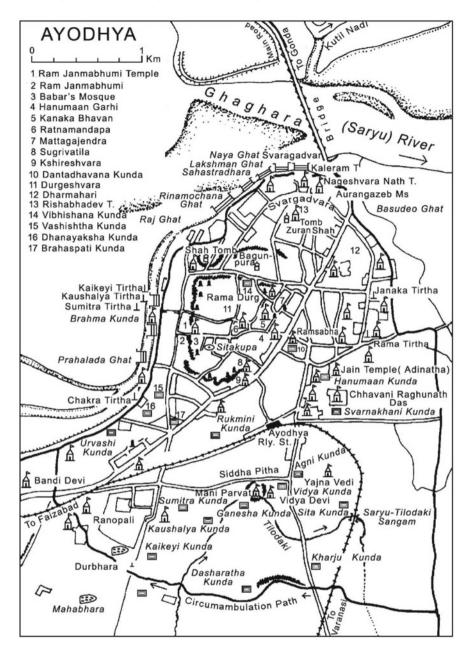


Fig. 4 Ayodhya: Temples and Kunds (*Source* author's doctoral dissertation, Kumar 2018, p. 141, Fig. 4.3, reproduced with permission)

Danatadhavan Kunda sprang into existence (Bakker 1986 II, p. 111). This Kunda is a well-maintained tank with steps on all the sites. The tank when seen from the east to the west with the red marble complex of Hanumangarhi rising in the background affords a scenic view. According to a local priest, Buddhist pilgrims still come to that place from countries like Myanmar and Thailand, and apart from on special occasions, only a few Hindus pilgrims seem to bath in the tank.

Vibhishan Kunda

The holy tank dedicated to Vibhishan represents the holy spot of Vibhishan as guardian of the Ramadurga. He was the younger brother of demon king Ravana (of Lanka) and supported Lord Rama in the Great War with Ravana. The tank is in good condition and well maintained with steps on all sides. It is situated on the north side of Ramakot (fort of Rama). After 1958, the Kunda is looked after by the local priest.

Vashishtha Kunda

This Kunda situated on the western side of the main road near Tedi Bazaar is dedicated to the Sage Vashishtha who was the Royal Priest of Dasharatha (father of Lord Rama). The Kunda is in a good condition and well maintained, having built steps on all the sides and maintained by the people attached to the nearby Vashishtha temple.

Brahma Kunda

Brahma Kunda situated in between Chakratirtha Ghat and Raj Ghat is associated with mythology of the attainment of Brahminhood by Vishvamitra. It is believed that bathing in this Kunda is more merit-giving on the occasion of eclipses. The Brahma Kunda Ghat, a site attached to the Brahma Kunda, was visited by Guru Nanak Dev (CE 1469–1539), the progenitor of Sikhism, on his journey from Haridvar to Puri (Johar 1976, p. 46, 132). The site is nowadays in the hands of Sikh community who have built a Gurudvara nearby.

Dhanayaksha Kunda

The Dhanayaksha Kunda lies 500 m north from the Chakratirtha Ghat and 300 m south from Vashishtha Kunda. The Kunda is connected with Yakshas (vegetal divinities) and Kubera (god of wealth), [both are assumed to be primordial deities popular before Hindus settles], thus this place is naturally associated with the acquisition of wealth (Bakker 1986 II, p. 249). It is believed that this Kunda bestows beauty and fragrance. A mosque stands beside the road on an old site of Kunda, and on the northeast side of the Kunda exists a small shrine of *yaksini* containing the usual stones and fragments and a new idol of Durga (goddess) riding on a lion.

Brihaspati Kunda

The Brihaspati Kunda situated on the Tedi Bazaar crossing road on the left side of Faizabad–Ayodhya main road. This Kunda is especially recommended to those who suffer from an inauspicious horoscope; a bath in this pond or a more elaborate *shanti* ("peace") rite on the day of Brihaspativar (Thursday), the most prominent

day associated to planet Jupiter of which the auspicious astrological position is of crucial importance for the horoscope, prevents suffering from unlucky star (Bakker 1986 II, pp. 235–236). According to mythology at this place, Brihaspati once dwelt and performed a sacrifice. Brihaspati is responsible for prosperity and adversity on account of astrological condition. The pacification rite to be performed at this place that involves, first, taking a vow (*sankalpa*), followed with a bath in the tank, donation of golden [polished] image of Brihaspati (while standing in the water) and worship (offering of yellow cloths), and finally *homa* sacrifice accompanied by recitation of formulas suited to appease the planetary deity.

Svarnakhani Kunda

This Kunda is situated behind Badi Chhavani. A story related to this Kunda refers to the legend of Raghu, an ancestor of Rama, and his conquest of the world (*Vishvajit*) celebration and donation of his property to the Brahmins. According to mythology, to please king Raghu, Kubera (deity of money) created a gold-mine (*svarnakhani*) in this area, which later became a holy place (Bakker 1986 II, p. 182). The present structure at the Kunda was largely built by saint Raghunath Das (CE 1817–1883) and his followers. The Svarnakhani Kunda predates the foundation of Chhavani. Once, it was a well-maintained quadrangular tank with steps on each side and a small neglected Devi temple located in the northeast corner containing remarkable idols; however, presently it is full of garbage and waiting for cleaning and renovator. A newly farmed community organisation, "DHARA" has cleaned it partially on 22 February 2018.

Sita Kunda

Sita Kunda, lying 2 km southeast from Ayodhya railway station, is known for its sanctity that bestows *mukti* or union with Rama. According to the mythology, the Sita Kunda was made by the Sita (wife of Rama) herself and became famous for its holiness owing to a boon granted to her by Rama. Every year on the birthday of Sita, a great fair is organised at this tank (Sitaram 1933, p. 71). The present structure is a newly developed area full of trees and flowering shrubs.

Vidya Kunda

Lying 200 m east from the Mani Parvata and 1.75 km southwest from the Sita Kunda, Vidya Kunda is situated in the inner courtyard of the Mahavidya temple complex; this is a well-maintained square tank with stone-steps to all sides. A small temple of Vidya Devi (Sarasvati, goddess of knowledge) is situated on the southern side of the tank. The western side of the tank was said to contain a Vidyapitha ("seat of learning") that once might have been a religious institution of learning, which was said to be the place where lord Rama was taught by their family Guru Vashishtha in the fourteen basic sciences (Bakker 1986 II, p. 206).

Kharju Kunda

The Kharju Kunda lies 650 m south from the Vidya Kunda. According to mythology, bathing in this tank frees people from the itching or all such skin diseases, particularly

on Sunday, the day associated with the curative prosperities of the Sun god (*Surya*) with regard to skin diseases.

Durbhara Sar and Mahabhara Sar

Durbhara Sar (pond) lies 1300 m southwest from the Vidya Kunda and Mahabhara Sar lies 150 m south from the Durbhara Sar pond. Both ponds are old *tirthas* presumably lying close to each other. Dharbhara and Mahabhara are related to the worship of Shiva and Vishnu, respectively. According to mythology, the legend of *tirtha* were two florist brothers Durbhara and Mahabhara who attended upon Shiva and Vishnu whenever they were deliberating on earth (Bakker 1986 II, p. 224). Now, a part of Mahabhara Sar pond and the complete Durbhar Sar pond have been filled in. Both ponds are situated on the right and left side of the Panchakroshi circumambulation path. There are no temples and shrines connected with these two places.

3.2 Important Hindu Sacred Places

Hanumangarhi

Situated in most prominent area of Ramakot, Hanumangarhi is one of the most important temples of Ayodhya (cf. Fig. 4), and believed to be built in the CE tenth century, having structures in the four-sided fort with circular bastions at each corner. This is the place where monkey god Hanuman used to live in a cave-guard of the city (cf. der Veer 1988, p. 19), symbolised with a golden idol of Hanuman in the frame of Rajatilak.

Ramajanmabhumi

Lord Rama was said to have taken birth at this place, identified with a small Rama temple there. During the Gupta period (CE 4th–sixth century), many Vaishnavite temples were built in North India, including the famous one at this site that was rejuvenated and expanded during CE 11th–twelfth centuries. The military commander of Mughal king Babur, named Mir Baqui, demolished the temple by the order of the king in CE 1528, and using the debris made there a mosque-like monument called Baburi Masjid. On 6 December 1992, the right-wing Hindus razed the mosque in order to build a temple in the name of Lord Rama. This resulted in a serious judicial enquiry in course of time. Ultimately, the final judgement in the Ayodhya dispute was declared by the Supreme Court of India on the 9 November 2019, by ordering the disputed land (2.77 acres/1.121 ha) to be handed over to a trust (to be created by Government of India) to build the Rama Janmabhumi temple at this site. A trust of 17 members is formed on 4 February 2020, and the first meeting was held on 19 February 2020 to discuss the modus operandi and phases of building the temple there; it is expected that on the Rama's birthday of 2022 (falling on 10th of April,

i.e. Chaitra waxing fortnight 9th day of Samvata 2079) the temple will be inaugurated. This will be a grand opening for the spiritual and cultural tourism and Hindu pilgrimage.

Nageshvarnatha Temple

Situated at the vicinity of the Svaragadvara Ghat (see Fig. 4), the temple of Nageshvarnatha ("lord of serpents") was built during the period of Nawab Safdar Jung by his Hindu minister Naval Ray in the fifth decade of the eighteenth century. The temple contains a Shiva Linga, surrounded by three images of Nandin Ox ("vehicle of Shiva"). On the festival days (like Shiva's marriage day, Shivaratri), the temple is visited by thousands of devout Hindu pilgrims. According to puranic stories, this temple was founded by King Kusha, the son of Lord Rama. Kush promised Shiva that any of the pilgrims who failed to worship this Linga would not reap full benefit of his pilgrimage merit, therefore always those pilgrims who come to Ayodhya, they should visit Nageshvarnatha temple (der Veer 1988, p. 17).

Kanak Bhavan

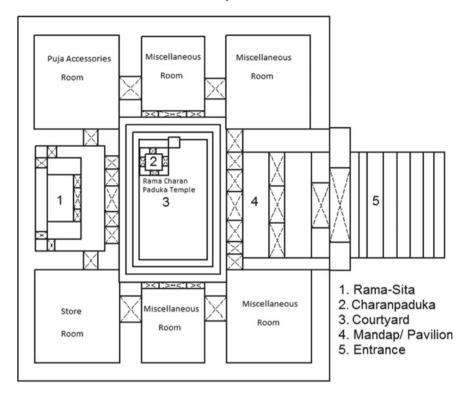
This temple was built by the Queen of Tekamahgarh (M.P.) in 1891, around an open inner court in which stands an old small and ancient shrine of Ramapada (Fig. 5). The main idols installed inside the *garbhagriha* (inner sanctum) are of the goddess Sita (wife) and Lord Rama together with his three brothers (Bakker 1986 II, p. 141).

Badi Chhavani and Chhoti Chhavani

Chhavani (an encampment) is the living place of monks (*Sadhus*) in Ayodhya, where monks take religious training for the subject of Hindu protection and also used as the place of meditation. The number of anchorites in the various ages assumes their retirement and come to Chhavani for meditation. Badi Chhavani called the Chhavani of Raghunath Das and Chhoti Chhavani as Chhavani of Mani Rama Das are situated on the Basudeo Ghat. During the Mughal (Islam) rule (seventeenth and eighteenth century), these Chhavanis had protected the temples and Hindu sculptures in Ayodhya from the attack of the Muslim invaders. On special occasions, the Chhavani provides free food to the poor, monks and cows. The temple of Rama-Sita and Hanuman (monkey god) is situated in the Chhavani where the unremitting chanting names of Rama–Sita by monks is performed on a regular basis.

Chandrahari Temple

This temple at the Svaragadvara Ghat was founded by the Gahadavala king Chandradeva in CE 1093. Chandrahari temple is the one among the five Hari temples of Vishnu, viz. Chandrahari, Dharmahari, Vishnuhari, Chakrahari and Guptahari. The Chandrahari temple contains several idols, the central one being a Shivamandala which consists of twelve *lingas*, the symbol of twelve Jyotiralingas. The same cellar contains a stone image of Ganesha ("elephant-headed god") and Durga (goddess); to the left of the main sanctum is a little shrine of Chandrahari containing two sculptures of Radha (divine consort of Krishna) and Krishna (an incarnation of Vishnu).



Kanak Bhavan Temple

Fig. 5 Kanak Bhavan Temple base plan (*Source* author's doctoral dissertation, Kumar 2018, p. 146, Fig. 4.4, reproduced with permission)

Sapta Hari Temple

The ancient sites of Saptahari temple, consisting of seven temples belonging to the CE twelfth century built by the Gahadavala king (two of them lost), associated with the seven great sages of the epic era are archetypally representing to the seven stars of the Big Dipper (*Saptarshi*) or Great Bear, as comparable to the description in the Varahamihir's *Brihatsamhita* [dated ca CE sixth century, but it refers to the *Atharva Veda* (19.6–7), dated ca 1500 BCE]. The seven stars, viz. Kratu (*DuBhe*), Pulaha (*Merak*), Pulastya (*Phecda*), Atri (*Megrez*), Angiras (*Alioth*), Vashista (*Mizar*), Bhrigu or Marichi (*Arab Alkaid*), also correspond to the western astronomy. These are mythologised with the names of Lord Vishnu (Hari) and his specific qualities (cf. Table 2). The most notable among them is Vishnu-Hari (All-Pervading Lord), about which the well-known inscription refers its construction by Meghasuta, the ruler of Saketamandala belonging to his family, who was appointed at Ayodhya by Govindachandradeva (1114–1154 CE) (Kumar and Singh 2016, p. 105; for details see Kunal 2016, pp. 311–312); however, presently only the ruin site exists.

Lord Vishnu as "Hari" and (his quality, guna)	Symbolising Purana	Vishnu's body
Vishnu-Hari (All-Pervading Lord)	Brahma	Head
Chakra-Hari (Who carries the Wheel called Sudarshana)	Padma	Heart
Gupta-Hari (Who is hidden from Mind and the Words)	Vishnu	Right Hand
Chandra-Hari (Who is as pleasant as the Ray of Moon)	Shiva	Left Hand
Dharma-Hari (Who cares to maintain Law of Ethics)	Bhagavata	Navel
Bilva-Hari (Who controls the order of Healing trees)	Markandeya	Right Foot
Punya-Hari (Who is Supremely Pure)	Agni	Left Foot

Table 2 Ayodhya: "Sapta-Hari" Temples and their symbolic notions

Source Collected from various books of mythologies, for details see Bakker (1986 II, p. 256)

These seven stars (each symbolised as one of the Hari temples) are spotted at different sites in a sequence (Fig. 6). According to folk tales, they bring down to the earth the required knowledge and energies passed on to the devotees. The seven groups of divine being or progenitor sages have correspondence with seven energy spots through the manifested form of stars. Margold (1991, p. 7) feels that "perhaps the physical Earth has been set up in order for each of us to take a *sequential* ride through the convoluted chronicles of humanity in as many ways as we possibly can". The number seven is one of the ways of alchemy, transforming idea into actuality as spot on the earth, thus the seven spots in sequential path show the seven spinal

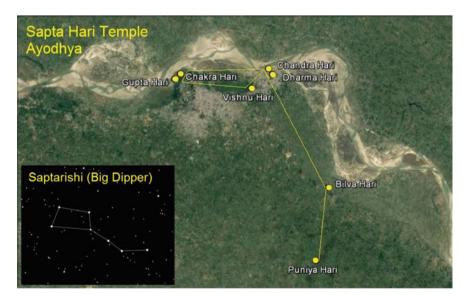


Fig. 6 Satellite image of Sapta Hari Temple (based on Google Earth image 20/04/2017, redrawing and re-setting by the author) (*Source* author's doctoral dissertation, Kumar 2018, p. 178, Fig. 7a, reproduced with permission)

Table 3 Homology ofchakras: symbolic expression	Chakra (sheath)	Associative organ	Mental state	
of "Seven"	7. Top of head	Pineal gland	Spirituality	
	6. Brow	Pituitary gland	Imagination	
	5. Throat	Thyroid	Communication	
	4. Heart	Thymus gland	Earthly commodity	
	3. Solar plexus	Pancreas	Sensitivity	
	2. Chi	Spleen	Sexuality	
	1. Base of spine (kundalini)	Sexual glands	Survival, power	

Source Collated from various books of mythologies (based on Singh 2009a, p. 34)

chakras (cf. Table 3), symbolising continuity from our survival (1) to the realm of spirituality (7). These seven *chakras* "make us a vital part of the energy vortex behind all life here, and they are the conduits to make this world whatever we need it to be for ourselves" (Margold 1991, p. 47).

3.3 Shakti Sacredscapes

According to the Mārkandeya Purāna (81-93), Devi or goddess has situated in every organism as a form of Shakti/ "energy". Devi is, quintessentially, the core form of every Hindu Goddess. In the form of female manifestation of the primordial energy, she is called *Prakriti*, and as she balances out the male aspect of the divineaddressed *Purusha*, she is eulogised as a giant anthropomorphic being. The energy that she uses to perform her task as a "cosmic delusion" ($m\bar{a}y\bar{a}$) and makes multiplied forms ($r\bar{u}pa$) for different motives, in different contexts and various ways—that is her omnipresence power (see Singh and Singh 2010, pp. 45–49). People believe that Shakti gives strength to stand with poise during storms of failures and depression. They strengthen to overcome failures and enable him to climb the ladder of success; sharpen memory; give new vitality; have faith in self and in all. The sacred River Sarayu (Ghaghara), making the riverfront of Ayodhya, is called Goddess or mother, in a form of liquid power (Shakti) and sister of the River Ganga.

The city is famous for the worshiping place of Lord Rama. Moreover, it is an ancient worship place of Shakti, and most of Shakti temples are situated in the inner part of Chaudahkroshi circumambulation pilgrimage route. Badi Devakali and Chhoti Devakali are the two most important ancient Shakti centres of the sacred city and Mahavidya temple, Chutki Devi, Bandi Devi and Pateshvari Devi temple has treasuring various historical, mythological and miracle importance. According to mythology, Badi Devakali is the temple of the ancestral goddess of Lord Rama and Choti Devakali is the temple of adorable goddess of Sita (wife of Lord Rama). All Shakti centres are the cultural heritage of Ayodhya and follow the local tradition

of worship. Local people and pilgrims make offerings and worship every day in the morning and evening. On the special occasion of Navaratri, pilgrims pay visits from the surrounding rural areas and other nearest places of the city and perform a variety of traditional religious rituals.

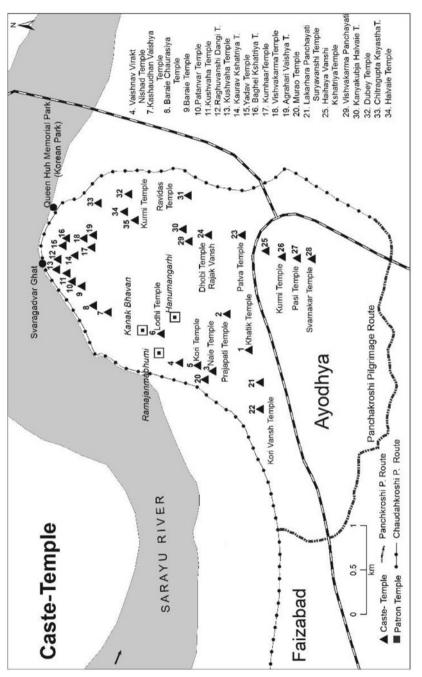
3.4 Caste Temples of Ayodhya

The building of temples by and for the particular castes is a phenomenon of the twentieth century. Caste consciousness was greatly enhanced by British administrative policies such as the census operations in which Hindus were asked to declare which caste they belong to. In this period, caste began to organise themselves on a regional or even a national level into association (*sabha/sangha*) to promote the interests of the caste. It is interesting to observe that this modernising effort on behalf of castes had as its cultural corollary the establishment of caste temples in sacred centres like Ayodhya. The city records sixty caste temples that are based on various castes; they follow the old sect tradition of Ramanandi and Vaishnava but Ravidas Temple follows the Raidas sect's tradition (Fig. 7).

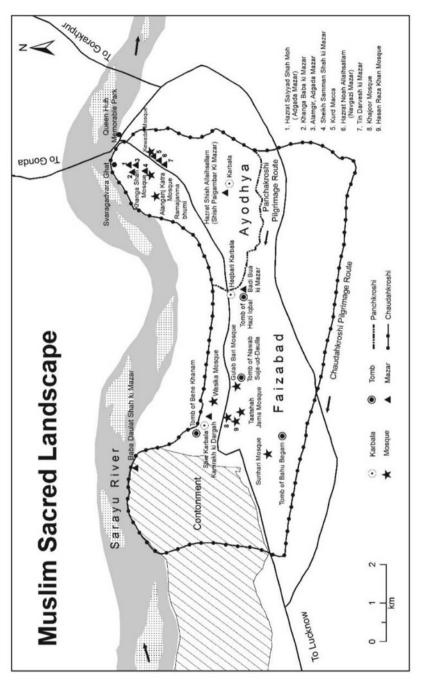
Sadhus who originally belonged to a caste were mostly the ones who organised the fundraising and who became officiating priest (*pujari*) and manager in such caste temple. Although most of these temples cater for low castes, some belong to relatively high and upwardly mobile castes, like the Kayastha. A rich caste like the Marvadi is also active in building temples, but its members are rich enough to build temples which are attractive to Hindu pilgrims in general. The typical Ayodhya caste temple is clearly meant only for members of the caste and not for outsiders. An interesting aspect of the caste temples is whether they have a Brahmin as an officiating priest or not. In general, low and untouchable castes have a member of their own caste as *pujari*, while middle and higher castes have Brahmans or Ramanandi sadhus who are at least *dvija*, twice born, most of such *pujaris* have poor economic background and not well respected in their own affinities.

4 Muslim Sacredscapes

Presently, Ayodhya-Faizabad records 186 Muslim shrines, consisting of mosques (103), *mazars* (tombs, 80), Karbala (burial place, 3), and some *idgahs* (prayer ground), that is how in folkway and metaphorically the city is known as a "Khurd Mecca"/"Chhoti Mecca", or "Little Mecca" (cf. Sharda 2016a, b; see Fig. 8). These sacred places are visited and rituals performed on regular basis; among such sites, graves of Muslim saints serve as more attractive sites in making ritual landscape (Kumar and Singh 2015, p. 70). Muslims generally practise five-pillar of Islam or five important religious rituals, viz. "confession of faith (*shahada*), ritual prayer









(*salat*), alms in form of tax (*zakat*), fasting during the month of Ramadan (*sawm*), and the pilgrimage to Mecca (*hajj*)" (Singh 2013, p. 143).

4.1 Salient Characteristics of Dargahs (Martyrs' Tombs): Sites of Pluralism

During medieval period, the mystical branches, like the *bhakti* movement and Sufism, came closer to each other and thus learnt and influenced each other (cf. Lindahl 2013). The Sufi mystic Jalalalludin Rumi (1207–1273) in the thirteenth century discussed the verses from the *Quran* that can be interpreted in favour of service to god and to the humanity; for example, the verse "And We made the House to be a place of visitation for the people, and a sanctuary" (2: 125); to put it in other words: "Make of the place where Abraham stood to pray your place of prayer" (Baldock 2004, p. 33). Rumi implied his spiritual sense inherent in the *Quran* that "provides a sanctuary where we can commune with him in peace and security" (Baldock 2004, pp. 33–34). In India, Islamic folk religion was influenced by then existing pre-Islamic and Hindu traditions and illustrated in saint worship and pilgrimage to *shahids' mazars* (martyrs' tombs). In fact, hero worship, or ancestor worship, was practised by Arabic tribes and after Islamisation, it was transformed into saint worship of Sufi teachers. The people who "fought to spread the creed, the so-called *shahids* or martyrs, are also enlisted among the saints" (see Schwerin 1981, p. 143).

The mazars are religious places for soul healing for Muslims and also attended by some Hindus. Here, practised exchange of co-existential inclusion and integration of both Hindus and Muslim visit the same *dargahs* (tombs) of the saints, and most of the times their motives reciprocate within the common merit receiving blessings (duakhani) to get relief from psycho-somatic sufferings. Simple reason behind attendance of Hindu and Muslim "has been the contiguity of tradition and receiving of merits, especially getting relief from the unidentified diseases related to spirit possession, and also issues related to unemployment, social-defame, marriage, having son, etc. Native People believe that the miraculous blessings from the *pirs* and *mutawwali*, would certainly give them relief from such sufferings" (Rahmatullah 2014, pp. 55-56). To be noted that "this tradition can be traced back to the Mughal emperor Akbar (1556-1605) who was known for visiting shrines and graves of Hindu saints, and was credited to introduce a path of syncretism among the various paths called *Din-e* Ilahi, which was centred at Gyanavapi mosque in Banaras. The interaction between the two traditions, i.e. Hindu tradition (esp. bhakti, and nirguna) and Islam (esp. Sufi) has encouraged cultural harmony and co-sharing of religious performances that ultimately helped to make an acculturated pattern of mosaic spaces and places where pilgrimages and auspicious visitation (*zivarat*) accepted as the main force" (Rahmatullah 2014, p. 55). In India (e.g. at the patron site of Bahraich), there is a "massive participation of Hindus in the offerings to the tomb and to the pole, symbols

which they could easily assimilate to the material supports of their gods" (Gaborieau 1983, p. 305). The notable sacred sites (cf. Fig. 8) are described here.

The Grave of Hazrat Noah

Navgazi Mazar, or Grave of Hazrat Noah Allaihsallam (Fig. 8), is situated in the vicinity of the Ayodhya police station. Muslims believe that Hazrat Noah saved life at the mythic enormous flood on the earth (der Veer 1988, p. 2). The grave of Noah is very popular, where newly-weds, especially poor and *dalit* Hindus, visit to seek the blessings inherent spirit for a happy married life and general well-being. The *fatiah* (prayer) ritual is performed on every Thursday by devout visitors (cf. Sharda 2016a; b). On special occasions, such as the celebration of death anniversary in the form of Urs, ritualistic celebrations are held there, and devotees commonly perform kawaali (religious songs). This tomb is considered to be the replica or spatial manifestation of the one in the town of Najaf in Iraq, which was narrated in detail by the Moroccan Arab traveller Ibn Battuta (1304–1369) in his travel accounts. This is also described in the British reports and the Gazetteer of Oudh (1877-88), however the Ain-i-Akbari, a sixteenth-century text (cf. Jarrett 1948), did not mention this (Kunal 2016, p. 297). According to a travel agency, "many visitors from Indonesia, Trinidad & Tobago take a trip to Ayodhya and other *mazars* for Noah. They club it with visit to places in the nearby districts, for example Dewa Sharif (in Barabanki) and Syed Salar Sharif (in Bahraich) (Sharda 2016a). In fact, for Muslim tourists to Lucknow or Avodhya, visit to this site and paying reverence is a must.

The Grave of Hazrat Shish Paighambar

Hazrat Shish Allaihsallam was the son of Hazrat Adam, whose grave exists here. According to legends, he was the first child to be born on the earth and lived for about a thousand years (Sharda 2016a; b). The grave is close to Mani Parvat, the place of *karbala* (burial place). Together with Ayub Paighambar, these are mentioned in the *Ain-i-Akbari* as being of six and seven yards in length (cf. Bennet 1987–88). These structures are considered as *shahids*, or martyrs, and venerated by both Muslims and Hindus (cf. Kunal 2016, p. 297).

Adgada Mazar

The grave of Hazrat Sayyad Shah Mohamad Ibrahim Majzoob (Adgada Mazar) is situated near to Svaragadvara Ghat. According to mythology, Hazart Sayyad Shah was an Islamic saint who came to Ayodhya from Tashkent, Russia in the last 750 years. Muslim and Hindu devotees, both, perform *fatiah* (prayer) ritual on every Thursday and they touch the five-hand amulet of Hazrat to redemption from all types of grief (cf. Sharda 2016a; b).

Hazrat Badi Bua Sahiba Dargah

Obviously, early Chisti Sufi and their tombs (*dargahs*), located in different towns and cities in North India, belong mostly to the sixteenth century (Kumar 1987, pp. 267–268); however, in Ayodhya, the history goes back in the past. In the fourteenth century, Badi Bua was a famous sacred female saint in this region, and believed to be sister

of Shaikh Nasiruddin Chiragh-i Dilli (ca CE 1274–1356), who was a Sufi saint of Chishti Order, born in Ayodhya and at the age of forty shifted to Delhi to live with Khwaja Nizamuddin Auliya (CE 1238–1325). The grave of Rahmatullah Bibi Hazrat Badi Bua or Badi Bibi is situated along the Panchakroshi circumambulation route of Ayodhya–Faizabad. Many Muslims and Hindus too believe in the mystical power of Badi Bua. In 1977, the restoration of the *dargah* was patronised by a Hindu Saint Ram Mangal Das, a Mahant of Gokul Bhavan at Ayodhya. Several of the historical graves exist in the surroundings of Badi Bibi. Notable among them are Shaikh Zainuddin Ali Awadhi, Shaikh Fatehullah Awadhi and Allama Kamaluddin Awadhi; these three are named after the disciples of Shaikh Nasiruddin who continued Chishti tradition in Ayodhya. Referring Ayodhya, one of the satirical couplets of Badi Bua is popularly cited by the people, i.e. *"Yahan na aalim rahega, na jaalim rahega"* ("neither any scholar of repute, nor any tyrant will reside here") (Mishra 2017, p. 337).

Hasan Raza Khan Mosque

Hasan Raza Khan was minister of the fifth Nawab Asaf-ud-Daula (1748–1797), who built this mosque in CE 1786–1790 (Ahmed 1984, p. 88, also Upadhyaya and Mishra 2012, p. 83). This is situated close to Ghanta Ghar in Chouwk. This is one of oldest mosques of the city and considered one of the most accomplished mosques of Avadh Nawabi architecture. The mosque is managed by local management committee Waqf Mazid Nawab Hsan Raza Khan under the Shia Central Board of Waqf, Lucknow.

Wasika Mosque

Wasika mosque, one of the most famous and oldest mosques of Nawabi period, was constructed by third Nawab Shuja-ud-Daula. This was the place where Begums of Nawab were performing prayer every day (Upadhyaya and Mishra 2012, p. 83). In the British period, inside the Mosque one pension office was in operation for distributing pension (*Wasika*) to the family members of Nawab based on a regal bet between Bahu Begum and British. Presently, Wasika Mosque authority involves in various social and religious activities, and one Madarasa (Muslim school) runs by the mosque (Mishra 2017, p. 87).

Jama Mosque Taatshah

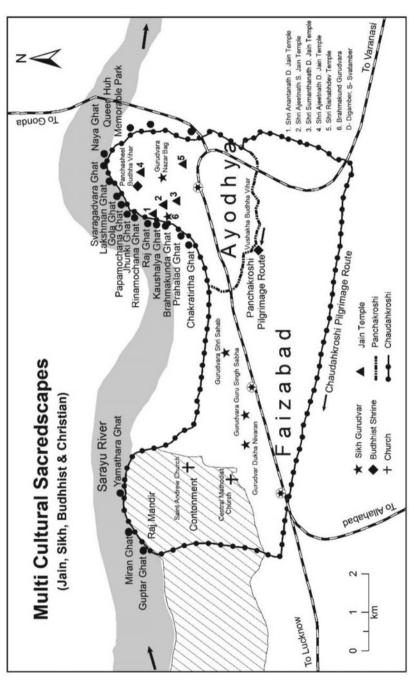
Taatshah Mosque, located in Chawk Kotaparcha area, is a prime religious centre of the Sunni sect and plays an important role in all sorts of Muslim religious affairs in Ayodhya–Faizabad and is under the control of Sunni Waqf Board. According to mythology the mosque was built by a saint called Baba Taatshah Rahmatullah Allaih with the help of local people. One of the stone inscriptions inside the Mosque indicates that repairing and renovation were made during 1936–1939.

5 Jain Sacredscapes

The city is known for the birthplace of five Jain *Tirthankaras* (prophets): Sri Adinath or Rishabhadeva (1st), Sri Ajitnath (2nd), Sri Abhinandannath (4th), Sri Sumatinath (5th) and Sri Anantnath (14th). In commemoration of the five Tirthankaras, five temples were constructed at the site of their birthplaces, respectively, at Muraitola Swargadvara, Saptsagar, Saraya, near Ramakot and near Golaghat. They also received *diksha* (initiation) in Ayodhya (cf. Fig. 9). In CE 1193, Muhammad Ghori invaded North India including Ayodhya, and his army officer Makhdum Shah came to Ayodhya and destroyed the famous Jain temple of Adinatha in CE 1194. According to Jain texts, the Mahavira, Jainism's founder, also paid a visit to this city. From Ayodhya, on the Lucknow–Ayodhya National Highway near Ronahi at a distance of 24 km at Ratnapuri lies the birthplace of Sri Dharmanath, the 15th Tirthankara.

6 Sikh Sacredscapes

Ayodhya has two main Gurudvaras (worship places of Sikhs) based on visits of the first Guru and many other gurus during various periods. The historical Gurudvara lies at Brahma Kunda, at the bank of River Sarayu. In the year CE 1557, first Sikh Guru Nanak Dev visited Ayodhya, having pilgrimage journey from Haridvar to Jaganatha Puri and had shared some religious discourses with Brahmins in the shadow of wood apple tree (bilva) on the Brhamakunda Ghat and also cleaning the teeth near to Dukhabhanjana well; now, it is protected by Gurudvara authority. According to mythology, Brahmakund was a sacred place of Hindu god Brahma in the Treta era. The ninth Guru Shri Teg Bahadur and tenth Guru Shri Guru Govind Singh visited this place and performed bathing and meditation rituals, also conveyed Guru's message to Brahmins dwellers of Ayodhya. Another historical Gurudvara of Nazar Bag is situated near the Hanumangarhi temple; Nazar Bag means "Gifted Garden"remembering the story that it was gifted by king of Ayodhya Man Singh to Guru Nanak Dev as a token of honour. Presently, a big Gurudvara is constructed by Sikh devotees and devout Sikh saints. Most of Sikh people live in Faizabad area of the city, where exist five Gurudvaras (cf. Fig. 9). The important Gurudvara of Dhukha Nivaran is situated in Khidaki Ali Beg, Civil line area; Gurudvara Shri Guru Singh Sabha, Nanakpura was built in 1948 when Sikh migrants came to Faizabad from Pakistan during the period of India-Pakistan division. Other sacred places include Gurudvara Sahab in Faizabad Cantonment area, Gurudvara Shri Guru Singh Sahab in Amaniganj and Grurudvara Shri Sahib Ji in Khavaspura (Kumar and Singh 2017b, p. 178).





7 Christian Churches

By the end of the eighth century under the control of the East India Company led by Warren Hastings, Ayodhya–Faizabad was merged in their territory. In the year CE 1810, the British built a worship place in the cantonment area of Faizabad city, but it was destroyed in 1857 by freedom fighters at the time of the First War of Indian Independence. The first church of Saint Andrew/Church of England was established in CE 1860 near to the present military temple in Faizabad cantonment area. The second important church, Roman Catholic Church/Saint Mary Church, was established in 1862. Both these churches also run schools. The Saint Mary church is operated under Allahabad Diocese of the Christian religious organisation. The third and most active church is Central Methodist, operated under the Church of North India (CNI), which was established in CE 1883 with the help of Australian missionary Reverend J.A. Elide (Mishra 2017, p. 377).

8 Memorable Landscape of Korean Queen Heo (Korean Park)

According to the *Samguk Yusa*, "*History of three Kingdoms*", an old historical tale of Korea dated CE late thirteenth century in Korean language, Queen Heo/Huh Hwang-Ho (wife of King Kim Suro, the founder of Karak Kingdom) was born in the city of Ayodhya in Uttar Pradesh. In the year CE 48, an Indian princess (Suriratna, Heo in Korean) came to Korea from Ayodhya by the journey of sea and got married with King Kim Suro of the ancient Korean Kingdom of Kaya, presently called Kimhae/Gimhae city, and is known as the ancestral home of Karak kingdom, lying in the southern part of Korea. On 27 February 2000, a delegation led by Kimhae city Mayor Song Eun-Bok, had paid visit to their ancestral site, and under bilateral agreement Ayodhya is accepted as a sister city of Kimhae; consequently, a plan was framed to set up a memorial building honouring Queen Heo in future, which was opened in 2001 and was further expanded in 2016 (Kumar and Singh 2016, p. 105; see Fig. 10). These ongoing developments are taken into account for proposing inscription of heritage properties of Ayodhya in the UNESCO World Heritage List, which has not taken the final shape till date.

Considering Ayodhya under special development programme for religious heritage and pilgrimage-tourism—developing it as nexus for spiritual insight through its multi-religious landscapes and global harmony, an agreement between the state government of Uttar Pradesh and the central ministry of culture, Government of India (24 March 2017) was signed and getting inscribed heritages of Ayodhya in UNESCO World Heritage List is considered within the purview of the recent Master Plan, 2021–2041 (cf. Singh and Kumar 2020a).



Fig. 10 Aerial view of the Heo Memorial Park, Ayodhya (based on Google Image) (*Source* author's doctoral dissertation, Kumar 2018, p. 161, Fig. 4.10, reproduced with permission)

9 Concluding Remarks

The sacred sites/ sacredscapes in Ayodhya have three main layers: first, the surface a temple between the eighteenth century and the present; second layer showing restoration of sacred sites built by King Vikramaditya (CE 380–413), who was able to revive and rediscover the original location of Lord Rama's birthplace. And, the last and most important layer is the building seen ultimately as a replica in which Rama lived in the Treta Yuga. In the context of multi-cultural religions Jains, Buddhists and Sikhs believe that Rishabhadeva and Mahavira, Gautam Buddha and Guru Nanak Dev were from the same Ikshvaku dynasty of Lord Rama. This tradition promotes mutual cohesiveness among various sects of society. Moreover, the city represents an aesthetic and unique type of cultural landscapes together with scenic beauty of the River Sarayu, that would help to rejuvenate Ayodhya as a sacred place as role model for global understanding and harmony where Hindus, Jains, Sikhs, Buddhists, Muslims, Sufis and several other small congregations together develop a series and variety of sacredscapes characterised by mosaicness and religio-cultural pluralities.

Sacredscapes are the distinct and unique cultural symbols of human culture and its creativity. What would be the impact on the Hindu world if the sacredscape would be lost from the scene? If such happening would take place, we would lose our historical and cultural linkage, i.e. a loss of great heritage sacrosanct resources placed in Hindu psyche and cosmology. This will also result in loss of human spirit and human creativity where we draw near to the ultimate; the humans will stop doing metaphysics and the search for cosmic interconnectedness between man and earth-spirit. Human rights must include sustainability together with subsistence and deeper understanding of cultural values and also get the superimposed or additive landscapes absorbed in

the archetypal frame of the city form, as already exemplified by the Korean Park. Such programmes and developments will promote and fulfil the UN SDGs 11.4 that emphasises making cities and human settlements inclusive and safeguard within the purview of the world's cultural and natural heritage (cf. Singh et al. 2020a). On this line, for the rational implementation in making holy-heritage cities, like Ayodhya, "vibrant and liveable centre of global harmony, spiritual awakening, peace and deeper understanding, public participation and education concerning the sacredscapes and their values are considered to be pre-requisite" (see Singh 2017, p. 26).

Let me close my paper with an intimate prophecy by Rana Singh, "Think *cosmically*, see *globally*, behave *regionally*, act *locally* but *insightfully*. This is an appeal for cosmic vision, global humanism, and self-realization through interfacing cultural landscapes. Altogether, it promotes a worldview of the manifested sacredscapes—a spirit of wholeness, a sense of holiness—grounded on an evolutionary cosmology at the core of which lies human dignity and future vision" (Singh 2016, p. 131).

Acknowledgements This essay is a token of tribute and appreciation to my friend, philosopher, guide (*guru*) and Mentor-Master Prof. Rana P. B. Singh, whose insights, visions, contributions, conceptual frames and theoretical constructs—altogether have shaped me what I am today. For me, he has constantly been a bridge between the ancient deep knowledge and the modern metaphysical and scientific discourses.

References

Ahmed D (1984) Shahre Aulia (in Hindi). Danish Book Depot, Tanda

Bakker HT (1986) Ayodhya: the history of Ayodhya from the 17th Century BC to the middle of the 18th Century, 3 vols. in one. Egbert Forsten, Groningen, the Netherlands

Baldock J (2004) The essence of Sufism. Arcturus, London

- Bennet WC (ed) (1877–88) Gazetteer of the Province of Oudh. 3-vols. North-western Provinces and Oudh Government Press, Allahabad
- der Veer PV (1988) Gods on earth: religious experience and identity in Ayodhya. Oxford University Press, Delhi (reprinted 1997)
- Devereux P (1996) Re-visioning the earth, a guide to opening channels between mind and nature. Fireside Book (Simon & Schuster), New York
- Ensink J (1981) Hindu pilgrimage and vedic sacrifice. In: Sinha JP (ed) Ludwik sternbach felicitation volume. Akhila Bharatiya Sanskrit Parishad, Lucknow, pp 105–117
- Führer AA (1891) The monumental antiquities and inscription, in the North-Western Provinces and Oudh (Archaeological Survey of India). Govt Press, Allahabad
- Gaborieau M (1983) The Cult of Saint among the Muslims of Nepal and North India. In: Wilson S (ed) Saints and their cults: studies in religious sociology, folklore and history. Cambridge University Press, Cambridge, pp 291–308
- Jarrett HS (1948) Ain-e-Akbari [English translation]. The Asiatic Society of Bengal, Calcutta, originally published in 1891
- Johar SS (1976) The Sikh Gurus and their Shrines. Oxford University Press, Delhi
- Kumar N (1987) The Mazars of Banaras: a new perspective on the city's sacred geography. In: Singh RL, Singh RPB (eds) Trends in the geography of belief systems. National Geographical Society of India, Varanasi, Pub 34, pp 263–267

- Kumar S (2018) Cultural landscape and heritage of Ayodhya-Faizabad: a geographical analysis. Unpublished PhD dissertation in Geography, Banaras Hindu University, Varanasi (India) [Supervisor: Prof. Rana P.B. Singh]
- Kumar S, Singh RPB (2015) Cultural-heritage tourism in Ayodhya-Faizabad: scenario and prospects. The Geographer (AMU Aligarh) 62(2):66–74
- Kumar S, Singh RPB (2016) Ayodhya, the holy city of India: riverfront and a place of Indo-Korean interfacing symbolic landscapes. Sthapatyam, Indian J Archit Art 3(6):101–116. ISSN: 2349-2369
- Kumar S, Singh RPB (2017a) Ayodhya, India: cultural landscape and perspectives for inclusive heritage development. Context: built, living and natural, vol 13 (special issue on 'Cultural Landscapes'), pp 21–30. ISSN: 0973–502X, Gurgaon, India
- Kumar S, Singh RPB (2017b) Ayodhya (India): a study of Ritual Landscapes. Pract Geogr 21(2):158–173. ISSN: 0975-3850; Kolkata
- Kunal K (2016) Ayodhya Reconsidered. Prabhat Prakashan, Patna
- Lindahl K (2013) Is the Mazar a meeting place for multi-culture?: A study of Yakub Shahid Mazar. http://kau.diva-portal.org/smash/record.jsf?pid=diva2:323694. Accessed 28 July 2016
- Margold H (1991) The Alchemist's Almanac. Bear & Co., Santa Fe, NM
- Meinig DW (1979) The beholding eye. In: Meinig DW (ed) The interpretation of ordinary landscapes. Oxford University Press, New York, pp 33–48
- Mishra Y (2017) Shaharnama Faizabad (in Hindi). Vani Prakashan, New Delhi
- Norton W (1989) Explorations in the understanding of landscape. Greenwood Press, Westport CT
- Rahmatullah (2014) Muslim shrines and multi-religious visitations as a symbol of peaceful coexistence: a study of three prominent sufi shrines. Islam Muslim Soc Soc Sci J 7(2):51–61
- Rolston H III (1994) Conserving natural values. Perspectives in Biological Diversity Series. Columbia University Press, New York
- Schwerin KGV (1981) Saint worship in Indian Islam: the legend of the Martyr Salar Masud Ghazi. In: Imtiaz A (ed) Ritual and religion among muslims in India. Manohar Publications, Delhi, pp 141–161
- Sharda S (2016a) Ayodhya's other side as 'Chhoti Mecca'. TNN, The Times of India (a daily from Lucknow), Jun 7, 01.33 AM IST. http://timesofindia.indiatimes.com/city/lucknow/Ayodhyasother-side-as-Chhoti-Mecca/articleshow/52627959.cms. Accessed 25 July 2016
- Sharda S (2016b) Noah 'rests in peace' in Ayodhya, blesses Hindus, Muslims alike. TNN, The Times of India (a daily from Lucknow), Sept 27, 2016, 10.17 AM IST. http://timesofindia.indiatimes.com/city/lucknow/Noah-rests-in-peace-in-Ayodhya-blesses-Hindus-Muslims-alike/articleshow/54533522.cms. Accessed 15 Oct 2016
- Singh RPB (1995) Towards deeper understanding, sacredscape and faithscape: an exploration in pilgrimage studies. Natl Geogr J India 41(1):89–111
- Singh RPB (2009a) Metaphysics and sacred ecology: cosmos, theos, anthropos. In: his, Geographical thoughts in India: snapshots and vision for the 21st Century. Planet Earth & Cultural Understanding Series. Pub. 2 Cambridge Scholars Publishing, Newcastle upon Tyne, UK, pp 23–56
- Singh RPB (2009b) Sacred space and faithscape. In: his, Geographical thoughts in India: snapshots and vision for the 21st Century. Planet Earth & Cultural Understanding Series, Pub. 2. Cambridge Scholars Publishing, Newcastle upon Tyne, UK, pp 227–265
- Singh RPB (2011) Sacredscapes and sense of geography: some reflections. In: Singh RPB (ed) Sacredscapes and Pilgrimage Landscapes. Planet Earth & Cultural Understanding Series, Pub 7. Shubhi Publications, New Delhi, pp 5–46
- Singh RPB (2013) Muslim shrines and multi-religious visitations in hindus' city of Banaras, India: co-existential scenario. In: Pazos AM (ed) Pilgrims and pilgrimages as peacemakers in Christianity, Judaism and Islam. Compostela International Studies in Pilgrimage History and Culture, vol 4. Ashgate Publishing Limited, Farnham, Surrey UK, pp 127–159
- Singh RPB (2016) Understanding place & envisioning the cosmos. In: Rodrigue B, Grinin L, Korotayev A (eds) From big bang to galactic civilization: a big history anthology, vol 2. Education

& 20 Augment & 20

- Singh RPB (2017) Appraising the Indian cultural landscape: envisioning ecological cosmology in the 21st Century. North East Geogr (Gauhati University, Guwahati, India) 39(1–2):03–28
- Singh RPB, Singh Ravi S (2010) Sacred places of goddesses in India: spatiality and symbolism. In: Singh RPB (ed) Sacred geography of goddesses in South Asia. Planet Earth & Cultural Understanding Series, no. 5. Cambridge Scholars Publishing, Newcastle upon Tyne, UK, pp 45–78
- Singh RPB, Kumar S (2020a) Sacred-heritage city development and planning in India: a study of Ayodhya. In: Thakur R, Dutt A, Pomeroy G, Thakur S (eds) Urban and regional planning and development: 20th century forms and 21st century transformations. Springer Nature Switzerland AG, Dordrecht and New York, pp 516–535
- Singh RPB, Kumar S (2020b) Holy-heritage city development and planning in India: a study of Ayodhya. In: Thakur R, Dutt A, Pomeroy G, Thakur S (eds) Urban and regional planning and development: 20th century forms and 21st century transformations (Festschrift in honor of Emeritus Prof. Frank J. Costa). Springer Nature Switzerland AG, Dordrecht and New York, pp. 516-535. ISBN Hb: 978-3-030-31775-1, eBk: 978-3-030-31776-8. https://doi.org/10.1007/ 978-3-030-31776-8_33

Sitaram L (1933) Avadh Ki Jhanki. Orient Books, Prayag

Swan JA (1990) Sacred places. How the living earth seeks our friendship. Bear & Co Pub, Santa Fe Upadhyaya D, Mishra A (2012) Faizabad: Itihas, Kala avam Sanskriti (1722–1815) (in Hindi). Bharti Publishers and Distributers, Faizabad



Sarvesh Kumar M.A., UGC NET, Ph.D., is an Assistant Professor of Geography, D.D.U. Gorakhpur University, Gorakhpur, UP 273009, India. He was awarded Ph.D. on the topic "Cultural Landscape and Heritage of Ayodhya-Faizabad: A Geographical Analysis" (2018), under the supervision of Prof. Rana P. B. Singh (B.H.U., Varanasi). He is serving as Joint Secretary of the ACLA- Asian Cultural Landscape Association (SNU, Korea), and life member of INTACH- Indian National Trust for Art and Cultural Heritage, life member of ABISS Akhil Bhartiya Itihas Samkalan Samiti- U.P., and member ICOMOS- National Scientific Committee: Interpretation & Presentation of Cultural Heritage Sites & Cultural Landscapes. He has presented papers on various aspects of Ayodhya in seven International Seminars held at: Bali (Indonesia, 2015), SNU Seoul (Korea, 2015, 2016, 2017, 2019), 33-IGU World Geography Congress Beijing (China, 2016), Lampang (Thailand, 2016), Vladivostok (Russia, 2017), and several National and International Seminars held in India. He has served as organising Secretary of the 7th and 9th ACLA International Symposia at Ayodhya, and Gorakhpur (2018, 2019). He has published over twenty papers on the various aspects of Ayodhya and also Gimhae aspects and published in the journals, like South Asian Affairs (Gifu, Japan, 2013), The Geographer (AMU Aligarh, 2015), ACLA Proceedings (Bali- Indonesia, 2015), Context (Gurugram, 2017), Sthapatyam (Ghaziabad/ New Delhi, 2016, 2017), Journal Space and Culture, India (UK, 2018); including chapters in handbooks/anthologies published in the series from Routledge (London, 2020, 2021) and Springer Nature Switzerland AG (Cham & Singapore, 2020, 2021).

Char Landscape of the Brahmaputra Riverine Tract, Assam: Elements of Evolution and Cultural Ecology



Abani Kumar Bhagabati and Nityananda Deka

Abstract The sand bars, locally known as *chars* and *chaporis*, constitute integral parts of the immediate floodplain of the Brahmaputra River in Assam. Most of the *chars* are, however, temporary in their size and spacing. Interestingly, some of them are spacious enough and relatively permanent, favouring the growth of certain riparian vegetation and seasonal cultivation in places. These areas continued to remain uninhabited till the first decade of the twentieth century when peasants from East Bengal started migrating to Assam in search of cultivable land. Subsequently, some Nepali people also came to occupy parts of the riverine areas that are rich in grass resources for the purpose of grazing their domesticated animals. Thus, the process of transformation of the Brahmaputra riverine areas started to evolve landscapes that reflect some peculiar kind of interaction between nature and human culture. This paper attempts to deal with the basic characteristics of these emerging landscapes in the char areas of the Brahmaputra River from cultural ecological perspectives. The study is primarily based on the field works done in the concerned areas and secondary data collected from different government and other sources. This study explores some of the less known issues pertaining to human-environment relationship prevailing in the marginal areas of the Brahmaputra riverine tract within Assam.

Keywords Brahmaputra riverine tract \cdot Char landscape \cdot Char formation \cdot Cultural ecology \cdot Land use

1 Introduction

The Brahmaputra River, locally called *Bor Luit*, is one of the important alluvial rivers of the world with certain distinctive fluvio-geomorphic characteristics. This is primarily because of the terrain diversity, pedological and climatic variations and diverse vegetal cover within the Brahmaputra's vast cross-national basin. The river in its Assam part with a total length of 680 km and an average width of 8–10 km

A. K. Bhagabati (🖂) · N. Deka

Department of Geography, Gauhati University, Guwahati, Assam 781014, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_6

exhibits a highly braided course with a large number of permanent and temporary sand bars and islands. The river islands and bars of the Brahmaputra, locally known as *char and chaporis*, respectively, are integral parts of the active floodplain tract of the river inhabited dominantly by the people of East Bengal origin along with some tribal and non-tribal indigenous people. However, the process of humanization in the *char* areas is of recent origin compared to some other inhabited areas of Assam. These islands and bars before human habitation used to remain fallow and waste manifesting virgin landscapes covered by ephemeral wetlands, forest, bushy vegetation and grasses. Only after the first decade of the twentieth century, these riverine natural landscapes started getting slowly occupied by some peasants, mainly from East Bengal under the patronage of the British Government. This process attained significant momentum during the partition of India and Pakistan and subsequently after the creation of Bangladesh. Thus, the people of erstwhile East Bengal (present Bangladesh) and also some from Nepal, along with a section of the indigenous people, started slowly transforming some of these *char-chaporis* into inhabited landscapes. The char-chaporis of the lower and middle Brahmaputra valley are now dominantly inhabited by the Muslim peasants of immigrant origin, while that of the upper part of the valley is mainly under the occupation of the Nepalis and some indigenous tribal and non-tribal people. These *char-chaporis* are fluvio-geomorphologically most vulnerable, ecologically sensitive, topographically marginal and economically poor compared to the built-up areas of Assam.

The lives and livelihoods of *char*-dwellers are mainly defined by the river and the riverine ecology. Unlike the mainland, the ethnic diversity, occupational variety, economic opportunities and pace of development are minimal in the *char* areas of Assam. Moreover, the lifestyle, settlement pattern, house type, socio-economic and demographic conditions, cropping pattern and practice of the immigrant Muslim and Nepali peasants are different from those of Assam's indigenous people. The peasants through their hard work have transformed the fallow char areas into productive agricultural lands. It is also noteworthy that most of the agricultural lands in the built-up areas of the valley are slowly getting transferred to the hands of the peasants of charchaporis as the indigenous peasants during the recent years have started employing the immigrant peasants in cultivating their fields. It has been noticed that a considerable proportion of agricultural lands owned by the indigenous people are lying abandoned or under-used as their present generation mostly prefer to be engaged in various secondary and tertiary activities rather than agriculture. However, unlike the built-up areas, the process of agricultural land abandonment is very insignificant in the char-chaporis areas inhabited by the people of immigrant origin. The peasants here irrespective of their age group are hard-working and devote most of their time in agricultural practices throughout the year. The positive correlation (r = +0.22) derived between the proportion of immigrant population to the total population and the intensity of cropping in the valley reflect that the cropping intensity is relatively high in the areas inhabited by peasants of immigrant origin (Deka 2013). Besides, most of the unskilled labourers engaged in different construction works in the mainland Assam are from these char-chaporis. Importantly, the char-dwellers of East Bengal origin in general educate their children in Assamese medium of instruction;

Table 1 Char villages in theBrahmaputra valley districts	District Number of <i>char</i> village			
of Assam, 1993–2003		1992–93	2002–03	% change
	Barpeta	381	227	-40.42
	Kamrup	148	175	+18.24
	Nalbari	58	32	-44.83
	Darrang	121	134	+10.74
	Goalpara	187	179	-4.28
	Dhubri	313	480	+53.35
	Bongaigaon	150	117	-22.00
	Nagaon	29	43	+48.28
	Morigaon	14	39	+178.57
	Sonitpur	118	145	+22.88
	Lakhimpur	182	109	-40.11
	Jorhat	210	293	+39.52
	Tinsukia	86	79	-8.14
	Total	2089	2251	+7.75

Source Directorate of Char Areas Development, Govt. of Assam

as such, they have established many Assamese medium schools in *char* villages of the valley. Thus, by adopting the Assamese language, culture and tradition and by involving themselves in different farm and off-farm activities, the *char*-dwellers have been trying to gradually assimilate themselves with the Assamese society. Known as *Na-Asomiya Musalman*, they have now become an integral part of the greater Assamese society.

The river Brahmaputra experiences spatial variations in geo-hydrological conditions while flowing through Assam, and as a result, the occurrence of chars is found to vary from district to district within the state. Again, the river sometimes creates new *charlands* or washes away some of the existing ones. This process of erosion and accretion of sediments has made the *char* landscape unstable compelling the char-dwellers often to move with the river. The number of char-chaporis within the riverine tract has been changing over time depending upon the dynamics of the river's flow regime. It was seen during 2003–04 that among the Brahmaputra valley districts, Dhubri had the highest number of *char* villages followed by Barpeta and Goalpara. On the other hand, the river reach in Nalbari district had the lowest number of *char* villages. The number of char villages during 1992-93 was 2089, which increased to 2251 in 2002–03 registering a change of 7.75% (Table 1). The char villages covered an area of 3609.27 km² in 2002–03 accounting for 6.65% of the valley's total area and 4.60% of the state's total geographical area. The total population of all char villages in Assam as per 2002-03 survey was 24,90,097 accounting for 9.34% of the state's total population.

The char-dwellers of the Brahmaputra valley have been facing many socioeconomic problems. Inhibited mostly by the people of immigrant origin, the chars are often used as vote banks by some political parties of Assam. It is observed that illiteracy, geographical isolation, physical inaccessibility and lack of proper endeavour for char area development on the part of the Government have still kept the charchaporis socio-economically backward. Although the char people constitute the main workforce for the state, they are always looked down by the mainstream people and the government. Again, it is a matter of serious concern that the sand bars and islands are highly prone to various fluvio-geomorphic hazards like flood, erosion and sedimentation. Every year, a considerable amount of agricultural and residential lands of *char-chaporis* get eroded by the Brahmaputra that renders many people homeless and landless. Moreover, many permanent char villages have been wiped out forever. Despite that, the char-dwellers have successfully adapted to the riverine environment by initiating certain peculiar livelihood and disaster management strategies. The knowledge and techniques of farming and other disaster management practices followed by char-dwellers are very useful which can be applied in other flood-prone areas of Assam. Again, the *char* landscapes with distinctive physical and cultural characteristics put before the development planners certain unfamiliar challenges for sustainable development in the context of the *char* environment. The *char-chaporis* may also be considered as the key areas for conservation and eco-restoration as they provide habitat for some highly endangered fauna and flora. It is, therefore, felt that the understanding of the natural complexity and dynamics of such volatile areas is very much essential for implementing sustainable management schemes (Ward et al. 2001).

Although the *charlands* of the Brahmaputra bear immense significance from cultural and fluvio-geomorphic points of view, in depth studies on them are still rare. The studies carried out by Goswami (1989), and Deka (2005) are basically concerned with the physical aspects of these landforms. However, Bhagabati (1999, 1994a, 1994b) and Abdus Sahid (1993) made some attempts to study the ecological conditions and the pattern of cultural adaptation in the *char-chaporis* of the Brahmaputra River.

The present study is an attempt to discuss (i) the causes of *char* formation under different geo-hydrological conditions of the Brahmaputra valley within Assam and (ii) subsequent development of cultural landscapes including agricultural activities from cultural ecological perspectives. A micro-level example is also presented to substantiate some of the observations made in connection with the pattern of land use in the *char* areas.

1.1 Study Area and Methodology

The Brahmaputra has formed a peculiar river valley within Assam in the sense that it is characterized by a very dense network of rivers originating from various sources. The entire valley with a very gentle gradient (13 cm per km on an average) is very

narrow and elongated (Figs. 1 and 2). Covering an area of $56,194 \text{ km}^2$, the valley has a length of about 680 km from east to west with an average width of 80 km. On the other hand, the total basin area of the Brahmaputra is $5,80,000 \text{ km}^2$. Therefore, the surface runoff and the sediment load carried down by the tributaries from the vast basin ultimately make the river Brahmaputra highly unstable particularly during summer. The mighty Brahmaputra is fed by as many as 32 major north and south bank tributaries within Assam. The north bank tributaries originating from the Arunachal and Bhutan Himalayas carry huge volumes of tertiary sediments, while those on south bank originate from the Meghalaya and Karbi plateaus and carry relatively less sediments. Therefore, the north bank tributaries, which exhibit braiding patterns, have contributed much to the formation of *char-chaporis* in the master river Brahmaputra.

Located in the monsoon region, the Brahmaputra valley experiences high humidity with sufficient annual average rainfall (200 cm) and temperature (28.50 °C) in the monsoon season. Monsoon rains from June to September account for 60–70% of the valley's total annual rainfall. This season experienced an average annual rainfall of 157 cm during 1993–2006. On the other hand, the valley received an average annual rainfall of 58 cm, 16 cm and 6 cm in the pre-monsoon, retreating monsoon and dry season, respectively, during the same period. The morphological characteristics of *char-chaporis*, their location and pattern of land use vary according to the flood cycle, which is basically determined by the monsoon rains.

The Brahmaputra valley in Assam is endowed with different types of soil resulting from varying geological, topographic and climatic characteristics. The alluvial and piedmont soils distributed extensively over the region, favour the formation of *charchaporis* in the riverine tract. Two types of alluvial soil—younger alluvium and old alluvium—are found to occur in the area. The *char-chaporis* are mainly composed of

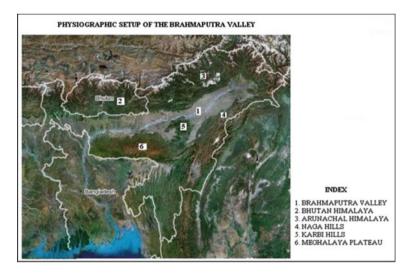


Fig. 1 Physiographic set up of the Brahmaputra valley (Source Deka 2013)

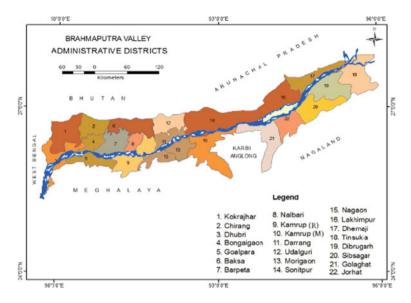


Fig. 2 Administrative districts of the valley (Source Deka 2013)

the younger alluvium. It is thus seen that the geological, hydrological and topographic conditions of the Brahmaputra valley are highly conducive for the formation of sand bars and islands in the river.

The present study is mainly based on personal field experience, and primary data is collected through interviewing people residing in different *char-chaporis* of the valley. In addition, oral interviews were conducted among some aged people to know their perception of the changing pattern of *char* morphology and the development of cultural landscapes over time. Necessary secondary data on *char* villages, their population and other demographic and socio-economic characteristics were collected from the Directorate of Char Area Development, Government of Assam. Some information regarding the land use pattern and its change, cropping pattern, marketing of crops, flood levels, soil quality and land classes were acquired by following the participatory rural appraisal (PRA) method in selected areas.

2 Process of Char Formation

Being an important alluvial river with a vast basin area, the Brahmaputra carries a huge volume of sediments. This has enabled the river to create many sand bars and islands throughout its middle course in Assam. The formation of sand bars and islands in the Brahmaputra River channel can be ascribed to the varied geological, hydrological and topographical conditions of the basin, and also to the braiding behaviour of the river and its major tributaries. As the Brahmaputra River basin is huge in size and its valley within Assam is much smaller compared to the size of the basin, the valley receives sufficient runoff and sediments. However, due to the low gradient, the water flow in the middle course becomes sluggish, and thus fails to transport all the sediments generated mainly from its tertiary mountainous catchments. In fact, the riverine landforms like sand bars originate due to the alternate process of accretion and sedimentation in and along the riverbanks. The river flow becomes remarkably weak in winter because of the extremely low water discharge. The seasonal and spatial variability of flow has a great impact on the formation and development of sand bars and islands. The rate of precipitation over the basin in winter months comes down significantly; as a result, the flow becomes too low and slow to carry the sediments to the mouth, and ultimately these get deposited in the form of bars and islands over the riverbed. In winter, the river water tends to move through a number of bifurcated and rejoining channels around the sand bars and islands. On the contrary, during the summer months, the river basin in Assam receives the highest amount of rainfall that helps generate enormous runoff to make the river flow over the bars and islands (char-chaporis).

The Brahmaputra with a mean discharge of 38,0000 m³/sec is the third most important river in the world, the first and second being the Amazon and the Congo (Dikshit and Dikshit 2014), respectively. The flow during the rainy season (May through October) accounts for about 82% of the total annual flow of river at Pandu (Guwahati); at this point, the river transports more than 95% of the annual suspended load with an average daily rate of 80 ha/m (2.12 million metric tonnes) (Goswami 1985). The river carries an annual suspended load of 800 million tonnes, which is worked out to be 1250 tonnes of sediment per km of drainage area (Dikshit and Dikshit 2014). The mean annual maximum and minimum flows in the river during winter and summer are 51,156 m³/sec and 3250 m³/sec, respectively (Goswami et al. 1991). The variability in discharge is caused not only by the seasonal and spatial variation of monsoon rainfall but also by the freezing and melting processes of the glaciers in the Himalayan catchment during the summer and winter seasons.

It is noteworthy that the mid-channel islands remain usually surrounded by bifurcated wet channels throughout the year, while the attached sand bars are connected to the mainland under normal water flow conditions. The elevation of these sensitive landforms above the low or average water level is determined by the variation of the river water discharge. Most of the bars and islands get submerged due to the rise of the river water level during monsoon. The oscillation of stage and discharge of the river in winter and summer makes the *chars* unstable with changing shape and size.

The building of central and lateral bars in an alluvial river has been an important part of the process of braided channels (Leopold and Wolman 1964). The formation of sand bars and islands makes the river pattern braided, wider and shallower. This process deflects the river flow to attack both the banks; thus, it produces enormous sediments from the erodible banks, and ultimately enhances the process of *char* formation. These bars and islands merge together to form big and permanent charlands. The occurrence of abandoned and dry channels in the braided Brahmaputra in winter is a common phenomenon. The abandonment of any adjoining channel can convert an island into a bar. It is noteworthy that in the braided reach of the

Brahmaputra, the medial bars emerge as islands within the river channel. The main mechanism behind the formation of bars and islands can be ascribed to the intense braiding pattern caused by deposition of sand particles in longitudinal and transverse direction as well as at the nodal points (Goswami et al. 1991). The braiding indices for the Brahmaputra River reach in Barpeta district are calculated for different years using Brice formula (Deka 2005). Topographical sheets of 1:50,000 scale and satellite imagery of different years are used for the purpose. The braiding indices for the river reach in Barpeta district (Fig. 3) during 1968–69, 1983–84, 1996 and 2002 were calculated at 6.4, 11.7, 10.8 and 8.5, respectively (Table 2) (Deka 2005). Goswami (1989) calculated the total braiding index for Brahmaputra River near Guwahati as 6.7.

The gentle gradient as well as shallow bed configuration of Brahmaputra River is also responsible for making the river locally incompetent to transport huge amount of sediments, which contributes to the processes of *char* formation. The gradient of the Brahmaputra riverbed is steep within the state of Arunachal Pradesh. The riverbed slope is 0.62 m/km between Kobo and Dibrugarh, 0.1 m/km between Neematighat and Guwahati and 0.094 m/km between Guwahati and Dhubri (Barthakur 1978). It is found that after the great earthquake of 1950, the bed of the Brahmaputra River in

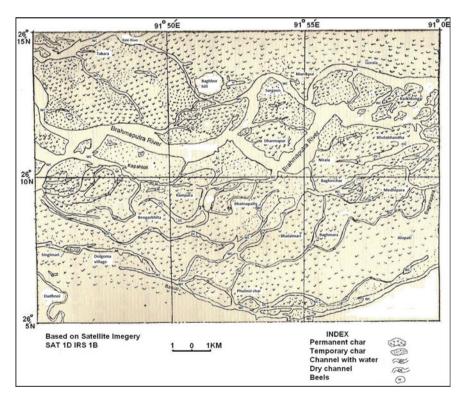


Fig. 3 Braiding pattern of the Brahmaputra river reach in Barpeta district (Source Deka 2005)

Table 2 Braiding of theBrahmaputra River reach in	Year	Braiding Index
Barpeta district, Assam	1968–69	6.4
	1983–84	11.7
	1996	10.8
	2002	8.5

Source Calculated by the authors from Topographical Map and Satellite Image

Assam was raised by more than 2 m due to the enormous silt deposits, rendering it very shallow and wide.

The development of *chars* depends upon the trend of 'swinging' of the bank lines of a river. It is observed that the banks of the Brahmaputra are composed mostly of fine sand and silt, which remain soaked with high moisture content during summer and become dry in winter creating conducive conditions for bank erosion. It can be estimated that in the process of the shifting of the Brahmaputra river bank, the erosion of one bank is approximately compensated by the deposition on the other. The bank lines of the Brahmaputra River in different reaches are extremely unstable because of continuous aggradation and degradation (Table 3).

It is found that, on the one hand, the total average shift of bank line in the north bank of Brahmaputra River reach in Barpeta district during 1926–2002 was 7.93 km due to bank erosion, while the river caused aggradation along its bank on an average of 2.2 km (Table 4). On the other hand, the total average change of the south bank

Bank line	Time span	Average shift in km			
location		Right side shifting	Causes of shifting	Left side shifting	Causes of shifting
North	1926–68	3.6	Erosion	0.4	Deposition
	1968–71	1.32		0.85	
	1971-83	1.5		Nil	
	1983–96	0.8		0.7	
	1996–02	0.71		0.25	
	Total	7.93		2.2	
South	1926–68	2.46	Deposition	0.2	Erosion
	1968–71	0.1		1.48	
	1971-83	0.16		0.1	
	1983–96	0.46		0.2	
	1996–02	0.42		0.1	
	Total	3.6		2.08	

 Table 3
 Bankline shift of the Brahmaputra River reach in Barpeta district, 1926–2002

Source Calculated by the authors from Topographical Map and Satellite Image (IRS ID LISS III)

Bank line	Average shift	Remarks	
location	Right side shift	Left side shift	
North	7.93	2.2	7.93 km due to erosion 2.2 km due to deposition
South	3.6	2.08	3.6 km due to deposition 2.08 km due to erosion

Source Calculated by the authors from Topographical Map and Satellite Image (IRS ID LISS III)

is estimated to be 3.6 km because of bank degradation and 2.08 km due to bank aggradation (Deka 2005). Bank failure is caused by different hydraulic and geological factors. The fluvial processes govern a bank's form and rate of decline, whereas the mechanism of failure is determined by the engineering properties of the soils. High moisture content, low proportion of clay, lack of cohesiveness and variability in composition of bank material, fluctuation of water level of the river, rate of scour and deposition occurring during flood have made the Brahmaputra River highly susceptible to erosion.

The distributional pattern of bars and islands is therefore not uniform and is associated with the change and migration of the channels and the fluctuation of flood cycle and sediment discharge. The most striking feature of the change in channel configuration of the Brahmaputra River is the continuous shift of the *thalweg* ('line following the lowest points of a channel') from one location to another within the bank lines of the river (Coleman 1969).

It is found that the sand particles in the bed and banks are not only heterogeneous in their horizontal distribution but also in their vertical stratification. The pattern of deposition of sand particles is different in the forward and leeward sides of the bars and islands. Usually, the finer sands along with silt and clay get deposited at the leeward side. The *chars*, whose elevation is higher than the average flood level, possess a layer of silt and clay over the sandy surface. The finer sediment is gradually carried onto the bar as it grows surface-ward to give a vertical gradation of the particles from coarse to finer. This layer facilitates the growth of different types of vegetation and favours the development of a peculiar ecological system over the *char-chaporis* (Sarkar et al. 2003).

Table 4Total shift of bankline of the Brahmaputra inBarpeta district during1926–2002

3 The Char Ecology

The *chars* of the Brahmaputra represent a kind of landscape being constantly modified by certain natural and human processes. These are characterized by the ongoing interaction between people and environment and thus form an interesting field of study from the viewpoint of cultural ecology. Cultural ecology is concerned with the factors and effects of interaction between society and its environment. It tries to examine how the culture of a specific group of people impacts the entire environmental complex that they occupy and the way in which the environment affects the people who reside within them (Jackson and Hudman 1990).

The char-chaporis are spatially dynamic. They may expand or shrink in size and are characterized by fragmentation of landscapes resulting from the degradational and aggradational activities of the river. Therefore, from an ecological perspective, these landscapes may be considered as the most sensitive and spatially marginal. The extent, composition and configuration of char habitats vary in response to the fluctuation of discharge and flow pattern of channels passing through the midchannel islands and lateral bars. Surrounded by multitude of bifurcated channels, char-chaporis form some complex and sensitive aquatic, amphibious and terrestrial landscape elements which can be referred to as the shifting habitat mosaic (SHM) (Tockner et al. 2006; Stanford 1998; Ward et al. 2002). The SHM is composed of habitats, transition between biomes ('ecotones') and gradients that possess biotic distributions and biogeochemical cycles which change in response to the fluvial processes; thus, such mosaic allows many species to coexist in the riverine landscape (Tockner et al. 2006; Robinson et al. 2002). The char areas, with frequently distributed ecosystems and strong disturbance regimes, experience rapid turnover rates of the abiotic and biotic components that can create a pioneer plant community on the freshly deposited sediments. The degree of habitat change is, however, determined by flood magnitude, time since the last flood, and the presence of vegetated islands (Tockner et al. 2006).

The diverse fauna and flora of the *char* areas adapt to the dynamic geohydrological situation of a braided river. It has been seen that the interplay between vertical and lateral connectivity in braided rivers results in the occurrence of diverse floral and faunal communities (Robinson et al. 2002). Lateral hydrological connectivity can be expressed as the duration of a water body connected at the surface to the main river channel. Hydrological connectivity is the main determinant that explains the distribution of aquatic organisms across a river-floodplain gradient (Tockner et al. 2003). The *char* areas, composed of sand, silt and a little amount of clay, which are predominantly inorganic in nature, usually do not favour luxuriant growth of vegetation. Even then, the *chars* provide habitats for a large number of rare invertebrates and mammals and insect community.

Interestingly, the relatively permanent islands with some vegetation cover usually represent certain landscape features that can be used as indicators of the ecological status of the riverine environment. Ecologically, the river islands are pivotal landscape elements as they represent early successional stages used by a diverse and often endangered fauna and flora as new habitats. They remain almost unaffected by invasive species and serve as stepping-stones for migrating organisms like small mammals (Tockner et al. 2006). In the *char* areas of the Brahmaputra valley also, there are a large number of wetlands like *beels* and swamps, which serve as favourable habitats for a variety of aquatic flora and fauna.

Although the *chars* of Brahmaputra River naturally favour the growth of a particular group of riverine vegetation, the ecological diversity in these landforms is not as rich as that of other natural landscapes. This is because of the fact that chars are unstable and chronically affected by flood and erosion. The soils of chars generally have less humus content. It is seen that after 2-3 years from the appearance of the sand bars or islands, the warm and humid climate of the valley and the thin surface layer of alluvial deposits favour the growth of some species of sharp and tall grasses, often up to a height of 3-4 m. The grasses have a good root network that accelerates further deposition of sediments on the char surface during floods. Floating organic matter as well as organisms, which flow downstream during floods, get aggregated and accumulated on the chars after the recession of floods. This serves as a major dispersal vector for aquatic and terrestrial organisms along the river corridors (Tockner 2006). If the bars or islands tend to become permanent and charged with alluvium deposits by recurring floods, a succession of flora and fauna starts developing giving rise to a peculiar type of ecology that can be rightly termed as char ecology. It is also noticed that floods not only supply alluvium to the *chars* but also bring shoots, seeds and roots of many species of vegetation from different parts of the valley and even from the hilly catchments to char-chaporis. The uprooted parts of the vegetation, which get deposited along with the sediments, start growing up with the onset of monsoon rains. The grasses and bushy vegetation like Nal (Arundo donax), Khagari (Phragmaties karka), Tora (Alpinia allughas), Kahua (S. spontaneum), Ulu (Impereta cylindrica) and Jaobon (Tamarix diocia) dominantly grow over *char-chaporis*; the *char*-dwellers use them as fodder, fuel and thatching materials. The stems of the plants are used for making walls of their houses and for fencing their homesteads. Some tall trees like Simul (Bombax ceiba), Khair (Acacia catechu), Shishu (Dalbergia sishoo), Siris (Aloizzia procera), Bogori (Ziziphus), Moj (Pithecellobium monadelphum), Kadam (Anthocephalus cadamba) and Poma (Cedrela toona) are also seen in the relatively stable and permanent chars. It is true that many *char-chaporis* in the Brahmaputra valley had dense forest cover and grasslands before human habitation. Certain parts of these chars are still rich in trees, grasses and wildlife (Fig. 4). However, very recently, the human components in the char environment have emerged as more dominant and active, which eventually have made human interaction with other elements more complicated. Initially, people did not build houses on the newly appeared chars. They first used the vegetated charlands for grazing as well as cultivation and erected their small temporary sheds (pam ghar) mainly to look after their agriculture and domesticated animals. Gradually, when it becomes clear that the char will attain permanency, they start building houses initially in the central part of the chars. The ecological condition of char-chaporis is also enriched by the char-dwellers through plantation of trees

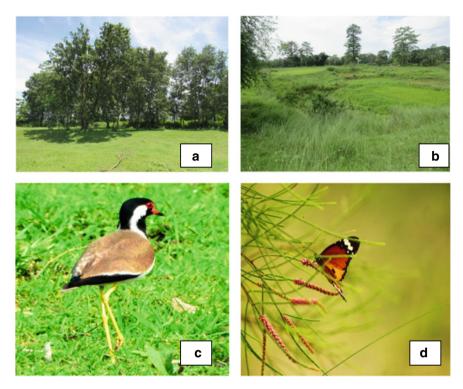


Fig. 4 a Naturally grown trees, **b** Grasses over slightly higher land, **c** Waltted lapwing (*Vanellus indicus*), $\mathbf{d} = \text{Common tiger}$ (*Penthera tigris tiger*). Picture credit: Saraswati Bhattarai

around their houses. This is done to protect themselves from winds and also to maintain privacy as the families usually have open courtyards with little boundary fencing if any. The trees generally planted in the homesteads include a variety of fruit and wood trees such as banana, mango, coconut, betel nut, lychee, jackfruit, guava and papaya.

4 Process of Peopling

Unlike the long history of human habitation in most parts of the Brahmaputra valley, human habitation in the *char-chaporis* of the valley is of very recent origin. The Brahmaputra valley witnessed the start of peopling process around five to seven thousand years ago. Human history might have started in the fertile lands of Assam long before the advent of Aryan civilization, which spread eastward along the Brahmaputra valley. However, the process of peopling in the *char* areas started around a hundred years ago. Therefore, a new cultural ecology has evolved in these riverine landscapes resulting from the eco-friendly response of the *char* inhabitants to their

immediate riverine environment. It is worth mentioning here that the peopling process in *char-chaporis* is rapid, and these areas are the most densely populated tracts of Assam at present. Char-chaporis are inhabited dominantly by the people of immigrant origin, as mentioned in Sect. 1. Except for the indigenous tribal and nontribal Assamese people, the movement of immigrant Muslims, Bengali refugees and Nepalis into these areas was encouraged by some political regimes. In 1905, Lord Curzon, in pursuance of 'Bengal Breach Scheme', constituted a new province by amalgamating East Bengal and Assam; as a result, East Bengal and Assam came under the same administrative zone. After this amalgamation, large-scale migration took place during and after 1905 to the thinly populated lower Assam districts from the thickly populated districts of Mymensing, Rongpur, Pabna and Bogra of East Bengal (Guha 1977; Ali 2005). Thus, the comparatively sparsely populated areas of the valley had attracted a large number of landless and marginal peasants from East Bengal. In 1911, for instance, while the Brahmaputra valley had a population density of 63 persons per sq. km, East Bengal recorded a density of as high as 243 persons. The colonial rulers had given more emphasis on increasing agricultural production from the cultivable fallow and waste lands to meet the food grain demands as well as to increase land revenue. They had already started cultivating tea in Assam, and for that, thousands of tea garden labourers were imported from Madhya Pradesh, Bihar and Odisha during and after 1858 (Guha 1977). They also patronized the immigration of hard-working peasants and agricultural labourers from the erstwhile East Bengal, and these people were accommodated in *char-chaporis* to transform these unused lands into agriculturally productive areas. The vast tracts of char-chaporis which were covered with grasses and forests and treated as Professional Grazing Reserves (PGR) were then used for temporary (pam) agriculture and grazing on annual lease system by engaging the peasants of East Bengal and local milk-men by the Zamindars, especially in Goalpara district (Seikh 2005). With the increasing pressure of immigrant population, large tracts of land were gradually de-reserved from each of the PGR and ultimately settled with the immigrants (Guha 2000). As the chars of Goalpara district were nearest to East Bengal, the process of peopling in char-chaporis of the Brahmaputra valley started first in this district, later in other char areas of Kamrup, Darrang, Nagaon, and subsequently in the districts of upper Assam. The census report shows that during 1904–1911, out of 54,000 immigrants from East Bengal, 51,000 were in Goalpara district. In 1921, the number of immigrants increased to 141,000 only in Goalpara district, while it increased to 30,000 in other districts of the Brahmaputra valley (Ahmed 2005).

The Bengali refugees, who are mainly in *char-chaporis* of the lower and middle Brahmaputra valley districts, migrated from erstwhile East Bengal due to the communal conflicts occurred just after the partition of the country in 1947, and during and after 1971 when erstwhile East Pakistan became an independent country called Bangladesh. The Nepali inhabitants of the Brahmaputra *char-chaporis* also arrived when the pioneer group of Nepali people, some of whom were employed as soldiers and workers by the British, informed about the presence of extensive grasslands and culturable waste lands in Assam to their poor compatriots. These Nepali immigrants established many dairy farms (*khutis*) in *char-chaporis* by rearing herds of buffaloes and cattle in the grasslands of the riverine tract. The indigenous people, who are numerically small in *char-chaporis*, are from the Mishing and some other non-tribal Assamese communities. Some of these people have been living in the permanent *char-chaporis* like the Majuli river island of the upper Brahmaputra valley for a long time.

5 Pattern of Human Habitation

The pattern of human habitation on the *char-chaporis* of the Brahmaputra Valley is basically governed by their hydro-ecological environment. The evolution of settlements, spatial patterns and types of dwellings in the active floodplain areas clearly reflect the intimate relation between the river and the culture of the inhabitants (Fig. 5). Dominated broadly by an aquatic environment composed of the river channels and the wetlands, this type of habitat assumes more or less the character of a waterscape peculiar to the valley's environment (Dahiya and Thaitakoo 2012). It has been observed that the relatively permanent *chars* are thickly populated compared to the semi-permanent ones, while the temporarily occurring *chars* are not generally preferred for human settlement. It is a common feature in the *char* landscapes that the settlement pattern shows a kind of clustering in the core area of the *chars* as the marginal areas are highly prone to flood and bank erosion. In some thickly populated chars, the inhabitants have built some earthen heaps in the core as well as marginal areas for taking shelter during high floods. Again, most *chars* of the Brahmaputra valley get fully or partially submerged during high floods, and the people have to take shelter in the nearby embankments, highways or other roads. Because of the frequent damages caused by the flood and erosion, most *char*-dwellers usually build their houses in a casual manner. It is also noteworthy that house types are seen to differ among the *char* communities. The house types of the Muslim immigrants and the Bengali refugees almost resemble with their ancestral houses in Bangladesh. The Nepali and the Mishing people, on the other hand, traditionally construct platform houses (*chang-ghar*), a type of house built over a bamboo or wooden platform

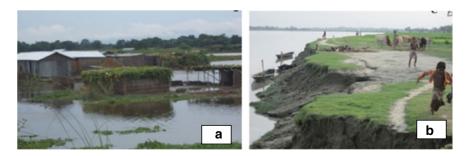


Fig. 5 a Dwellings in a waterlogged area, b Bank erosion in *char* areas. Picture credit: Nityananda Deka

usually 2–3 m above the ground. However, the height of the platform generally varies according to the probable flood level. This house type is very significant and well adapted to the flood-prone environment of the valley as the normal or medium floods can move easily beneath the platform causing no harm to the life and household assets. Also, the domesticated animals and livestock are accommodated beneath these *chang-ghars*. Thus, by devising such *chang-ghars*, the Nepali and Mishing people have set a good example of traditional living with the flood-prone landscape houses (cf. Dahiya and Thaitakoo 2012). Relatively dense settlements are often seen only in the central zone of the *chars* particularly along the natural levees of the small channels, which crisis-cross them. The plots of land accommodating the small *bastis* (settlements) are normally perpendicular in alignment to the channels, which enable the households to enjoy the facilities for bathing, washing, boating and fishing provided by the river. Thus, the overall shape of the settlement generally appears to be linear (Bhagabati 1994b).

Linear settlements are also seen along the discontinuous village roads. It is also not unusual that some people, who do not have residential land, have built their houses in the midst of agricultural fields forming a dispersed pattern of settlement. Due to the alarming growth of population in *char-chaporis*, especially in the lower Brahmaputra valley, vast cultivable lands are getting transformed into dwelling sites. Again, just to meet the demand of the growing population, the forest and grazing lands of *charchaporis* have been cleared for growing crops. Thus, the expansion of settlement and agriculture to the marginal *char-chaporis* and intensification of economic activities in the riverine tracts have together remarkably disturbed the otherwise unrestrained natural landscapes of the Brahmaputra riverine areas.

6 Emerging Cultural Landscapes

The cultural landscape of *char-chaporis*, on one hand, has not been so diverse in respect of population composition, tradition, caste and religious composition, food and dress habits, settlement and house type, occupational pattern and economic pursuits. On the other hand, most parts of Assam, other than the char areas, have been inhabited by a number of ethnic and religious groups; through their respective traditions and customs, they have created a mosaic of cultural landscapes befitting to the natural settings within the state. The history of human habitation in the builtup areas of Assam is very old, and as such, these areas manifest a well-articulated pattern of cultural landscapes. The char areas of the Brahmaputra valley are basically characterized by almost homogeneous topographic and ecological conditions with relatively weak resource base. Also, unlike the indigenous villages of the valley, the majority of *char* villages are inhabited by a single religious community, most of whom are economically below the poverty line. Apart from these, the physical isolation and instability, inaccessibility, inhospitable conditions and relatively late peopling have made the cultural landscapes of the char areas less diverse in character. The cultural landscapes of *char* areas are still in their formative stage. It is also noteworthy that these landscapes are made more complicated and disorganized in the context of an emerging environment of rapid population growth and limited land and other natural resources. Such a situation has been further aggravated by the problems of flood and river bank erosion.

Except for the temporary *chars* that usually sustain for a few years, almost all the permanent *chars* of the Brahmaputra valley are thickly populated at present. The semi-permanent chars are also occasionally used for cultivation and grazing especially during winter. With the expansion of human habitation and concomitant development of human activities and infrastructure, the riverine char landscapes are getting modified into some unique cultural landscapes. The char landscapes of the valley are the last niche for the land-hungry peasants (Bhagabati 1999). The thatchroofed houses built mainly from the local resources, katcha roads, poor transport and communication networks, lack of civic amenities, high population growth and density, high mortality rate, imbalanced sex ratio and low literacy are some of the common features of the char areas of the valley (Table 5). The high growth of population and settlements in the char areas forced the people to occupy the available land even if it lies below the normal flood level (Barthakur 1978). The physical vulnerabilities render the char-dwellers socially vulnerable and politically marginalized (Lahiri-Dutt and Samanta 2014). Because of lack of other natural resources, people of the char areas intensively use the agricultural lands for raising as many crops as possible. Thus, with the growing demand of the rapidly expanding population, some infrastructural and institutional facilities like roads, markets, schools, dispensaries and electrification are coming up particularly in the permanent chars which have together contributed towards emerging a new cultural landscape in these remote but sensitive areas of the valley.

Although recent in evolution, cultural landscapes of the *chars* are getting rapidly modified. The modification has been basically determined by the peculiar physical make-up of the *chars* and the ability of the dwellers to adapt to the changing situation. More recently, the growing interaction of the *char*-dwellers with the neighbouring indigenous people on the one hand, and the increasing relation with the urban culture on the other, have perceptibly strengthened the process of ecological and cultural transformation in the *char* areas (Bhagabati 1994a).

The *char*-dwellers traditionally know how to cope with the erratic and uncertain environment of their habitats and have designed their lifestyle in such a way that they can easily adapt to the rhythms of the river. They usually welcome low magnitude floods as these enhance the natural fertility of land by adding fresh alluvium and increase the fish population in the wetlands and the river itself. The *char*-dwellers generally construct their houses and other household materials with the locally available resources (Fig. 6). The number of houses and household assets per family are few. They build their houses mainly keeping in view the local flood and erosion risk. Therefore, their house types, homesteads and settlement patterns clearly reflect the local ecological and fluvio-geomorphic conditions. The people through their attachment and experience know almost accurately the nature of fluctuation of the river water during the year. They usually remain alert during the monsoon and keep small boats and banana-craft (*bhel*) ready during the summer months to transport

Turne Poundarpuire and				a varied and and	(
District	Number of family	% of family below poverty line	Sex-ratio	Literacy rate	Educati	Educational institutions	titutions		Medica	Medical facilities
					LP	ME	SH	UG	PHC	Sub-centre
Kamrup	27,874	61.99	974	15.16	107	17	5	1	-	8
Nalbari	16,103	68.36	957	16.24	61	18	12	I	4	5
Barpeta	45,792	67.00	948	17.63	288	80	28	7	5	20
Goalpara	30,136	68.50	955	13.65	142	58	14	5	-	14
Bongaigaon	27,813	67.50	930	12.46	103	39	6	-	5	5
Dhubri	109,748	69	988	14.46	315	116	37	7	14	23
Darrang	29,617	66.94	917	12.34	105	Ξ	æ	5	5	6
Morigaon	18,129	67	906	18.50	43	S	7	1	5	6
Nagaon	17,920	66.79	982	17.59	28	6	2	I	4	4
Jorhat	35,316	64	962	60.55	423	138	90	8	8	16
Sonitpur	23,428	68	939	16.93	88	29	4	1	-	7
Lakhimpur	23,096	69.02	956	18.50	93	35	10	I	1	6
Dhemaji	19,112	70.98	912	15.69	40	~		I	1	4
Tinsukia	10,670	68.90	931	14.00	16	Ξ	-	1	I	6
Total	4,34,754	67.88	958	19.31	1852	574	218	18	52	132
<i>Source</i> Directorate of Char <i>Note</i> LP = Lower primary,	rate of Char Areas Dev ver primary, ME = Mi	<i>Source</i> Directorate of Char Areas Development, Govt. of Assam <i>Note</i> LP = Lower primary, ME = Middle elementary, HS = Higher secondary, UG = Undergraduate, PHC = Primary health centre	ndary, UG =	Undergraduate,	PHC = 1	Primary	health c	centre		

of the Brahmannitra vallev districts Assam 2002–2003 0.10 **Table 5** Demographic and social characteristics of the *char* A. K. Bhagabati and N. Deka



Fig. 6 a A house made of locally available resources, b Family members engaged in preparing mats. Picture credit: Abani Kumar Bhagabati

their families and other household goods and livestock to safer places like roads, embankments and raised earthen platforms. The *char*-dwellers continually gamble with nature, coping with the dynamism of the river, and try to opt for the best of their vulnerable and marginal environment. At the margins of the mainland, the *char* areas continue to remain at the periphery of social, political and economic development (Lahiri-Dutt and Samanta 2014).

7 Agricultural Scenario

The intensive agricultural practices with a peculiar cropping pattern performed by the hard-working peasants form an important component of the cultural landscape of the char areas. The vast tracts of char-chaporis, which used to remain fallow and waste before human habitation, have now been transformed into agriculturally productive zones of Assam. The immigrant farmers cleared jungles for settlement and cultivation in the char areas. During 1921-31, the immigrants brought under farming about 5,42,000 acres of uncultivated land and added another 2,51,000 acres during 1931–41 (Seikh 2005). It is seen that unlike the built-up flood-free areas, the cropping pattern in *char-chaporis* is determined by the flood cycle. Generally, during summer, almost all the agricultural fields in the flood-free areas of the state's mainland are put to intensive cultivation for raising various summer (kharif) crops, while in winter, most of these fields remain fallow due mainly to lack of irrigation facilities. The picture of the agricultural landscapes is, however, almost opposite in the *char* areas. The peasants try their best to use the agricultural land to the maximum possible extent during winter by cultivating a number of winter (rabi) crops to compensate for the loss of crops during summer due to flood (Deka 2013) (Fig. 7).

All the agricultural fields of the *chars* in winter and pre-monsoon season remain under intensive cultivation of *rabi* crops, such as mustard, wheat, black gram, lentil, coriander, sesamum, linseed, tobacco, *khesari* and a variety of vegetables and spices. Jute cultivation was extremely limited in Assam before the latter half of the nineteenth

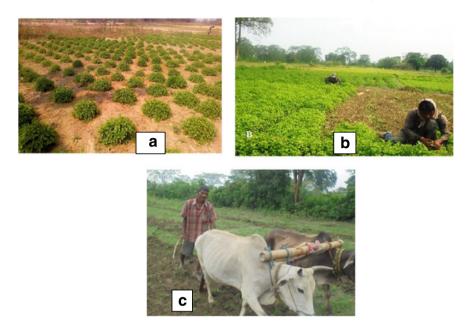


Fig. 7 a Plantation of a herb (*Podina*) for commercial purpose, **b** A field with full-grown herbs. In the background rice field and some valuable trees are seen, **c** Tilling land for *rabi* cropping. Picture credit: Suraj Bhandari

century when the immigrants introduced their cultivation in Goalpara district. In 1902–03, jute was cultivated in 25,850 acres of the valley, out of which 25,000 acres were in Goalpara district alone (Seikh 2001). Subsequently, the cultivation of jute was diffused to other districts of Assam, particularly in Nalbari, Barpeta, Kamrup, Nagaon and Morigaon districts. The summer rice (*boro dhan*), which is generally not much cultivated by the indigenous peasants of the floodplains, is extensively cultivated by the immigrant peasants instead of winter rice (*sali dhan*).

The *char*-dwellers usually do not store the harvested crops in the granary for long because of the flood risk. Most of them sell their crops in the market keeping a small amount for their own consumption. Again, unlike the flood-free or occasionally flood affected areas of the valley, all the members of the peasant families including the old and young ones in the chronically flood affected areas of the *chars* directly participate in the farming activities. The peasants have traditionally adapted their farming practice to rainy summer and the dry winter. Small and fragmented agricultural landholdings, higher degree of cropping intensity and involvement of large labour force are some of the important characteristics of the *char* agro-ecosystem. The small size and inequality in agricultural landholdings are due to not only the practice of the law of inheritance but also the degradation of land caused by flood and erosion. All these are clearly reflected in the pattern of land use at the village level (Fig. 8).

Located on the south bank of the lower Brahmaputra, the Ram-Hari *char* village, for example, presents a representative picture of the contemporary land use pattern

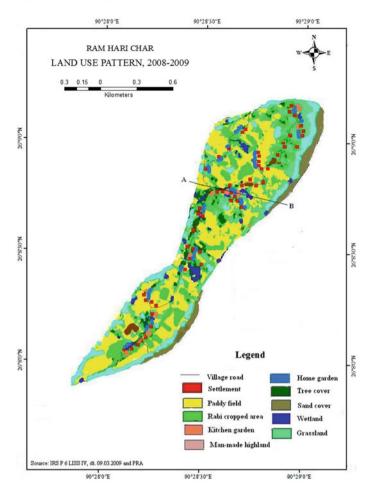


Fig. 8 Land use pattern of Ram Hari char village (Source Deka 2013)

in the *char* areas (Deka 2013). This village is inhabited by the people of immigrant origin. With a total population of 997 (2010) distributed in as many as 172 households, this village is geographically isolated and economically very poor. Of the total working population of the village, 89.29% are engaged in agriculture. The secondary and tertiary sectors are yet to gain ground in the village. Thus, the land use in the village is dominated by agriculture and allied activities. The surficial ordering of landscape features ('toposequence') observed along a cross-section within the village reflects how the inhabitants have responded to the riverine environment based on their own cultural background and their interaction with the indigenous people (Fig. 9).

Until the beginning of 1980s, the farming practice in the *char* areas was completely eco-friendly as the entire agricultural system used to depend upon the traditional

all de la	19403 pues	Sendy	1	I.	Fuel wood, fruits, building materials, etc	Sparse trees, human intervention, small size
the the state	puel ssero	Sendy	Rain water	t .	Fodders, cons- truction mate- rials	Low production, poor management, small size
	Pond	cley Silt, send,	Rain water (surface runoff) flood	1	Fish forming bathing washing unigation, etc.	flood wash, no water in winter season, low productivity
with for the	n9brez 9noH	Ybrae2 leivulle	Rain water	Ľ.	Cash crops, fruits, wood trees, etc	Attacked by pests, insects, animal and disease
	Кіссінен gərden	Sandy	Tube well, nvet water	Multiple Brüqqorə	Vegetables	Small size of land holding. flood demage, sandy soil
周	Settlement	Vone2	Tube well, river water	I	BrisuoH	Poor housing low samitation flood and cyclone effect, lack of all sorts of civic amenities
72.92J	Tree cover	ybræ? lervulle	Rain water	I	Fodders, fuel wood construc- tion materials	Sparse trees, human intervention, small size
. F. Y. Y. A.	Rabi erop field	Sandy altuvial	Rain water (fronu turee) Shallow tube Well Well	Multiple cropping	Cultivation of tabi crops	Leck of ungation, pest and disease attack
what the a rear filled	Paddy field	Sandy altuvial	Rain water (Surface runoff) river water	cropping Double	ת השור כיסף ש בעתעהני, נפטו כנסף ש שימנפר כיסף ש	Lack of inrigation, small sue of land holding weeds, pest and disease attack long distance from home
Agroecological	¥ /	Soil	Water source	Cropping pattern	Use	Problems

Fig. 9 Toposequence of land use in Ram Hari char part 2 village along the cross-section AB as shown in Fig. 8 (*Source* Deka 2013)

farming practice without any application of chemical fertilizers and pesticides. But during recent years, due to the growing demand particularly for vegetables, increasing cost of production and the risk factor associated with traditional farming, the peasants have slowly switched over to mechanized farming using modern inputs. Such modernization of the farming practice during recent years has its manifestation

æ

already in the riverine ecosystem mainly in the form of aquatic and terrestrial biodiversity loss (Deka 2013). This is clearly evident in the shrinkage of fish variety in the rivers and wetlands and helpful microbes and herbs in the agricultural lands.

8 Mode of Movement

In the pre-Independence period, because of the poor transport and communication network, *char-chaporis* of the Brahmaputra valley remained by and large detached from the rest of Assam. This kind of isolation has made *char-chaporis* socially and culturally distinct from the mainland; as a result, the process of cultural diffusion to and from these areas has been undesirably slow. Even now, the frequency and length of metalled roads in these areas is very less, which makes the movement of goods and people very difficult. The *char*-dwellers still use the country boats, motorboats (*bhutbhuti*), banana raft (*bhel*) and buffalo-cart as traditional means of transport to move from one *char* to the other and to the urban and market centres of the mainland (Fig. 10). For movement over land, the *char* people still use buffalo and bullock carts and *thela* ('hand-pulled cart') to carry people, agricultural products, fodder for domesticated animals and building materials. The scene of carrying old and sick



Fig. 10 a A country boat to a destination, b Some passengers with bicycles over a country boat across a channel, c A buffalo-cart towards a bamboo bridge over a channel. Picture credit: Abani Kumar Bhagabati

people by *thela* and bullock cart is not rare in the *char* areas. Mainly because of the poor transport and communication, organized commercial centres or markets are yet to come up here. This has led to creation of a group of middlemen who reap the major benefits arising out of products generated by the hard-working peasants. Importantly, after the 1983 general election, which was held in the peak of the Foreign National Deportation Movement in Assam costing hundreds of human lives, the *char* areas experienced a remarkable change in their infrastructural and institutional scenario. During this period, due to growing political awareness among people and consequent organized efforts, road networks in the Brahmaputra plain have been extended and developed to connect even the most inaccessible parts of the riverine tract (Bhagabati 2005). Thus, the modes and intensity of movement of people and goods in the *char* areas have acquired new patterns and dimensions.

9 Conclusions

The foregoing discussions present the natural and cultural scenario of the *char* areas of the Brahmaputra River in Assam which constitute an integral part of the river valley and contribute to the growing political upheaval experienced by the region in the changing socio-cultural context of Assam and the entire Northeast India. The emerging landscapes of the *char* areas, including the agricultural practices, represent some highly sensitive but traditionally evolved territories characterized by unprecedented integration of nature and human culture in mutually responsive ways and means. However, the rapid growth of population, particularly among the non-indigenous groups of people during the recent period on the one hand, and the relative isolation and backwardness of the *char* areas on the other, have given rise to a situation, more or less detrimental to the environmental and social settings of these unique habitats. The changing scenario, as reflected in the cultural landscapes including the overall mode of life (genre de vie), is a matter of serious concern so far as the sustainability of the traditional nature-culture relation in the area is concerned. However, the entire issue of ecological evolution, human habitation, land use and landscape modification in the char and chaporis of a great river like the Brahmaputra has been immensely fascinating and thus attracts careful attention of geographers and other scholars interested in the field. It is expected that further investigation may unfold certain interesting features and facts regarding the changing humanenvironment relationship in such a fast growing but ecologically highly sensitive riverine area of the Northeastern Region of India.

References

- Abdus Sahid HM (1993) Some aspects of ecological and human characteristics of the Brahmaputra char areas, Assam. Unpublished project report, OKD Institute of Social Change and Development, Guwahati
- Ahmed SZ (2005) Erstwhile East Bengal origin Muslims in the Brahmaputra valley, Assam: enforcement of line system and struggle for existence (1920–1950). Socio-economic life of the char-people, Assam, Char Areas Welfare Society for Socio-Economic Research, Assam, pp 50–54
- Ali M (2005) Population, poverty and unemployment of the people of *char* areas of Assam. Socio-economic life of the char-people, Assam, Char Areas Welfare Society for Socio-Economic Research, Assam, pp 38–46
- Barthakur M (1978) The Brahmaputra—'a myth—a gift—a source of sorrow'—its physiognomical interpretation. Souvenir, Mid-term Symposium on Harnessing the River Brahmaputra, Guwahati, pp 6–15
- Bhagabati AK (1999) Cultural adaptation in the river islands of the Brahmaputra, Assam. North East Geogr 30(1 & 2):35–49
- Bhagabati AK (1994a) Islands in the river. Down to Earth 3(11):34-36
- Bhagabati AK (1994b) The *chars* of Brahmaputra valley, Assam: challenges for sustainable development. Socio-economic life of the char-people, Assam, Char Areas Welfare Society for Socio-Economic Research, Assam, pp 1–8
- Coleman JN (1969) Brahmaputra river, channel process and sedimentation. Sed Geol 3(2–3):129–239
- Dahiya B, Thaitakoo D (2012) Waterscape habitats in Thailand: art of survival vis-à-vis climate change. Landscape Archit China 3:180–185
- Deka N (2005) Fluvio-geomorphic characteristics of the chars of Baghbor and its adjoining areas in the Brahmaputra river, Assam. Unpublished M.Phil. dissertation, Gauhati University, Guwahati
- Deka N (2013) Agroecosystems in the Brahmaputra valley, Assam: dynamics and sustainability. Unpublished Ph.D. dissertation, Gauhati University, Guwahati
- Dikshit KR, Dikshit JK (2014) North-East India: land, people and economy. Springer, pp 130-132
- Goswami DC (1985) Brahmaputra river, Assam, India: physiography, basin denudation and channel aggradation. Water Resour Res 21(7):959–978
- Goswami DC (1989) Perspectives on braided river channels. Geographical Horizon, Gauhati University, vol 1, pp 18–20
- Goswami DC, Dutta PC, Kalita NR (1991) Braiding of the Brahmaputra river channel in Assam: a fluvio-geomorphological enquiry. North East Geogr 23(1 & 2):52–59
- Goswami DC, Deka H, Barthakur P (1994) Fluvio-sedimentary environment of a channel bar in the Brahmaputra river near Guwahati. North East Geogr 25(1 & 2):88–98
- Guha A (1977) Planter raj to swaraj. People's Publishing House, New Delhi
- Guha A (2000) Zamindarkalin Goalpara zilar artha-samajik awastha. Natun Sahitya Parishad, Guwahati
- Jackson RH, Hudman LE (1990) Cultural geography: people, places and environment. West Publishing Company, New York, pp 21–23
- Lahiri-Dutt K, Samanta G (2014) People and life on the chars of South Asia—dancing with the river. Cambridge University Press India Pvt. Ltd., Cambridge House, New Delhi, pp 18, 135, 148–149
- Leopold LB, Wolman MG (1964) Fluvial Processes in Geomorphology. S. Chand and Co., Ltd., New Delhi, pp 284–293
- Robinson CT, Tockner K, Ward JV (2002) The fauna of dynamic riverine landscapes. Freshw Biol 47:661–667
- Sarkar MH, Haque I, Alam M (2003) Rivers chars and char dwellers of Bangladesh. Int J River Basin Manag 1(1):61–80

- Seikh A (2005) Problems of land revenue and *patta* in the char areas of Assam. Socio-economic life of the char-people, Assam, Char Areas Welfare Society for Socio-economic Research, Barpeta, Assam, pp 18–20
- Stanford JA (1998) Rivers in the landscape: introduction to the special issue on riparian and ground water ecology. Freshw Biol 402–406
- Tockner K, Ward JV, Arscott BA, Edwards PJ, Kollmann J, Gurnell AM, Petts GE, Maiolini B (2003) The Tagliamento river: a model ecosystem of European importance. Aquat Sci 65:239–253
- Tockner K, Paetzold A, Karaus U, Claret C, Zettel J (2006) Ecology of braided rivers. In: Gregory H et al (eds) Braided rivers, Special Publication of the International Association of Sedimentologists. Blackwell Publishing Ltd., London, pp 339–354
- Ward JV, Tockner K, Arscott DB, Claret C (2002) Riverine landscape diversity. Freshw Biol 47:517–539



Abani Kumar Bhagabati (b.1957), Professor in the Department of Geography, Gauhati University holds a Ph.D. degree on small-scale agricultural systems in the State of Assam, India. He is presently engaged in the study of riverine ecosystems of the Brahmaputra valley including the wetlands from geoenvironmental perspectives. He served as the President of North-East India Geographical Society (2016–19) and the Institute of Indian Geographers, Pune (2018–19).



Nityananda Deka (b.1980), assistant professor in the Department of Geography, Gauhati University, Guwahati, Assam holds a Ph.D. degree in the field of agroecosystems and its sustainability in a river valley region of India (the Brahmaputra valley, Assam). He is currently engaged in the study of rural systems including the periodic market systems of the floodplain environment of the Brahmaputra, Assam. Dr. Deka worked as a field investigator in a village study jointly conducted by his department and the CSEAS, Kyoto University, Japan.

Re-connecting Communities with Public Spaces: A Proposal for Rejuvenation of Sacred *Kunds* in the Historic City of Varanasi



Sarbeswar Praharaj

Abstract Public spaces are one of the most defining elements of a vibrant community and matured urban landscapes. Cities of the past and present have laid great emphasis on the provision of public spaces and defined the idea of livability through them. The city of Varanasi, which exhibits the continuity of human settlements and culture since 1000 BCE, is one of the unique destinations that show exemplary natural, architectural, artistic and religious expressions of traditional Indian culture blended with splendid public spaces and people. But uncontrolled urbanisation, coupled with weak governance and lack of awareness, has resulted in utter neglect and degradation of urban heritage and its associated spaces. This article intends to analyse the culture of public spaces in Varanasi, their use and their present state of decay through an in-depth case study investigation. This research contributes to the design development of a comprehensive vision for the restoration of urban heritage and conservation of immensely valuable public spaces that shape vibrant community life representing the culture and diversity of this great city and its people.

Keywords Public spaces · Urban heritage · Kund · Varanasi · Indian culture

1 Introduction

The term "public space" is generally defined as areas that are open and accessible to all groups, providing freedom of action, temporary claim and ownership (Carr et al. 1992). In urban planning, public space is traditionally designated as "open space", including the streets, parks, recreation areas and other outdoor spaces which are publicly owned and managed (Tonnelat 2010). In contemporary urban society, however, with the growing popularity of privately owned public spaces such as shopping malls, business plazas as interaction spaces. In an attempt to bridge this definitional problem, Ray Oldenburg coined the term "third places", which incorporate a

S. Praharaj (🖂)

Knowledge Exchange for Resilience, School of Geographical Sciences and Urban Planning, Arizona State University, Tempe, AZ 85281, USA e-mail: s.praharaj@asu.edu

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_7

great variety of public places that host the regular, voluntary, informal and happily anticipated gatherings of individuals beyond the realms of home and work and that are generally accessible by members of the public (Oldenburg 1989). The emphasis of this definition is on public access and activities, rather than ownership or management. Irrespective of their public or private ownership, public places universally act as breathing spots where people feel free and can interact with one another without any social barriers. They also offer a shared experience for people where they come, talk, exchange their thoughts, ideas and worries with one another, laugh together, cry together and make bonds and relationships with each other- which more than anything else becomes an experience to cherish. Such places are also essential for the betterment of society as a whole as they promote equality amongst people by being accessible for one and all (Praharaj 2014a, b).

In spite of a general consensus regarding the multidimensional values of public spaces, we have seen very little increase in the open space system in cities in recent decades. The stock of open spaces has not kept up with population growth, especially in older core cities, resulting in increasing pressure and threat of degradation of existing public spaces and the amenities that contribute to the livability of cities (Banerjee 2001). With an aim to augment the supply of public spaces, governments have started drawing favourable zoning guidelines for developers who intend to provide public interaction spaces within commercial development sites. These policies based on a presumption of "public spaces" instead of upholding the principle of open access to all citizens in public spaces leads to the creation of pseudo-public spaces (Southworth 2014) which treat people as customers and cater to economically advantaged. The challenge for future cities that aim at the preservation and development of public spaces is therefore not only of keeping up with supply and quality, but also creating accommodative public space for space needs of the forgotten (Kurniawati 2012).

Scholarly literature suggests that problems associated with public space are more cultural than physical. Tuan (1977) contended that public space in core habitats has deep cultural impressions which are defined by meaning, values and emotions assigned by people to places. These impressions, along with activities performed over a public space, amalgamate into a sense of place. Degradation of public spaces leads to change in user groups who in the majority of instances use and interpret the space differently. These layering and superimposition of culture over a space cause loss of original values and sense of place (Jorgensen and Stedman 2001). The recent revolution in communication and information technology has further aggravated this issue by isolating ourselves from interacting in public life and spaces as well as dramatically changing the activities performed over public space (Banerjee 2001; Southworth 2014). Therefore any attempts at reinventing public space would require a lucid understanding of original space values and need to address emerging cultural changes in the technological age.

Indian cities are blessed with abundant wealth in terms of urban heritage, cultural diversity and vibrant communities. Public space and heritage have a reciprocal link as they are often found attached to each other in Indian cities and attract local communities to live, play and pray around them. A strong attachment with religious feelings

and customs invites communities to perform even their recreational activities and societal interaction around temples, sacred water bodies and other religious footprints (Singh 2009). This cultural dependence on natural and built heritage assets has given shape to vibrant public spaces around them, forming a real sense of community. But over the last couple of decades, rampant urbanisation has exhausted the capacity of the public spaces resulting in rapid degradation of these historic landscapes (Licciardi and Amritahmasebi 2012). Issues of illegal encroachment and real estate developments over urban heritage assets have become a regularity, which leads to the extinction of these spaces. While the traditional systems of urban governance are struggling to address these issues (Praharaj et al. 2018a, b; Praharaj et al. 2013), there are indications of an emerging revolution shaped by activists, urban designers, planners, landscape architects and like-minded professionals that vow for a desire for revival of social interaction in old-style public spaces having rich cultural heritage. This chapter aids this attempt at rediscovering urban public spaces by analysing the current state of culturally significant public spaces in the historic city of Varanasi and proposes a renewal plan for Pushkar kund: a sacred waterfront public space in the city.

The research paper is structured in seven sections, including this introductory segment. Section 2 is titled 'research design' which includes objectives of this investigation and methodology adopted for the study. Section 3, "Varanasi: a brief city profile" deals with location attributes of the Varanasi city, its historical importance and demographic characteristics. Section 4, "Varanasi: A city of magnificent heritage, culture and public spaces attempt to list and classify heritage resources in Varanasi with a brief interpretation of each of the categories. This section also recognizes various forms of public spaces in the city and illustrates distinct activities and levels of place attachments in the different hierarchy of spaces. Section 5, "Degradation of kunds (English: sacred water pool) as public space: Case of Pushkar kund" is divided into two sub-sections. Firstly, an overview of existing conditions in and around the kunds is provided with documentation of their social implication, use and current state of decay. Consequently, a detailed case analysis of Pushkar kund is provided comprising of the location, the heritage value of the site, community setting around the *kund* and its utility as a public space. This section also pinpoints key issues that are resulting in the decay of the *kund* and challenging its value as a social space. Section 6, "integrated vision for the renewal of Pushkar kund" offers a vision for conservation of the water pool and development of its edge as a public gathering space through various design interventions, policy regulation and management frameworks. In the concluding section, significant outcomes from the study are listed along with a clear direction for future research.

2 Research Design

This research was carried out in two different phases over a span of one year and two months. In the first phase, the author, along with two other researchers visited Varanasi on 12–13 February 2012 to have a prefatory understanding of the city and

its various heritage sites. During this survey, discussions were held with multiple city stakeholders such as Varanasi Municipal Corporation, Banaras Hindu University, Shri Kashi Vishwanath Mandir Trust, Sri Anandamayi Maa Ashram and the general population to identify core issues of the city and possible action areas for research. This visit was also utilized to collect relevant secondary information on demography, land use maps, heritage lists drawn by multiple agencies and various planning documents that were earlier produced for the city. After this visit, a broad spatial, demographic and qualitative analysis was done to identify pointed research objectives that can address critical challenges facing the city. It was observed from this preliminary assessment that the inner-city area of Varanasi due to its highly compact built form lacks public interaction spaces that are further challenged by the inflow of massive tourist population. Issues of lack of management and conservation of heritage districts were also observed which had a negative impact on social gathering on these spaces. Three study objectives were identified to address these research problems, which is listed below:

- I. To provide a clear understanding of the diverse heritage resources and various levels of public spaces and their value for the local community in the historic city of Varanasi
- II. To investigate the nature and reasons for degradation of the local-level public spaces, taking the *kunds* (sacred water pool) as a case study and
- III. To develop an integrated vision for the restoration of *Kunds* and revival of their surrounding spaces as an active public gateway.

A detailed physical and socio-economic survey was carried out during the second phase of the research in the Pushkar *kund* area on 15–24 December 2012. The physical layout of the water pool and the urban fabric of its surroundings have been mapped and analysed through a primary survey. The value of these spaces and the profile of the local community using the space have been assessed through a socio-economic survey. The focus was on understanding the reasons for the degradation of these spaces over time and how indigenous solutions can be evolved to develop and sustain such unique landscapes.

3 Varanasi: A Brief City Profile

Varanasi, also known as Banaras or Kashi, is located in the Northern Indian state of Uttar Pradesh. The city is elevated at 80.71 m and situated along the left crescentshaped bank of India's most divine River Ganga. The city is administered by a municipal corporation having authority over an area of 82.1 km² (Fig. 1). The city of Varanasi, recording continuity of settlements and culture since ca 1000 BCE, is unique in the architectural, artistic and religious expressions of traditional Indian culture and is, even today, a living example of this trait. The city—in the past and in the present—is an exceptional testimony to living traditions—to be seen to be believed—in religious faith, rituals and myriad festivals, traditional and ancient forms of worship

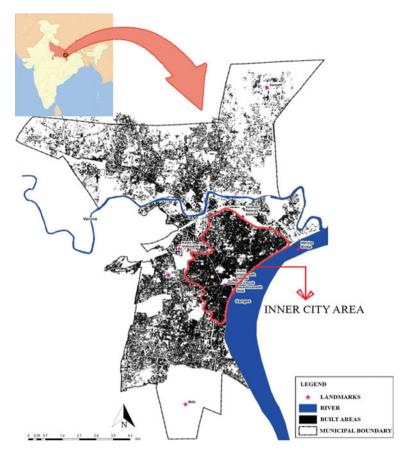


Fig. 1 Location map of Varanasi Municipal Corporation. Map credit Sarbeswar Praharaj

and belief that are still practised, in the varied expressions of asceticism, spiritual and meditative exercises, education, music, dance, handicrafts and art forms that still continue to be transmitted through generations. That is how the city represents a living urban heritage of universal value possessing historicity, continuity, traditionality and spirit of place (Praharaj 2014; Praharaj and Singh 2014).

The Municipal Corporation of Varanasi is home to approximately 1.2 million people spread across the city at an average population density of 14,598 persons per km². The inner-city area of Varanasi (Fig. 1) has a highly compact built form shaped by innumerous heritage structures and cultural landmarks. The sacred nature of this area invites a higher population density than the rest of the city. Singh (2007) observed that population density in the inner-city area reaches up to 20,000 persons per km², making it the most congested part of the city. Moreover, the location of magnificent riverfront ghats along the River Ganga and historic temples such as Vishwanath temple in this area attracts 40,000 tourists and pilgrims everyday which

goes up to 60,000 in festive seasons (Singh 2007). High population density, coupled with a large inflow of visitors, puts enormous pressure on community infrastructure and public space systems in the city. The latest report from The World Bank found that the decadal population growth rate had fallen in this inner-city area from 30% in the year 1981 to 8.5% in 2011. It is suggested that a record 60% decrease in parks and open ground from 2001–2011 and crumbling physical infrastructure has resulted in deteriorating living conditions forcing a shift of population from inner-city areas to its peripheries and even to other cities (The World Bank & Cities Alliance 2014).

4 Varanasi: A City of Magnificent Heritage, Culture and Public Spaces

4.1 Heritage Resources in Varanasi

The natural and built heritage of the city of Varanasi is vast, vivid and unique. For the ease of listing heritage, this research divided those into man-made and natural. The man-made heritage again is classified as—tangible and intangible (Fig. 2). This classification is much different from the operational guidelines provided by UNESCO in the year 2002 and 2005, which classifies heritage on the basis of natural and cultural criteria. Although the natural criteria are agreed upon in this paper, the cultural criteria are refined further into tangible and intangible man-made resources to address Varanasi's uniqueness and diversity of cultural heritage. This was particularly essential as UNESCO specifies that cultural heritage such as events, or ideas, literary works or music should be preferably used in conjunction with other tangible assets

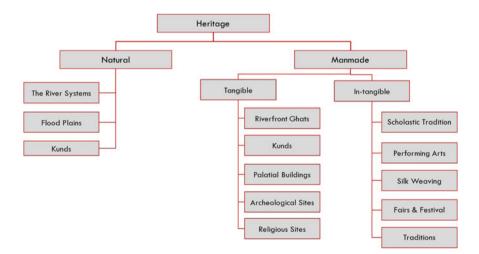


Fig. 2 Heritage categorisation for Varanasi. Figure credit Sarbeswar Praharaj

and should not be defined exclusively by virtue of those traditions. Varanasi is one city that is defined by its flavour, fragrance, scholastic traditions and even music which cannot be associated with tangible assets and those traditions by themselves showcase outstanding universal significance. The detailed heritage classification for Varanasi as an outcome of this study is presented in Fig. 2.

Varanasi represents a unique natural landscape along the River Ganga which flows from north to south for about 6.8 km, the city of Varanasi has taken semi-circular form along its left bank. The eastern bank of River Ganga is a vast flood plain, an integral part of the unique natural ecosystem. The riverbank on the city side is the meeting point of a magnificent human construct with architectural grandeur in the form of a series of traditional palatial buildings. On the other side, perennial flow of the River Ganga and its infinite natural beauty and purity provides uniqueness in the whole course of the enormous River Ganga Valley.

The tangible heritage of Varanasi city includes riverfront ghats (stairways to the riverbank), kunds, palatial buildings, religious structures and archaeological sites. The riverfront heritage zone is spread across 200 m deep into the city from the bank of River Ganga. A total of eighty-four ghats stretch over a length of 6.8 km along the bank of the River Ganga, from the confluence of River Varuna in the north to the confluence of the River Asiin the south. Kings and lords from various parts of India built lofty palatial buildings on the riverfront between eighteenth and twentieth centuries which still stands as testimony to India's heritage diversity and glory. The riverfront ghats in the city of Varanasi characterize one of the finest specimens of monumental architecture deeply rooted with commonplace activities of the devout people, thus symbolizing the heritage tradition of India.

Kunds are sacred water pools used for cultural rituals. In Varanasi, many such kunds exist which are referred to in the Mahabharata (second century BCE) and which still attract a large number of pilgrims, especially during festivals. Although literature states that Varanasi had more than 150 such water bodies in the past (Singh 1994), currently only about 25–30 major kunds are found in the city.

Varanasi is a mosaic of various community groups and traditions. In the city alone, there are over 3300 Hindu shrines and temples, about 1388 Muslim shrines and mosques, 12 churches, nine Buddhist temples, three gurudwaras (Sikh temples), three Jain temples and several other sacred sites and places (Singh 2009). Here communities with different religious expressions have their distinct traditions and they together form the harmonious life and culture of the city called 'Banarasian'.

Scholastic tradition and performing arts have been the backbone of the traditional intangible culture of Varanasi. Various fairs, festivals like Ram Leela, Dev-Deepawali has and the like have always provided a distinct flavour of Varanasi. Silk weaving practice and Banarasi sari are also among the major by-products of the city's rich culture and traditions.

The Master Plan for Varanasi (1991–2011) identified five urban heritage zones in the city based on their distinct characteristics and scope for preservation. This research mapped the footprint of heritage structures in the city with a superimposition of the heritage zones over them as delineated in the master plan (Fig. 3) to provide an eloquent spatial understanding of the heritage setting in Varanasi.

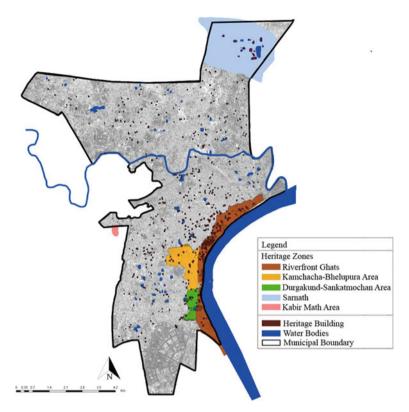


Fig. 3 Heritage footprints and various cultural heritage zones in Varanasi. *Map credit* Sarbeswar Praharaj

4.2 Forms of Public Spaces and Community Realm in the City of Varanasi

Heritage-scapes and public space in Varanasi are inseparable from each other due to strong religious beliefs and cultural practices followed by the local community. Public space systems in the city have been historically concentrated around religious footprints especially along the *ghats* of holy River Ganga. Public spaces in this historic settlement are not only the breathing spaces of the city but are the places for the interplay between people, activities, movement and urban forms. These are the spaces where experiences are created, ideas are invented and tradition is continued through the blending of spaces and people (Praharaj 2014). Based on their location and scale of activity, three distinct levels of public space are found in Varanasi as outlined in the following sections.

4.3 City-Level Public Spaces: Riverfront Ghats

City-level public spaces may be defined as the primary and central public places in cities. These are the public spaces present at a much higher level of the settlement and reflect the core cultural identity. These spaces are of utmost importance to the settlement and represent something to which the whole area can relate, something that closely bonds them with their cultural and social identity. Banks of River Ganga, especially the Ghats in Varanasi, have been widely considered as public spaces because of their utility for the entire community across the city since time immemorial. It is a classic example of an evolved public place. Although to begin with the ghats were merely platforms made out of river deposits, by evolution these spaces are regenerated as concatenated steps. Today the ghats are of immense attraction to tourists and travellers. The ghats are always bustling with religious, recreational and artistic activities stretched over an area of five km. This is one part of the city where there is no bar among caste, class or religion and the city acts as one community, one entity.

The ghats are associated with strong religious significance as devotees hold various ritual activities on them, acting as a gateway to holy River Ganga. In the mornings, people gather here for bathing and devotion to gods of their belief, in the afternoon people are busy performing rituals and in the evening, people attend Aarti (offering to god with lighted lamps). The small stalls around the ghats sell many items like small figurines, flowers, incense sticks and the link, which attract not only the local public but also the tourist alike. Visitors often take a ride in boats at different times of the day. During the full moon, a boat ride is an exciting event with unique experiences on the River Ganga. This is perhaps the best place where one can sense the culture and tradition of India. It is India on small scale (Eck 1982).

The unique crescent-shaped arc of River Ganga has attracted people from various parts of the country to come, settle and make their own distinct imprint along the 6.8 km bank of the river as expressed in the architectural expressions and through rich cultural landscapes. From sunrise to sunset, the cultural landscape along River Ganga is dominated by rituals and religious activities (Fig. 4) that act as a supportive system for other profane, economic functions in the city. The view of the waterfront from the river is undoubtedly a unique specimen of architectural ensemble and majestic landscape setting. These riverfront ghats form the most accessible and welcoming public space that is an integral part of community life and shape the lifestyle of local communities.

4.4 Sub-City-Level Public Spaces Surrounding Temples and Kunds

Sub-city-level public spaces are present on a smaller scale compared to that at the city level, but they still form an essential aspect of the cultural identity of the city. *Kunds* and their edges offer the most lively and sacred public spaces and activity hubs at the

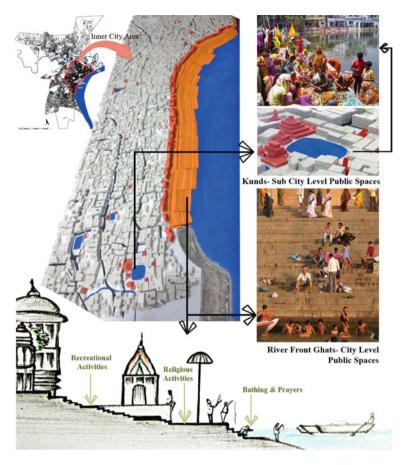


Fig. 4 City and sub-city-level public spaces in Varanasi. Map and picture credit Sarbeswar Praharaj

local level. These *Kunds* have a very distinct effect on the lives of people at the subregional level. Apart from their cultural and religious importance, these *kunds* also act as places where the women often carry out some household chores (e.g. washing clothes) and thus interact with one another. These *kunds* act as transition space as it gives the people a change of pace from their usual hectic schedule. They even serve as places of cultural importance as all the important festivities and community gatherings are held around these areas (Fig. 4). These places help in establishing a mutual understanding between the people and make them feel a sense of equality.

4.5 Neighbourhood—Level Spaces and Vibrant Streetscapes

A vast majority of streets in the core and inner-city area of Varanasi are multifunctional. Apart from their basic use as circulation for pedestrians, they also act as commercial spaces for small stalls and informal shops. These places very well make way for effective interaction between the different people at household doorsteps. The streets of Varanasi also act as open workshops where traditional artists, painters, musicians and artisans share space and exhibit their innovative acts expressing the richness of the local culture. These activities make these inner streets full of life and people portraying a unique experience for visitors. Bustling nature of these streetscapes creates a sense of security and shapes positive urban spaces, especially for women. Stories and myths are all in the air when we talk of organic streetscapes of Varanasi.

5 Degradation of *Kunds* as Public Spaces: Case of Pushkar *Kund*

5.1 An Overview of Existing Condition in and Around Kunds

There are as many as 30 kunds spread across the city of Varanasi. These kunds were built by different kings over a period of 2000 years. They were once considered sacred pools, mostly interconnected in the ancient city, where Yakshas (nature-spirits, usually benevolent, who are caretakers of the natural treasures hidden in the earth and tree roots) were worshipped. A comprehensive analysis of the Yakshas undertaken by Ananda Coomaraswamy extracted from the philosophical texts of the Upanishads found a deeper association of the Yakshas with the water cosmology and Hindu belief system (Coomaraswamy 1993). Although this cultural practice along the kunds in contemporary times has little significance, these water pools still act as sacred sites providing pristine ware resources to local people.

The local communities residing in the catchment of these kunds use the water pools for performing various household chores like bathing, washing clothes, washing utensils, etc. Significantly, most of these water bodies have temples located on their edges that underline the sacred nature of these sites. These sacred connotations attract various religious activities and festivals all around the year. These are also living organs of the city where people take a breath of fresh air in highly congested neighbourhoods. Ease of access to these spaces makes them frequently visited and used by the local community in comparison to city-level public spaces. The degree of interaction and bond among the people is also higher due to the increased frequency of meetings. These spaces are considered as multiple hearts of the city where people play and pray.

Because of rampant spatial growth of the city, encroachments have reduced the size of these water bodies; in many cases, they have been wiped out from the map.

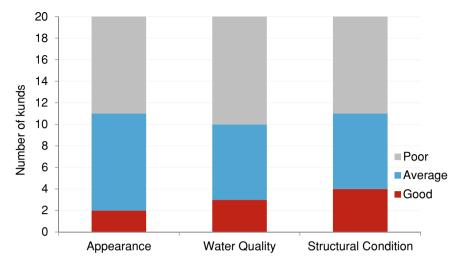


Fig. 5 Condition assessment of the existing Kunds. Figure credit Sarbeswar Praharaj

Over the years these sites have also become important tourist destinations, which have stressed the bearing capacity of these sites and led to the emergence of a new cultural polemic over the space culture and core activities. Lack of planned physical infrastructure and utilities has resulted in open draining and sewage flow into these water bodies and these spaces are often used as open dumping sites. Lack of awareness among the community, especially the present generation about the value of these spaces has coupled the issues relating to degradation and dilapidated condition of these resources (as shown in Fig. 5). There have been attempts from local authorities to address these issues, but little progress has been made towards the development of a holistic renewal strategy for management and protection of these sites.

5.2 A Detailed Case Analysis of Pushkar Kund

Located in the southern part of Municipal Corporation in Bhadaini area, Pushkar kund is one of the oldest inland water bodies in the historic city deep-rooted in mythology and religious sacredness. The site records the history of ancient rituals of ancestor worship and religious cleanliness and a cultural symbol having an association with Brahma (the god of creation) (Singh 2016). A temple of Lord Bramha is located on the western edge of this kund, which is a replica of the sole Bramha temple found in Pushkar town of Rajasthan state. The much of history of the Pushkar kund is also influenced by the River Asi which passes by it before meeting River Ganga in Asi Ghat area. The link with River Asi is historically important because the name of the city Varanasi is derived from the name of River Varuna and River Asi–the two tributaries of mother River Ganga (Cunningham and Sastri 2002). It is also believed that Asi Ghat and Pushkar kund were the areas where the famous Indian poet-saint, Tulsi Das had lived a large part of his life and written the much-celebrated Ramcharitmanas before entering the abode of immortality and eternal bliss in 1623 A.D. at Asi ghat in Varanasi (Sivananda 1944). The pilgrimage circuit of Varanasi popularly known as Panchakroshi yatra (procession) which represents the cosmospatial mandalic territory (kshetra) of Kashi (alternative name of Varanasi) passes by the Pushkar kund inviting thousands of pilgrims during the specific days of the yatra. Overall, Pushkar kund epitomizes a fascinating blend between natural heritage, built monuments and intangible cultural traits which makes this site a unique landmark.

Based on the community setting around the kund and their interdependence with this water body, an immediate influence area was delineated during the study. The boundary of influence was also determined by circulation patterns around the kund and positioning of heritage landmarks around the site. The central access to the kund is from the Asi road, which runs along the western side of the influence area. Bramha temple is located a few meters ahead into this entry point along the edge of Pushkar kund. The catchment of the kund is primarily under residential and religious use. Nearly 41% of the identified kund influence area is under residential use with the majority of buildings going upto one level above the ground floor. The western part of the kund catchment is predominantly used for religious activities which include Raghav temple complex alongside the historic Bramha temple. The land use setting around the Pushkar kund is illustrated in Fig. 6.

The bank of Pushkar kund is full of activities all day with unique practices performed in specific seasons and celebratory days. The most important among everyday activities are various religious chores performed in Bramha temple and Raghav temple, including puja (the act of worship) during the day and aarti (in which lights with wicks soaked in ghee are lit and offered to deities) in the evening. During Kartik Poornima (full moon) hundreds of pilgrims take a holy dip in this kund to purify their life and soul and offer prayers to gods. Dev Dipawali (festival of lights of the gods) is one of the most celebrated days of the year when the local community come together and light up the Bramha temple and the banks of the kund, transforming the area into a spectacular cultural showpiece. DalaChath puja and Mat Kadva puja are also celebrated on this site which is attended by specific community groups. Alongside these mainstream religious practices, various cultural and language training activities take place on a daily basis, which includes educational and inspirational training given at Shri Shitaldas Akhada and Sanskrit lessons in Bramha temple.

The kund also acts as a public interaction space for the local community and its water resource supports various commonplace household activities such as bathing, washing vessels, fishing, etc. The community life in the area revolves around the kund offering multiple utilities to its immediate population. On the other hand, the space in and around the kund is shaped by the people who live and use the kund and its banks. Whether it is playing cricket in the morning or flying kites on the edges of the kund or gathering for a political discussion at the tea shop and playing cards in the evening on the platform of the tree in front of Bramha temple, the residents of the area have their impressions on the site in their own unique ways. This amalgamation

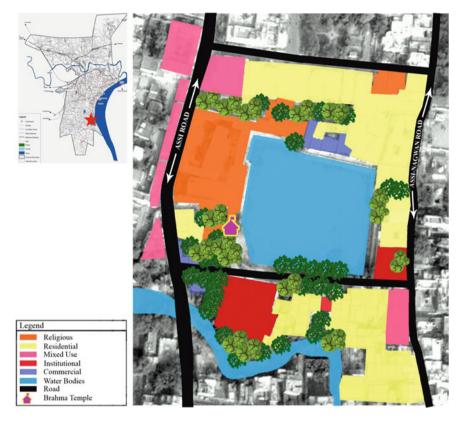


Fig. 6 Land use setting around the Pushkar kund. Map credit Sarbeswar Praharaj

of religious, spiritual and commonplace daily activities over this space exhibits the true expression of Kashi culture in its best possible form.

Although the sacred kund is an integral part of people's lives in the surrounding community, there seem to be several management issues and a lack of awareness about the value of the space that is rapidly degrading this heritage asset. Indepth assessment carried out as part of this research through primary survey and documentation depicts the following key issues:

The kund as a result of indiscriminate use for activities such as cattle bathing, channelling of wastewater and dumping of solid waste over the years has become highly polluted and hazardous. Presence of various chemicals in the water, lack of regular cleaning and direct runoff from nearby households has resulted in eutrophication in the pool (as shown in Fig. 7) which has turned a holy kund into a stinking pond. A clear lack of sincerity and a sense of responsibility towards protecting this invaluable ecological resource among the local residents was observed during the study. Another issue observed during the survey was ill-defined edges of the kund and vertical walls along the southern banks of the kund, which makes it extremely



Fig. 7 Eutrophication and steep walls in Pushkar kund. Picture credit Sarbeswar Praharaj

difficult for women, children and elders to access the holy water. Historically the stairs to kunds elsewhere act as multidimensional spaces inviting various religious and recreational activities which shape the culture of the space. But in Pushkar kund lack of stairways to water limits the activities around them and poses safety issues to people from non-agile age groups.

As discussed earlier, Bramha temple is one of the iconic landmarks located on the bank of Pushkar kund that attracts devotees and tourists due to its religious importance. Location of temples along the bank of the kunds is a common phenomenon in Varanasi, which is a symbol of sacredness and holy character of these sites. Unfortunately, lack of conservation of these temples has led to a serious threat of degradation and even extinction in some cases. Bramha temple in Pushkar kund is no exception. During the survey, it was observed that this sacred landmark had become structurally weak and the walls were facing erosion. The degrading nature of this temple is not only a threat to the heritage and cultural glory of this place but also influencing a reduction in tourist flow and public activities.

This research found encroachment at the main access to the kund, which has reduced the visibility of the water pool and temple from the Asi road. The road on the southern edge of the kund, which acts as a central circulation route was found to be narrow with frequent obstruction due to the unplanned spacing of electric poles, tube well and open public toilets. Except for the southern edge of the kund, none of the other sides of the water pool can be accessed by the public due to nonavailability of roads and building encroachment especially from the eastern side of the kund. Lack of legibility of the site from its main access, unsuitable arrangement of utilities and limited circulation around the kund has reduced the extent of public space, transforming the site into an uninviting space and challenging the scope for community interaction at large.

Sanitation and safety were highlighted as significant concerns by residents during the field investigation. The neighbouring community around the kund has not been provided with basic solid waste and sanitation infrastructure by the local government resulting in open dumping of solid waste in the water pool (Fig. 8). Open household wastewater drains were found that are channelled directly into the water pool that



Fig. 8 Solid waste open dumping along *kund* and open urinal on the access road. *Picture credit* Sarbeswar Praharaj

is polluting the water in the kund and threatening the environment and health of the community at large. The residents also indicated that due to inadequate street lighting, they feel unsafe using the space after the evening, which was resulting in an increase of various anti-social activities in the area.

A more in-depth analysis of the heritage management challenges in the city reveals that these local issues are a product of inefficiency of the urban institutions and lack of integrated conservation plan at the city level. Varanasi Urban Development Authority, which prepares the Master plan for urban agglomeration area is also levelled with the responsibility of heritage management in the city. Thus, rather than establishing a heritage cell at the Municipal Corporation level and promoting local ownership and management of urban heritage assets, the matters related to conservation are rested with an authority that has expertise in regional growth management. Moreover, multiple urban institutions having their jurisdiction and ownership over heritage assets such as the Varanasi Municipal Corporation, Varanasi Development Authority, Indian National Trust for Art and Cultural Heritage (INTACH), etc. has formulated separate list of heritage structures, which were never converged into a single comprehensive list on which a dedicated plan could be framed. These constraints in urban policy and institutions have resulted in utter confusion regarding who is in charge of these unique heritage assets and therefore a little progress has been made on the much-needed renewal and conservation of the heritage structures and sites in this historic city.

6 Integrated Vision for the Renewal of Pushkar Kund

This study while searching for a more balanced relationship between man and nature goes beyond merely asking questions on how water systems and public spaces matter to society at present and addresses our moral obligation towards preserving the meanings and cultural values of historic heritage-scapes through a design development proposal for revitalisation of Pushkar kund and its associated public space. Heritage waterfronts are the lungs of cities through which people breathe, come together, interact and even purify themselves. This study conceptualized the renewal of Pushkar kund area in a way that can not only express religious sacredness but also act as an integral community asset and gateway. A comprehensive strategy has been laid out in Fig. 9 for waterfront development and embankment, along with water quality management at the first level. On the other hand, visions are laid forward to conserve heritage structures, promote cultural craft and increase the quality of societal space through provision of adequate site access, amenities and sanitation infrastructure.

As water is the key medium for activities in and around the kund any effort towards the revitalisation of this space should begin with scientific cleaning of the water with an aeration system for removal of hyacinth and improving water quality. A blend of humane and mechanical methods is proposed that can be undertaken to address the issue strategically. In order to improve the water quality after removal of hyacinth, mechanical techniques such as Artificial Floating Islands (AFI) should be adopted to treat the water and keep it clean. The AFI is artificial vegetation with aquatic plants that can be installed on the kund to absorb the pollution load and nutrients, which could substantially reduce the growth of hyacinth and result in cleaner water (Nakamura and Shimatani 1997). This technique has been already adopted in Kotitirth holy kund of Mahakaleshwar temple, Ujjain in the central part of India in Madhya Pradesh state where a 132 m^2 of an artificial floating platform has shown a positive impact on water quality in the 400 m² kund (Billore et al. 2008). It is also important to note here that before the execution of AFI technique, the existing



Fig. 9 Integrated proposal for conservation and renewal of Pushkar kund. Map and picture credit Sarbeswar Praharaj

open drainage and sewer line into the kund must be removed and technical dredging measures would also be required to increase the depth of the water pool. The key to success of these mechanical interventions and their long-term benefits to the society, however, will heavily rely on human interventions that could generate awareness and knowledge among local residents and engage community stakeholders in the process of management of these systems and the larger space itself.

According to Singh (2016), the restoration of degraded kunds in Varanasi should begin with the construction of retaining walls, edge formation and improvement that can accommodate religious and recreational activities. Presently lack of circulation and stairways in Pushkar kund has turned this historic site into a negative space that restricts gathering of the local community around this water pool. This proposal looks to reverse this scenario with introduction of solid embankments and concrete platforms all around the kund that could not only create a welcoming environment for the local community but also allow devotees to take kund parikrama (circumambulation of sacred places). To foster diverse community activities in this site and provide a safe transition from land to water, the formation of stairways into the kund is proposed. One of the best examples of step construction along a water pool is found in SanguThirtham Tank situated at Kancheepuram District in the southern Indian state of Tamil Nadu. The 1000 square yard water body is rejuvenated with wide stairways at all sides to provide much-needed space for devotees and the local community in the holy precinct (Amirthalingam 2016). A similar approach of stairways formation should be adopted with due consideration of local hydrological and geological features in Pushkar kund to restore its heritage glory and open up interactive public spaces for the neighbouring community. Two sub-levels of steps have been proposed (as shown in Fig. 9) for different types of activities and their inter-relation with water; they can also be separately used by people from different gender or age group. A dedicated zone is also proposed along the bank of the Kund to encourage rituals including holy dip, prayers and offerings to god. These daily rituals and religious activities shall help the people, especially the youth, in realizing the importance of the site and bring a sense of place attachment.

In established literature on urban design, the creation of lively and active edges is considered as an important condition for success and sustenance of historic public spaces (Madanipour 1999). This research acknowledges that programming of public space is an important component of physical design in the renewal of such historic sites, especially considering the spiritual association of the people of Varanasi with heritage monuments and their surroundings (Singh 2014). As discussed in Sect. 3 of this paper, the inner-city area of Varanasi is highly congested and there is an acute shortage of recreational spaces. Creation of designed and improved public sphere around Pushkar kund would certainly provide a replicable model in other such sites of the city that could largely tackle this issue of scarcity of public space. In view of this, eastern bank of the kund IS delineated as the core community interaction area and a proposal has been laid out to integrate this zone with the bank of River Asi which could create a continuous stretch of recreation and walking zone. This would increase the usability of the site and enhance the safety and health of the local community. Various recreation supporting utilities like benches, chairs, lawns

have been proposed in order to cater to all segments of the population. Once the entire circular embankment is developed and interlinked with the edge of River Asi, it can be used as a jogging circle and walking trail. Overall, a conscious effort has been made to re-imagine the ways spaces around the kund could be used with the introduction of design and landscape elements that can possibly stimulate social life and offer a setting for open celebration and ceremony.

Contemporary research on urban environments indicates that the mere existence of designed public spaces does not guarantee their use or produce social interaction automatically (Francis et al. 2012). Components of the physical environment that have been empirically linked with a positive influence on social interaction over public spaces include the presence of attractive focal points such as public art, food outlets, open lawns and seating, etc. (Semenza 2003). It has also been well documented in literature, that city regulations that control activities such as outdoor music, art and cultural events can be crucial in supporting life over public spaces (Southworth 2014). With an aim to transform Pushkar kund area into a vibrant interaction space, I have demarcated a specific area (as shown in Fig. 9) for positioning food stalls and installation of kiosks for showcasing cultural artefacts and craft products by local community and artists. A proposal for the development of a cultural and performance centre has also been outlined that can be located in the north-eastern edge of the site which acts as the main neighbourhood entry to the kund. Furthermore, a dedicated space has been identified in the intersection between the southern edge of the kund and River Asi for establishing an open workshop where exhibitions, live practice and craft training could be undertaken. While these developments could result in increased activity and interaction over the space, they can substantially exploit the revenue generation opportunities these tourist sites possess.

This research identifies a series of proposals for improving imageability of the site and upgrading the basic infrastructure in the surroundings to confront the existing environmental health and safety issues. For increased visibility of the kund, an entry gate is proposed at the entrance from Asi road which includes signage and a panel for showcasing historical information about the site. An idol of Lord Bramha is placed at the top of the main entry gate to communicate the religious significance of the place (Fig. 9). Two other neighbourhood entrances have also been proposed which would require removal of encroachments that must be undertaken with the due participatory process with the local residents. In order to improve the health and hygiene of the area, open household sewer lines that are directly flowing into the kund should be re-channelized and connected with an improved city sewer system. Installation of solid waste bins at strategic locations of the demarcated site is planned to address the issues regarding open dumping of solid waste into the kund or its edges. The proposal also incorporates the development of two community toilets to cater for the local and tourist population, which in turn would help to promote a clean image and healthy environment in this public space. Streetlights at ley locations are also provided for encouraging interaction and activities in the evening, which in turn will enhance safety perception among the residents and visitors.

In the end, it must be mentioned that the key to success in these urban regeneration projects lies with the local community, the level of awareness they possess about their

assets and their level of involvement and respect towards the management of their historic landscapes. Therefore local level and city-wide community engagement and awareness generation about these water bodies are of prime necessity. The outreach can be made through interaction and engagement among school children, local political class and women self-help groups, etc. Issues such as water quality management, solid waste and other infrastructure management could be sorted out to a large extent through community mobilization. Incorporation of local low-income households into livelihood generation strategies could lead to better outcomes from such development ventures. In fact, improving public spaces in form of these historic waterfronts could lead to open dialogue and debate which could lead to community mobilization and overall development of the city at large. I firmly advocate that the responsibility for coordinating these awareness and community engagement initiatives as well physical development of the site should be entrusted with a dedicated urban heritage cell within the Varanasi Municipal Corporation which has legal authority and ownership over these heritage assets. In general, for tackling the heritage management issues at the city level, all the functions pertaining to policy planning, conservation and management of cultural heritage should be rested with this heritage cell that can foster informed citizen participation, engagement of technical experts and local stakeholders.

7 Conclusion

Cities are made of people and places. Public space represents the culture and diversity of a city and its communities. It is, therefore, imperative that public spaces are protected so that local culture can blossom to its full glory and live through ages. Considering the reciprocal relationship between religious shrines, holy water bodies and public spaces in Indian cities, heritage conservation and management have emerged as a necessity if our cities are to deliver high-quality public spaces. India's dearest scholar and an erudite authority on Varanasi Prof. Rana P. B. Singh (2016) thus said:

Heritage is the mirror of our mankind's growth, progress and prospects; it is very important that it should be preserved. One has to remember that the modern way of life and science and that of ancient wisdom and its messages, can work together to help in searching for a harmonious and peaceful path for mankind's integration with nature and places. (p. 443)

This research, while exploring opportunities for harmonious co-existence of man, nature and culture, analysed the heritage resources and public space system in the city of Varanasi- popularly known as the cultural capital of India. Outcomes from an intense local survey carried out in Pushkar kund area in the southern part of the city presented in this paper highlight the issues of degradation of the natural and manmade heritage site and breakdown of social interaction over those spiritual spaces. Rapid unplanned urban growth, lack of public awareness about heritage and cultural values, poor sanitary conditions and complex institutional and management framework for the maintenance of heritage sites have emerged as key challenges that are constantly influencing the deterioration of urban heritage and their associated neighbourhoods in Varanasi. This is not merely a concern for culture-loving intellectuals in Varanasi and India; even the local communities may regret the loss of a sense of place, which makes them feel part of their society.

A comprehensive vision is presented in this paper for the conservation of Pushkar kund and infrastructure renewal in its associated public place to transform this area into a vibrant cultural precinct. As part of the renewal plan, specific components such as craft centres, food kiosks have been introduced to support community activities and interactions. A blend between new developments, regulations and incentives offered to help to realize the public and private values of sub-city-level public spaces in Varanasi that can eventually enhance and leverage the growth of livable neighbourhoods and vibrant cultures. Apart from greater interaction among local communities and improved quality of neighbourhoods, investment in the renewal of these inland heritage waterfront public spaces in Varanasi possesses the potential to boost tourism that can provide more income opportunities for local craftsmen and low-income communities. Further to this research, investigations could be carried out not only for upgrading the existing condition of each kund and their surroundings, but interlink them (considering their close proximity from each other in the inner-city area) and develop concatenated public spaces which can considerably enhance the quality of environment and interactivity in the city at large.

Increasing densification and a steady decrease in public space pose a significant challenge for urban planners, designers and concerned professionals to keep up with the demand for 'positive urban space' in contemporary cities. At the same time, the sense of local community attachment to existing places has shown a diminishing trend, especially around historic urban quarters. Through this research, I have made an attempt to reverse these trends by a series of interventions that aim to create a system of recharging of human soul in the old-style public spaces, shape an environment that has societal consciousness and a sense of belonging to a place that continually helps to maintain the 'spirit of place'.

Acknowledgements The author acknowledges the contribution by the undergraduate and postgraduate students of the Department of Urban Planning, Lovely professional University for assisting me in the field surveys and data collection in the year 2014. The author also extends sincere thanks to the people of Pushkar *kund* area where the primary survey was carried out with local community support. Finally, gratitude to the great philosopher and spiritual guide Prof. Rana P. B. Singh who has supported this study defying all the odds, shown the researchers bits and corners of the historic Varanasi city and encouraged them to walk that extra mile.

References

Amirthalingam M (2016) Thirukazhukundram: an ecological heritage site of Tamilnadu. Retrieved from heritageonline.in: http://www.heritageonline.in/thirukazhukundram-an-ecolog ical-heritage-site-of-tamilnadu-2/

Banerjee T (2001) The future of public space. APA J 67(1):9-24

- Billore S, Prashant E, Sharma J K (2008) Restoration and conservation of stagnant water bodies by gravel-bed treatment wetlands and artificial floating reed beds in tropical India. In: The 12th World Lake conference, pp 981–987
- Carr S, Francis M, Rivlin LG, Stone AM (1992) Public space. Cambridge University Press, Cambridge
- Coomaraswamy A (1993) Yak\$as: essays in water cosmology. Oxford University Press, IGNCA, New Delhi
- Cunningham A, Sastri S (2002) Ancient geography of India. Munshiram Manoharlal, New Delhi

Eck DL (1982) Banaras: city of light. Columbia University Press, New York

- Francis J, Giles-Corti B, Wood L, Knuiman M (2012) Creating sense of community: the role of public space. J Environ Psychol 32:401–409
- Jorgensen BS, Stedman RC (2001) Sense of place as an attitude: lakeshore owners attitudes toward their properties. J Environ Psychol 21(3):233–248
- Kurniawati W (2012) Public space for marginal people. Proc Soc Behav Sci 36:476-484
- Licciardi G, Amritahmasebi R (2012) The economic of uniqueness. The World Bank, Washington DC
- Madanipour A (1999) Why are the design and development of public spaces significant for cities? Environ Plann B Plann Des 26(6):879–891
- Nakamura K, Shimatani Y (1997) Water purification and environmental enhancement by the floating wetland. In: Wetland Proceedings of Asia, WATERQUAL' 97 Korea: IAWQ, pp 888–895
- Oldenburg R (1989) The great good place: cafes, coffee shops, community centers, beauty parlors, general stores, bars, hangouts and how they get you through the day. Paragon House, New York
- Praharaj S (2014a) Conservation and urban renewal as a base for sustainable development in historic cities: a case of Varanasi. Sustainable constructivism: traditional vis-à-vis modern architecture. Excellent Publishing House, New Delhi, pp 167–174
- Praharaj S (2014b) Rejuvenation of water bodies (Kunds) and restoring active community spaces in the cultural capital of India: Varanasi. In: Proceedings of the neo-international conference on habitable environments. Indian Institute of Architects, Chandigarh, pp 459–470. https://doi.org/ 10.13140/RG.2.1.4705.0326
- Praharaj S, Singh S (2014) Philosophies of historic spaces, its traits, congestion and contestation:
 a case of world heritage sites in Kathmandu. In: Conference proceedings: planning Africa 2014
 making great places. South African Planning Institute, Durban, pp 545–557
- Praharaj S, Bandyopadhyay S, Shah J, Ghosh D, Ray S, Singh, P, Godha K (2013) Knowledge needs assessment study: synthesis report. National Institute of Urban Affairs (NIUA), New Delhi. https:// doi.org/10.13140/RG.2.1.4379.7205
- Praharaj S, Han J, Hawken S (2018a) Evolving a locally appropriate indicator system for benchmarking sustainable smart cities in India. In: Leal Filho W, Rogers J, Iyer-Raniga U (eds) Sustainable development research in the Asia-Pacific Region. World Sustainability Series. Springer, Cham, pp 253–274. https://doi.org/10.1007/978-3-319-73293-0_15
- Praharaj S, Han J, Hawken S (2018b) Towards the right model of smart city governance in India. Int J Sus Dev Plann 13(2):171–186. https://doi.org/10.2495/SDP-V13-N2-171-186
- Semenza J (2003) The intersection of urban planning, art, and public health: the Sunnyside Piazza. Am J Public Health 93(9):1439–1441
- Singh RPB (1994) Water symbolism and sacred landscape in Hinduism: a study of Benares (Vārāņasī). Erdkunde 48(3):210–227
- Singh RPB (2007) Varanasi (India): perspectives and visions of strategic urban development of a heritage city. In: Antwerp: ISOCARP, pp 1–15

- Singh RPB (2009) Banaras: making of India's heritage city. Cambridge Scholars Publishing, Newcastle
- Singh RPB (2014) Banāras: encountering the experiences and expositions of the spirit of place. In: Keul I (ed) Banā⁻ ras revisited: scholarly pilgrimages to the city of light. Harrassowitz Verlag, Wiesbaden, pp 77–94
- Singh RPB (2016) Urban heritage and planning in India: a study of Banaras. In: Dutt AK, Boble AG, Costa FJ, Thakur RR, Thakur SK (eds) Spatial diversity and dynamics in resources and urban development. Springer, New York, pp 423–449

Sivananda S (1944) Lives of saints. A Divine Life Society Publication, Rishikesh

- Southworth M (2014) Public life, public space, and the changing art of city design. J Urban Des 19(1):37-40
- The World Bank & Cities Alliance (2014) Inclusive heritage-based city development program in India. World Bank, Washington, DC. License: CC BY 3.0 IGO
- Tonnelat S (2010) The sociology of urban public spaces. In: Hongyang W, Zhai Guofang S (eds) Territorial evolution and planning solution: experiences from China and France. Atlantis Press, Paris, pp 1–10
- Tuan YF (1977) Space and place: the perspective of experience. University of Minnesota Press, Minneapolis, MN



Sarbeswar Praharaj, Ph.D., is the Associate Director and Assistant Research Professor at the Knowledge Exchange for Resilience, School of Geographical Sciences and Urban Planning at Arizona State University (ASU). He is a Senior Global Futures Scientist at the Julie Ann Wrigley Global Futures Laboratory. Before joining ASU, he was a postdoctoral researcher and manager of the City Analytics Lab at the City Futures Research Center, UNSW Sydney. Dr. Praharaj leads research on urban and cultural geography, smart cities, and resilience. He engages in research-led interactive teaching and learning pedagogies in urban planning and geographical science.

Sarbeswar received his Ph.D. from UNSW Sydney and holds two Master Degrees in Urban Planning and Geography.

Religion



Sri Ardhanarishvara (Sanskrit: श्री अर्धनारीश्वर, Sri Ardhanārīśwara) Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

The Priesthood of the Temple of Vithobā in Pandharpur, Maharashtra



Erik Reenberg Sand

Abstract After outlining some general features of Hindu sacred places and their priesthoods, the present paper focus on the regional town of Pandharpur in Maharashtra, its Vithobā temple and priesthood. After a brief historical introduction to the town and its deity, and its special relation with the bhakti Vārakārī Sampradāya, a description of the scheme of daily temple rituals and darśana is given, followed by presentations of the two priesthoods of the Vithobā temple, the Badavas and Sevādhārīs, their organisation and income which seems to have been increasingly limited to the performance of the temple rituals. This leads naturally to the final chapter which gives an overview of the many conflicts and litigations around the management of the temple which have resulted in a long list of litigations in court both among the different priesthoods and among the priesthood and the government. After independence and the introduction of the modern state, the position of the local priesthood has been increasingly undermined by modern legislation which have, finally, led to the priesthood losing their inherited rights and privileges, as well as the management of the temple.

Keywords Pandharpur · Vithoba · Hindu temples · Hindu sacred places · Priesthood · Hinduism

1 Introduction

Most Hindu temples and sacred places are served by a priest $(puj\bar{a}r\bar{r})$ or a group of priests. They have either inherited the privilege of doing service to the deity or are straightaway considered the owners of the temple and the deity in question. In the case of popular temples, the priests are mostly non-Brahmins. Brahmins are usually connected with temples and sacred places associated with high Hindu deities. In most of the larger sacred places (*ksetras*), one normally finds one or more groups of priests who are responsible for the service of the central deity (*ksetrapati*) and several of

E. R. Sand (🖂)

Department of Cross-Cultural and Regional Studies, University of Copenhagen, Copenhagen, Denmark

e-mail: ersand@hum.ku.dk

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_8

the surrounding deities (*parivara devatās*). In Northern India, these priests are often called by the generic term *paṇḍās* (derived from Sanskrit *paṇḍita*, 'learned').¹ In South India, the priests may be called *dīkṣitas*, as is found at Cidāmbaram (Smith 1996: 57–66).

The power and status of these priests are primarily based on their inherited ritual privileges which are legitimated by their purity and superior status in the caste hierarchy. Since these priests are normally the only ones who may approach the deity and perform the rituals, their role becomes essential to the ordinary devotees, pilgrims or visitors, who must perform their ritual duties only with the help of a priest. In other words, the priests are intermediaries between the devotees and the deity they worship. In this, one may see a continuation of the old Vedic tradition, in which the Brahmins monopolised the Vedic sacrifice ($yaj\tilde{n}a$). Thus, the old yajña to the Vedic gods was replaced later by the $p\bar{u}j\bar{a}$ to the Hindu gods, whereas the position of the Brahmin priest remained unchanged: In the old days, he was mediating between the gods and the sacrificer (yajamana), and today, he mediates between the gods and the terminology of temple pūjā.

Many of these priesthoods seem to have been extremely wealthy in the past. This, of course, has to do with the fact that they normally took their share of the offerings and gifts donated by the devotees when visiting or performing pilgrimage to the sacred place or temple. But to this must be added the often large donations in the form of money and land which the large temples often received from devotees and which often made the priests administering the temples *de facto* landowners. These donations, which in Sanskrit are termed $d\bar{a}na$, were often earmarked to pay for the performance of specific rituals belonging to the worship of the temple's deities. Naturally, the greatest donors were often kings and other members of the nobility who, apart from a heavenly existence in the hereafter (*svarga*) or maybe even release from existence (*moksa* or *mukti*), would also receive status and ritual privileges.

It goes without saying that the priests and the common devotees often found themselves in a state of conflict. This occurred often with outcastes and untouchables who found themselves at the other end of the caste hierarchy, and because of their ritual impurity, most often were denied admission to the large Hindu temples. But surely it was also the case with other groups of Hindu society who felt that the Brahmin priests monopolised their deities with the result that the only possibility of getting admission to the gods was by paying off their Brahmin assistants.

During British colonial rule and after independence, a third player joined the game played around the great temples and their administration. This additional element was the political system in the form of modern central and local governments. One of the areas where the state most resolutely entered was in the question of the admission of the untouchables to the Hindu temples. Following article 17 of the Constitution of India adopted in 1950, which expressly forbade every kind of discrimination on the

¹ This is, e.g., the case with Vārāṇasī (Parry 1994: 97–109 and Saraswati 1975: 24ff.), Puri (Patnaik 1977: 43ff.), Ayodhyā (van der Veer 1997: 183–267), and Braj (Entwistle 1987: 4–8), while in Gayā, the local priests are known by the name *gayāwals* (Vidyarthi 1978: 50ff.).

basis of untouchability,² most states have passed local laws or Temple Entry Acts which made it illegal to deny 'untouchables' admission to public temples. This led to a series of lawsuits against various local governments on the part of temple priests, who were of the opinion that the new laws represented a strong break with the practice of centuries. To them, the result of these laws was disastrous: the deity of the temple became polluted due to the presence of ritually impure untouchables resulting in the need to perform expensive purification rituals. The main legal argument against these laws was almost always that the temples in question were not public, but private. Therefore, based on article 26b of the Indian Constitution, which aimed at the protection of minorities, the plaintiffs secured rights to take care of their own religious affairs. The representatives of these temples who filed suits on this basis, however, routinely lost their cases (Derrett 1968: 468ff.).

In this article, I shall focus on how, and to which extent, these general features are played out in a lesser, regional sacred town and its main temple, namely Pandharpur a small town of about 100,000 inhabitants,³ situated about 200 km southeast of Puṇe in Sholapur District of the southeastern part of Maharashtra, and the temple of Viṭhobā and its priesthood.⁴ After a survey of the history of Pandharpur (Sect. 2) and the cult in the Viṭhobā temple (Sect. 3), the local priesthood, its organisation and resources will be dealt with (Sect. 4) in order to, finally, focus on the conflicts and litigations which has played out around the temple (Sect. 5).

2 Pandharpur and the Vārakarī Sampradāya

Pandharpur, which is one of the most important sacred sites of Maharashtra, is situated on the right bank of the river Bhīmā in an area containing archaeological findings going back to the Neolithic age. Presumably, it has from early times been a place of crossing for nomadic shepherds on their migrations to and from the highland near the Western Ghats (Kosambi 1962: 130ff.).

The main attraction of the town is the deity Vithobā who is considered a local manifestation of Viṣṇu in his Kṛṣṇa *avatāra*. It is not known how old the cult of Viṭhobā is in Pandharpur. However, it probably dates from 1189 A.D., at which time a Marathi inscription reports that the temple was founded (Tulpule 1963: 85–92). As far as one can judge, the inscription as well as the establishment of the temple was intimately connected with the political situation of the area which, having been subject to the Kannada speaking Chalukyas and Hoysalas, had just come under the influence of the Marathi-speaking Yadavas of Deogiri to the north. As their name

 $^{^2}$ "[Article] <u>17</u> Abolition of Untouchability "Untouchability" is abolished and its practice in any form is forbidden. The enforcement of any disability arising out of "Untouchability" shall be an offence punishable in accordance with law". Cp. Derrett 1968: 468ff.

³ According to the 2011 Census, the urban population of Pandharpur consisted of 98,923 persons (Census of India 2015).

⁴ Apart from my own fieldwork in 1982 and later, my main sources are Dingre (1968 and 1976), and Nadkarni (1970).

suggests, these Yadavas considered themselves as belonging to the same tribe as Lord Kṛṣṇa; and this was probably an important reason for them to support the cult of Viṭhobā. Another factor may very well have been to strengthen the Marathi influence in this northern Kannada area by turning Pandharpur into a place of pilgrimage for Marathi speaking Vaiṣṇavas from the north. There is no doubt that the introduction or strengthening of the cult of Viṭhobā did represent a Vaiṣṇavization of the local cult, which earlier was of Śaiva observance.⁵

Out of the pilgrims who flocked to Pandharpur, there developed, at the end of the thirteenth century, a religious movement that ever since has been a great religious force in the Marathi-speaking area, and which likewise has influenced the North Indian *sant*-movement (see, e.g. Gold 1987), the Vārakarī Sampradāya. The members of this movement consider themselves to belong to the Bhāgavatas among the Vaiṣṇavas, and thus worship Viṣṇu in the form of Kṛṣṇa. At the same time, it is most intimately related to the manifestation of Kṛṣṇa in Pandharpur as Vițhobā, Vițihala or Pāṇḍuranga. The movement's name, Vārakarī Sampradāya, derives from the fact that one of the only rituals of this movement is the pilgrimage that its members must undertake at least once a year on the eleventh of the bright lunar fortnight of \overline{A} ṣāḍha (June–July) in order to catch a glimpse of their beloved Vițhobā.

With time, this movement fostered a series of mystics and religious poets whose religious hymns, the *abhangas*, are their favourite literary treasures that were transmitted orally, and are sung during the pilgrimage to Pandharpur. The most famous poets are Jñānadeva (ca. 1271 or 1275 to 1296), Nāmadeva (ca. 1270 to 1350), Ekanātha (ca. 1533 to 1599) and Tukārāma (ca. 1598 to 1649).

Vārakarī Sampradāva is a form of *bhakti* worship, which means that devotion to God is its principal means of salvation. In accordance with the theme of bhakti, many of their religious hymns deal with the relations between man and God, and often use various forms of human love to express the relationships. Thus, in this poetry, Vithobā is described both as a father, a mother and a friend, but, contrary to the North Indian sant-tradition, only rarely as a lover (Vaudeville 1987: 224). The use of *bhakti* as a means of salvation also means that this movement is generally opposed to religious rituals; although, it is not as radical in this aspect as many North Indian *sant*-traditions which completely denounce all sorts of image-worship. Thus, for the Vārakarīs, the cult of the image of Vithobā in Pandharpur is indispensable for their self-understanding. Apart from rituals, the Vārakarīs are also critical of the caste system which, although they do not fight it politically, they generally do not practice amongst themselves. It is customary that almost all castes of Maharashtra take part in the various processions which, during the lunar month of Asadha, go to Pandharpur. The Vārakarī Sampradāya, because of its opposition to rituals and to the caste system, necessarily stands in a somewhat tense relation to traditional Brahmin culture, and not the least to the Brahmins who administer the temple of their favourite deity Vithobā in Pandharpur.

⁵ This is documented by the fact that some of the oldest temples in the town are temples of Siva. They are owned by the comparatively low standing $kol\bar{i}$ caste, which presumably has dominated Pandharpur from before the Brahmin influence began.

3 The Cult in the Vithobā-Temple

Before we proceed to look at the people who manage the cult of Vithobā, the local Brahmins, it will be useful to examine the temple in Pandharpur and the rituals that take place there. As mentioned earlier, the Great Temple in Pandharpur goes back to the year 1189 when, according to a Marathi inscription, its foundation stone was laid. Apart from a series of minor deities, the temple complex today houses two main images: Vithobā himself and his wife Rukmiņī, which is found in a separate temple to the north of the main temple. Of these two deities, only Vithobā can be traced back to the year 1189. Rukmiņī seems to be a later addition. It has existed, however, since 1519, in which year she and her priesthood are mentioned in a legal document written under the auspices of the kings of Bijāpūr, to whom Pandharpur belonged at that time (Dingre 1968: 62–70).

The worship of Vithobā is not essentially different from the worship in other major Hindu temples. It consists of three types of rituals: first, the regular daily rituals (*nityapūjā*), and, secondly, the various special rituals which are performed on special festival days. Both these types of rituals are performed on the behalf of the board of the temple, the Devasthān Committee. The third and last type, the occasional rituals, are performed by the local priests, on behalf of individual visitors or pilgrims who, in analogy with the Vedic sacrifice, are called *yajamānas*, i.e., 'sacrificers'.⁶ On the whole, there is a good deal of similarity between the three types of rituals. The difference mainly consists in elaboration, length of time and decorum. In order to give an impression of these temple rituals it should, therefore, be sufficient to give a short description of the first type or daily rituals.

The purpose of the daily rituals is to provide the daily physical and aesthetic needs of Viṭhobā. In this way, there are many similarities between these rituals and the daily routine of kings in Classical India with regard to bath, toilet, meals and entertainment (cp. Kane 1974: 36f.). The rituals, the main elements of which are pūjā, worship and $\bar{a}rat\bar{a}$, 'waving of a lamp', take place from about 4.30 A.M., when Viṭhobā is awakened from his sleep, until about 11.30 P.M., when he is again put to sleep in his bedchamber (*śejaghara*). In all, the daily rituals consist of six successive parts.⁷

(1) The first ritual, Kākadāratī, is a morning wake-up rite named after the rough wick $(k\bar{a}kad\bar{a})$ used for the āratī lamp. In this ritual the two innermost rooms of the temple are opened, and the deity is asked to wake up. After the feet of the image has been washed with milk and water, and the leftovers of the previous night's pūjā, which included flower garlands, sandalwood paste, and oblations,

⁶ On the whole, there are many similarities between these temple rituals and the Vedic ritual. Besides the *yajamāna* terminology, we also find here the deployment of several types of priests, each with their own individual functions and situation in the temple. We also find the use of Vedic *mantras*, which are recited by a special priest, the Benari, as well as the use of the concept of sacrificial fee, dak sin a, which likewise originates in the Vedic ritual.

⁷ The descriptions below are based on personal observations as well as Deleury (1960: 65–71) and Dingre (1968: 126–138).

have been removed, Vithobā is again adorned. The Kākadāratī is performed to the accompaniment of established hymns in Marathi.

- (2) Immediately after this ritual follows the pūjā which is called Pāñcāmrtapūjā, because the image of Vithobā is bathed with the five ingredients: Milk, curds, clarified butter (*ghee*), honey, and sugar, accompanied by hymns from the Rigveda. After a final ablution (*abhiseka*) with water, the image is clothed in a new dress and a turban, and its face is plastered with sandalwood paste. After this, the temple is open to the devotees for *darśana* between about 7.00 and 11.00 A.M.
- (3) At 11.00 A.M., begins the Mādhyānhapūjā or Midday-service which mainly consists in offering Vithobā a meal (*mahānaivedya*). After that, about 3 P.M., the temple is reopened to the devotees for *darśana*.
- (4) At about sundown, the Aparāhnapūjā is performed, which begins with the washing of the feet of the image. After that, the sandalwood paste, clothes, and flower garlands are renewed, and the face is washed. Finally, the deity is served a snack in the form of a sphere-shaped sweet (*laddu*).
- (5) Between 6.00 and 6.30 in the evening, an $\bar{a}rat\bar{i}$ -ritual is performed, which is called Dhūpāratī, because it includes incense ($dh\bar{u}pa$), which is afterwards distributed to the locals of the town.
- (6) The last ritual of the day is called Śejāratī, 'bed-āratī', and is performed at about 11.30 at night. This ritual primarily consists in Viţhobā being bathed and dressed for the night, after which he is put to bed (*śeja*). This is symbolically expressed by a long piece of cloth or carpet on which his footprints (*pāulghadī*) are printed, and which is rolled out from the *sanctum sanctorum* (or *garbhagṛha*) to a special bedchamber (*śejaghara*) found in the antechamber. After this an āratī is performed. Finally, the two innermost rooms of the temple are locked in the night and the officiating priests leave for home.

3.1 Darśana

Seen from the point of view of the devotees, however, these rituals do not have any personal importance because they do not directly partake of the fruits of the rites. Only through those rituals, which one pays for oneself as *yajamāna*, does one have the possibility of influencing one's own destiny. The most important act for the devotees visiting the temple is the *darśana*, which really means 'sight' and denotes the act of visiting and 'seeing' a deity in connection with a visit or a pilgrimage to a temple (Eck 1996). Since this act follows a comparatively fixed pattern, one may call it a ritual. For the people visiting Pandharpur, whether Vārakarīs or not, darśana is the central element and forms the theme of a series of very popular hymns (*abhangas*) by the various Marathi 'poet-saints'. As an example, one may quote an *abhanga* by Jñānadeva:

When the eyes rest upon your image $(r\bar{u}pa)$, I am overcome with happiness.

This is the fine Vitthala.⁸ This is the fine Mādhava.⁹ Because of a stock of many good deeds, I have qualified for the love of Vitthala, The abode of all happiness, Father, the bridegroom of Rakhumādevī.¹⁰

In this hymn, we see darsana is a clear expression of the love of God for man, a happiness that he has qualified for through his earlier lives.

In the daily ritual cycle in the temple of Pandharpur, the admission for darśana is placed between the earlier mentioned rituals from about 6.00 in the morning till about 11.00 in the night, in such a way that it has to give way to possible yajamāna-pūjās and other privately arranged rituals.

4 The Priesthood of Pandharpur

The responsibility for the cult of Vithobā in the Pandharpur temple is placed in the hands of two groups of Brahmins, Badava and Sevādhārī, while the cult in the Rukminī temple is looked after by the *Utpats*. All three groups of priests belong to the sub-caste of Brahmins called *deśastha*, which is found mainly in the Deccan in Maharashtra and Northern Karnataka. They are all mentioned first in the earlier mentioned Bijāpūr document from 1519, but they most probably go back to at least some time during the fifteenth century. Since my main focus is on the Vithobā temple, I shall leave out the Utpats.

4.1 Badava

At least since the end of the fifteenth century, the Badava Brahmins have occupied the position as the more important of the two groups of priests involved in the cult of Vithobā since they have functioned as managers and protectors of the temple and as leaders of the cult. Interestingly, their name seems to derive from the Marathi verb *badavine*, which means 'to bruise' or 'to beat', probably because they used to beat people seeking darsana in order to make it run faster (Molesworth 1857: s.v.).

According to their own tradition, their present association with the Vithobā temple goes back to the second half of the fifteenth century, when four brothers, Tanaba,

⁸ Another name for Vithobā.

⁹ Another name for Kṛṣṇa, of whom Vithobā is taken to be a manifestation.

¹⁰ rūpa pāhatām locanīm | sukha jhālem vo sājaņī || 1|| to hā viţhţhala baravā | to hā mādhava baravā || 2 || bahutā sukṛtācī jodī | mhaņuni viţhţhalīm āvadī || 3 || sarva sukhācem āgara | bāparakhumādevivara || 4 ||| (Abhanga No. 1 in Dhere (1983: 59)). Rakhumādevī is Marathi for Rukmiņī, the wife of Kṛṣṇa.

Timman, Shamraj and Malhar, who originally belonged to the Sevādhārī group, were supposed to have taken over the responsibility for the management of the temple from a certain Babaji Kunt, who had no children and wanted to go on a pilgrimage to Vārāṇasī (Dingre 1968: 163f. and 215). It is difficult to say how far this is history or a myth aiming to explain the system by which the distribution of income from the temple is made. Maybe both aspects play a part. Nevertheless, the Badava Brahmins remain today divided into four separate groups (Marathi *taksīm*, Urdu/Hindi *taqsīm*), each of which is said to descend from one of the four original brothers; and the income from the temple is still first divided in four equal lots and given to the individual Badava-families according to their shares. In 1966, there were in all 82 Badava-families, out of which 24 are said to descend from Tanaba, 28 from Timman, 15 from Shamraj and 15 from Malhar (ibid.:215; Dingre 1976: 428–429).

4.2 Sevādhārī

In contrast to the Badava Brahmins, who primarily play a supervising role in the temple, it is the Sevādhārīs who in practice carry out the worship. This is also reflected in their name, which means 'a person who does service (for a deity)'. In 1966, there were in all 127 Sevādhārī-families divided in seven separate sub-classes, each with their own name and ritual functions (Dingre 1968: 219ff.; Dingre 1976: 429–30): The first sub-class consists of eight Pujārī-families. Their duty is to perform the rituals connected with the image of Vithobā, e.g. bathing, dressing and decorating the image as well as performing the *āratī*, and they are normally stationed just to the right of the image; the second sub-class consists of 22 Benari-families, whose job it is to recite mantras and Vedic hymns; the third sub-class consists of the 24 Paricharak-families, who bring the water for bathing the image and hand the Pujārī the āratī-lamp; the fourth of the 22 Dingre-families, whose job it is to hand the deity his mirror, clean the floor and unroll the carpet with Vithobā's footprints, when he is 'being put to bed'; the fifth sub-class consists of the 48 families of Haridāsas, who sing the Marathi hymns for the deity; the sixth sub-class is of one Dange-family, whose duty it is to carry the sceptre of Vithobā; and, finally, the seventh sub-class consists of the two Divate-families, who hold the torch of Vithobā.

4.3 The Organisation of the Priests and the Temple

Following a decision by the Bombay High Court in 1896, the three priesthoods, Badava, Sevādhārī and Utpat, have been organised in three separate associations, each with its own elected committee. The Badavas are organised in the Badava Committee, the Sevādhārīs in Samasta Sevādhārī Committee, which has subdivisions for each of the seven sub-classes, and the Utpats in the Utpat Committee (ibid.: 213.).¹¹ The principal purpose of these associations is to take care of the economic interests of the three priesthoods, i.e. to administer and distribute the income which falls to each group in common (for this, see below). In addition to this, the three committees have the responsibility to assure that their members fulfil their obligations regarding the cult of Viţhobā and Rukmiņī.

Apart from these four associations, another institution that is connected with the temple is the Devasthān Committee. This committee was instituted in 1854 by the Bombay Government to supervise the functioning of the temple and manage the various donations, which in the course of time have been given to the temple for religious and charity purposes (Dingre 1968: 165). This was a measure which the government took regarding all larger, public temples, and its primary aim was to secure public insight in the administration of the temples and thereby reduce the power and influence of the local priesthoods.

4.4 The Sources of Income of the Various Classes of Priests

Basically, the various groups of priests mentioned above are involved in the cult of Vithobā and Rukmiņī because it gives them their livelihood. This is confirmed by Dingre, who himself belongs to the Sevādhārīs, and adduces that they all have other family-deities (*kuladaivatās*) than Vithobā and that some of them not even are Vaiṣṇavas in the strictest sense (ibid.: 206.).

Traditionally, the priests of Pandharpur, as in all other major sacred centres, have three types of income which are all derived from the devotees' devotion for God, their desire for a heavenly life in the hereafter (*svarga*) or for final release (*mokṣa*) from the cycle of existence. The first source of income is donations (*dāna*) from pious individuals, who have willed a piece of land or an amount of money to the temple or to a family of priests with reference to the cult of Vithobā or some other deity. The second is the public and private rituals for Vithobā and Rukmiņī taking place in the temple as earlier described. The third is the income which the priests get by acting as *kṣetropadhyāyas* or *tīrthapurohitas*, i.e. by accommodating pilgrims and assisting them in their various ritual requirements.

Of these three types of income, the donations, which earlier seem to have been quite considerable, in modern times, i.e. during the twentieth century, have been rapidly decreasing (ibid.: 229.). The same is the case with income for accommodating pilgrims. This has also dwindled as the various *gurus*, especially from the Vārakarī Sampradāya, have bought or built *āśramas* and *maths* in Pandharpur, where their disciples and followers live while they are visiting the town. Combined with the

¹¹ According to Nadkarni (1970: 29 and 47), there has since 1937 existed yet another organisation for the Badavas, the Samasta Badve Mandal, which seems to be purely an interest organisation, and not, like the Badava Committee, based on a legal decision, but in fact probably somehow competes with it.

increase in the number of priestly families, this means, first, that the pressure for survival has been placed increasingly on the temple cult proper, and secondly, that more and more families have had to invest in land and take on other professions than the traditional priesthood.

In case of the income from the temple cult proper, the Badavas are no doubt the wealthiest among the two priesthoods officiating in the Vithobā temple. Thus, it is their inherited privilege to appropriate everything which, in connection with the daily, public rituals and the daily darśana, is being offered at the feet of Vithobā, with the deduction of an amount for the expenses required for the pūjā (i.e. the *upacāras*) and the running of the temple. Exempt from this general rule are, however, gifts of money exceeding 500 rupees, gold ornaments exceeding the value of 100 rupees and silver ornaments exceeding 50 rupees. Such gifts must, according to a High Court decision of 1892, be handed over to the Devasthān Committee, which, however, happens very rarely. Thus, according to Dingre (1968: 194) no gifts valued at more than 500 rupees were reported during the whole period from 1896 to 1944–45.

In contrast to the Badavas, the Sevādhārīs generally have no fixed claim to any income in connection with their service at the rituals for Vithobā. However, in the course of time, it has become the practice for the devotees to give an extra amount to the Pujārī after they have placed a gift at the feet of Vithobā. This income the Pujārī, however, keeps to himself and does not share with the other Sevādhārīs. They are, therefore, obliged to ask the devotees for an amount as sacrificial fee (*daksiņā*) after the rituals and outside the *sanctum sanctorum* (or *garbhagṛha*).

What has just been stated with regard to the income of the two groups of priests' concerns, however, only what one may speak of as the individual income to the priests, i.e. income based on their service in the temple. In addition, all families also have a share in the collective income from the temple rituals. The reason for this is that it is a common right and privilege of all families to take part in the worship. Since, however, with time, it is impossible for all families to take part in the rituals at the same time, a system of rotation or auction has been introduced. The rotation system is found among the Pujārīs, where the eight existing families take part in turn according to their order of succession to the original Pujārī. The same principle is found among the Divaṭas, where the two families officiate in turn, and with regard to the Dange-priest, there is, of course, no problem, since there is only one family.

Among the four remaining groups of Sevādhārīs and among the eighty-two Badava families the principle of auction is being practised. According to this, representatives of all the families interested in taking part in the worship meet the day before to offer a bid for the next day's services which are sold to the family making the highest bid. The price hereafter falls to the treasury of the association in question which once a year is distributed to the various families according to their share. In case of the Badava Committee, though, it occurs after deduction of the expenses for the rituals.

Historically, it seems that the rotation system is most probably older than the auction system. This may be deduced from the fact that the rotation system has been partly preserved by the Badavas, in the sense that the income from the auctions is distributed to the four original family groups (taksim) on shift. It is therefore a

qualified assumption that the auction principle has probably been introduced, when the number of families in the individual groups had become unmanageable.

5 Conflicts and Litigations in Connection with the Operation of the Temple

A very complex economic system has gradually grown around the service performed for Vițhobā and Rukmiņī in the Great Temple of Pandharpur. On the face of it, this system is legitimated both by priests and pious devotees by being explained in terms of an equal exchange between the visiting devotees and the various priests of the temple, in which spiritual or religious goods are exchanged for more material ones. To many visitors and outsiders, it may, however, equally well be understood as an economic system favouring the priests, and primarily devised to extract money and other valuables from visitors and pilgrims and to distribute these to the increasing number of Brahmin families who are dependent on it. Seen from this perspective, it is hardly wrong to compare the temple and the cult of Vițhobā with a modern business concern selling various services. Like these, the production of spiritual or religious goods is very cheap in raw materials but expensive in manpower.

Compared with a modern business, the Pandharpur temple business, however, suffers from several important weaknesses. Most important is, perhaps, that it lacks a definitive authority structure. Thus, although the Badava Brahmins have gained a prescriptive right to being kinds of managers of the temple, they do not own it and have no real authority over the people who perform the rituals, the Sevādhārīs, because their respective casts are determined by hereditary rights and privileges. To this must be added that for the last almost 150 years, there has existed an independent superior body, the Devasthān Committee, whose purpose is to ensure that the temple is functioning for the benefit of the public and that a part of the income received by the way of gifts were spent on maintaining the temple. But, as history shows, this body neither was able nor had the necessary powers to get their way.

If we add to this the increased number of families which are dependent upon the income of the temple, it is not surprising that the history of the temple through the last almost 500 years has been marked by constant tensions and conflicts. These conflicts are documented by a long series of lawsuits and decisions going back to 1519, before British colonial rule by the various local authorities, and later by the British and Indian courts (Dingre 1968: 60–124; Nadkarni 1970: 33–42).

Most of the documented conflicts have been between the various groups of priests. The earliest example of this is the previously mentioned Bijāpūr document which outlined the division of rights and obligations on the one hand between the priests of the Rukmiņī (the Utpats) and the Vithobā (the Badavas and Sevādhārīs) temples, and on the other between the two groups of priests of the Vithobā temple, the Badavas and the Sevādhārīs. Most cases have, however, had a bearing on disputes between the Badavas and individual

groups of Sevādhārīs. Some of these, especially a series of cases between the Pujārīs and the Badavas, have dealt with the right to the gifts of the visitors, but most of them have dealt with the privilege of performing various elements of the traditional rituals or introducing new rituals. Almost all these cases have been brought about by attempts on the part of the Badavas to take over privileges from the Sevādhārīs. Conflicts between Utpats and Badavas about the rights to perform rituals for each other's deities belong mostly to former times. This may be explained by the fact that possibilities for conflicts were few since each priesthood has its own separate temple.¹²

In addition to this, a series of cases and conflicts have taken place, which may be said to have happened in the field of tension between the Pandharpur priesthood in general, most often, however, represented by the Badavas, and the users of the temple, the public, represented either by the Vārakarī Sampradāya, the Devasthān Committee or the local government.

Best known is, perhaps, the traditional conflict between the priesthood of Vithobā and the Vārakarī Sampradāya, a conflict which inevitably has been intensified by the Vārakarīs' avowed aversion to the caste system, and which to a high degree has been about the access to Vithobā and, in case of Vārakarīs from the 'untouchable' castes, about admission to the temple at all. To this very day, the Vārakarīs are still characterised by their unsympathetic attitude towards the Brahmin priests and the traditional pilgrim's rituals, such as *tīrthaśrāddha* and *godāna*, a dislike which among members goes so far as not even to visit the temple for darśana, when they visit Pandharpur.

There have also been several litigations between the Badavas and the Devasthān Committee. Of these, one was filed by the Devasthān Committee against the Badavas because the rituals for a period in 1902 were suspended due to disputes between Badavas and Sevādhārīs, for which reason the Devasthān Committee claimed that the Badavas did not fulfil their obligations towards Vithobā and the public and asked permission of the High Court to hire other priests to perform the rituals.¹³

Finally, about cases between the public and the priesthood of Pandharpur, there have mainly been several investigations. The first of these ended in 1896 when the Bombay High Court decided on a complete set of regulations for the administration of the temple and for the privileges and obligations of the various groups of priests. This followed a period of more than 50 years full of quarrels between Badavas and Sevādhārīs culminating in 1879 with a series of violent episodes in the temple itself (Nadkarni 1970: 34).

After independence, especially two laws have caused litigation between parts of the Pandharpur priesthood and the public, i.e. Bombay Harijan (Removal of Social Disabilities) Act, 1938 and Bombay Public Trusts Act, 1950. The first, which ordered

 $^{^{12}}$ Nadkarni (1970: 39), however, refers to two cases in 1938 and 1944 regarding a Pipal-tree and the removal of a stone slab representing the nine planets (*navagraha*).

¹³ For a survey of these cases, see Nadkarni (1970: 40). The case of the Devasthān Committee against the Badavas from 1902 was appealed to the District Court in 1906 and to High Court in 1907 and was finally decided in favour of the Devasthān Committee (Nadkarni 1970: 36).

the temple to be thrown open for untouchables, resulted in litigation by the Badavas which was, however, dismissed with reference to the later Bombay Harijan Temple Entry Act, 35 (Nadkarni 1970: 38). The second, which aimed at regulating charitable and religious trusts and was potentially much more dangerous to the interests of the priesthood, cast off only a few registration proceedings (Nadkarni 1970: 178).

However, the times were not in favour of the priesthood who had for very long been publicly accused of various grievances against the devotees and visitors to the temple, and after independence, there have been two investigations, of which the first was carried out in 1964 by the Assistant Charity Commissioner, and the second by a commission from 1968 to 1970 at the request of the Government of Maharashtra. The latter was a thorough investigation of the history and conditions of the temple resulting in an almost 200 pages report which was published in 1970 (Nadkarni 1970) and served as a principal source of the present paper. Apart from the incessant lawsuits between the various groups of priests, the occasion for this investigation likewise was the many complaints from the public regarding the conditions in the temple in Pandharpur, complaints which almost all came from visitors and pilgrims, who felt that the 'religious atmosphere' of the temple was being defiled by the avarice of the local priests. As such, this report and its proposals are good examples of the 'enlightened' attitude which one often finds in the official, modern Indian viewpoint on religion.¹⁴ The report concluded in a proposal to the government to abolish the hereditary rights of the Pandharpur priesthood along with a detailed Draft of Legislation Proposed (Nadkarni 1970: 96-100 and 119-141). This proposal was later in 1974 adopted in a slightly changed form by the Government of Maharashtra under the title, The Pandharpur Temples Act, 1973. Hereafter, the hereditary rights of the priesthood were invested in a Temple Committee elected by the Government. This act was challenged in court by representatives of the Pandharpur priesthood on the grounds of being unconstitutional, a case which was finally dismissed by the Bombay High Court in 1985.

6 Conclusion

This article started out by describing some general features regarding Hindu sacred places and their priesthoods. The focus of the article was hereafter to examine how, and to what extent, these features are reflected in Pandharpur, its temple and priesthood. After a general survey of the history of the town, its Vithobā temple, and the rituals performed therein, the main focus was on the priesthood, its organisation and resources. This led to a discussion of the various conflicts, and litigations, which through history has been outplayed around the temple. These have all mostly been about inherited rights, and have, probably, been propelled by an increase in the numbers of the priesthood and decrease in their means of income. This is confirmed

¹⁴ The Nadkarni-report is thus in keeping with the important *Report of the Hindu Endowments Commission (1960–1962).*

by the fact that most of these conflicts, and litigations, have been between the various groups of priests themselves whereas fewer have been between the priesthood and the Devasthān Committee and representatives of the public, notably the Vārakarī Sampradāya. After independence and the advent of the modern state, things have been going worse for the Pandharpur priesthood. They have been forced by legislation, first, to open the gates of the temple for untouchables and, finally, to give up their hereditary rights and privileges, and leave the management of the temple to a government-elected Temple Committee. In conclusion, it would seem that compared to other larger sacred places and temples, Pandharpur and its temple, has been especially characterised by conflicts and litigation. Whether and why this is the case, is difficult to judge for the lack of comparative evidence. Certainly, however, the evidence available for Pandharpur has made an interesting study.

References

- Bombay High Court. Balkrishna P. Badve and Ors. Vs Vivekanand D. Vaskar. https://zegal.in/ judgement/balkrishna-pbadve-and-ors-vs-vivekanand-dvaskar-bombay-4862/. Accessed 31 Nov 2017
- Census of India 2011 (2015) http://solapur.gov.in/htmldocs/demog.pdf. Accessed 13 Feb 2015
- Deleury GA (1960) The cult of Vithoba. Deccan College, Postgraduate and Research Institute, Poona
- Derrett J, Duncan M (1968) Religion, law and the state in India. Faber and Faber, London
- Dhere RC (ed) (1983) Sakalasamtagāthā Vol 1. Varadā Prakāśana, Puņe
- Dingre GV (1968) A study of a temple town and its priesthood. A thesis submitted to the Department of Sociology & Anthropology, Faculty of Mental, Moral & Social Sciences, University of Poona, for the Degree of Doctor of Philosophy [unpublished]
- Dingre GV (1976) Pandharpur priesthood: its changing role, functions, and future. In: Bharati A (ed) The realm of the extra-human: agents and audiences. Mouton, The Hague, pp 423–437
- Eck DL (1996) Darśan. Seeing the divine image in India. Second Revised and Enlarged Edition, n.p.
- Entwistle AW (1987) Braj. Centre of Krishna Pilgrimage. Egbert Forsten, Groningen
- Gold D (1987) The lord as Guru: Hindi Sants in the Northern Indian Tradition. Oxford University Press, New York and Oxford
- Kane PV (1974) History of Dharmaśāstra (Ancient and medieval religious and civil law), Vol V, Part I (2nd ed). Bhandarkar Oriental Research Institute, Poona
- Kosambi DD (1962) Myth and reality. Studies in the Formation of Indian Culture. Popular Prakashan, Bombay
- Molesworth JT (1857) A dictionary, Marāṭhī and English, 2nd edn. Bombay Education Society's Press, Bombay
- Nadkarni BD (1970) Report of The Commission of Enquiry Regarding Pandharpur Temples of Shri Vithoba, Shri Rukmini, and the Pariwar Dewatas and of the Vithal Rukmini Deosthan Committee, Deputy Charity Commissioner, Bombay
- Parry JP (1994) Death in Banaras. Cambridge University Press, Cambridge
- Patnaik N (1977) Cultural tradition in Puri. Structure and Organization of a Pilgrim Centre. Indian Institute of Advanced Study, Simla
- Report of the Hindu Endowments Commission (1960–1962), Government of India: Ministry of Law, Delhi 1962

The Priesthood of the Temple of Vithobā ...

- Saraswati B (1975) Kashi: myth and reality of a classical cultural tradition. Indian Institute of Advanced Study, Simla
- Smith D (1996) The dance of Siva. Religion, art and poetry in South India. Cambridge University Press, Cambridge
- Tulpule SG (1963) Prācīna Marāțhī Korīva Lekha. Puņe Vidyāpīțha Prakāśana, Puņe
- van der Veer P (1997) (1988). Gods on earth. Religious Experience and Identity in Ayodhya. Oxford India, Delhi
- Vaudeville C (1987) The Shaiva-Vaishnava Synthesis in Maharashtrian Santism. In: Schomer K, McLeod WH (eds) The Sants. Studies in a devotional tradition of India. Motilal Banarsidass, Delhi, pp 215–28
- Vidyarthi LP 1978 (1961) The Sacred complex in Hindu Gaya, 2nd ed. Concept Publishing Company, Delhi



Erik Reenberg Sand is Associate Professor, emeritus, at the Department of Cross-Cultural and Regional Studies, University of Copenhagen. His English publications include articles on Hindu ancestor rituals in the Puranas, the history of the discipline of the phenomenology of religions, the history and rituals of the Maharashtrian place of pilgrimage, Pandharpur, religion and the Indian constitution, and the history of the early Theosophical Society in India.

Geographical Spread of Hindu Religion and Culture into the West



Martin J. Haigh

Abstract This chapter explores the spread of Hinduism into the United Kingdom (UK) using Nattier's Import-Export-Baggage model. Its uses case studies of the School of Economic Science, which was Imported from India by a British spiritual leader, the Brahma Kumaris and Bhakti Marga as Export traditions brought to the UK by spiritual leaders from India and Mauritius respectively, and the Swaminarayan Movement as a Baggage tradition that entered the UK with the Gujarati 'PIO' immigrants, who make up 70% of its Hindu community. It supplements the case studies discussed in (Haigh, The changing world religion map. Springer, New York, 2015)—Adidam (Import), Vedanta Societies, Self-Realisation Fellowship, ISKCON, Transcendental Meditation Movement (all Export) and the Hindu Temple Society of Southern California (Baggage). The pros and cons of each movement are discussed in the context of the emergence of a new 'Ekatvam' Global Hinduism, often Gurufocused, that seeks understanding and consilience with the dominant local faith traditions and that is active in creating Hindu converts using Self-development education, yoga, meditation and especially Temple culture as its recruitment methods. The impact of such Global Ekatvam Hinduism in India is discussed, especially its attempt to export its middle-class vision of modern Hinduism and congregationally oriented Temple culture back into India, as well as its uncomfortable relationship with the narrow sectarian agendas of Indian Hindutva. Finally, it joins with Professor Rana P. B. (Singh, Indo-Kyosei global ordering: Gandhi's vision, harmonious coexistence and ecospirituality. Meitoku Publishing for Toyo University, Research Center for Kyosei Philosophy (Supplement to the Annual Report of Kyosei Studies), Tokyo) in welcoming the progressive development of an Ekatvam ethic of "coexistence and equity rooted" in the concept of "Vasudhaiva Kutumbakam" in Global Hinduism.

Keywords Geography of religion · Nattier model · UK case studies · School of economic science · Swaminarayan movement · Brahma Kumaris · Bhakti Marga · Sri Chaitanya Saraswat · Impacts in India · Ekatvam

M. J. Haigh (Deceased) (🖂)

Department of Social Sciences, Oxford Brookes University, Headington Campus, Oxford OX3 0BP, UK

e-mail: mhaigh@brookes.ac.uk

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_9

1 Introduction: Out of India

Professor Singh (2011, p. 14) urges: "Let us think universally, see globally, behave regionally, act locally but insightfully". This chapter is about the social, cultural and geographical processes that guide the emergence of Hinduism as a true World Religion and the relationship between this emergent, 'brave new', globalised and cosmopolitan Hinduism and the traditional Hinduism of its Indian hearth. Park (2004, p. 440) remarks that: "Present-day distributions of religions are merely snapshots in a continuously unfolding moving film. At the global scale, two factors are particularly important ... the places where religions originated and the processes by which they were dispersed and diffused".

The snapshots in this chapter update, supplement and develop those from a previous study called 'How the West was One', which was written for the Changing World Religion Map (Haigh 2015). This USA-oriented article claims Swami Vivekananda's speech to the World Parliament of Religions in 1893 as the origin of a new cosmopolitan Hinduism and considers the work of Paramahansa Yogananda and his Self-Realisation Fellowship in helping its seeds survive and establish roots in American Society. The award-winning American Veda narrative of Goldberg (2010) begins with the Beatles pop group's visit to Rishikesh in early 1968 and then traces the roots of Hindu thought in American culture from the time of Ralph Waldo Emerson and Thoreau upwards. However, both this volume and the main part of the Haigh (2015) text focus on the interactions between the post-1965 development of, initially male-dominated 'Aquarian', later female-dominated 'New Age', 'Counter-Cultural' forms and the explosive expansion of so-called 'feral' disciplines from Hindu religious practice alongside the new Hindu Religious Movements (HRM) in the Western world. As academic contributions, both this chapter and Haigh (2015) use the theoretical framework of Jan Nattier's 'How Buddhism came to Main Street' (Nattier 1997). The Nattier model is preferred to Geography's 'modes of diffusion' model' for, while these models have much in common, Geography's model unflatteringly considers religious transmission to be analogous to the spread of disease and, inappropriately, downplays the roles of the charismatic individuals that Nattier recognises as importers and exporters (cf. Table 1; Park 2004; Nattier 1997).

Nattier (1997) suggests that religions migrate into new communities in four key ways—through conquest (thankfully not an issue here), as baggage with immigrant communities and by conversion, either performed by missionaries who have exported the tradition from its sources or by those who have discovered the tradition at source and brought its ideas back to their home country (Table 1). Kemp (2010) uses Nattier to explore the arrival of Buddhism in New Zealand but adds the participant classes of "ethnic" and "convert", which are also recognised here (Haigh 2015).

Of course, some traditional Hindus, especially in India, maintain that it is not possible to 'convert' to Hinduism because it is something that you can enter only through birth. However, this position ignores the reality that some Hindu sects actively recruit converts. These include some with universalist beliefs linked to

Nattier (1997, pp. 74–75)	Park (2004, pp. 443–444)
Import : This is demand-driven; the potential convert seeks out the faith in its heartland and brings it back home	A. Expansion diffusion occurs when a religion spreads through direct contacts between people, which makes more people aware of its existence and so seek engagement with it
Export : This is outreach driven and involves dissemination by missionary activity, usually originating from a hearth of the religion	A.1: Contagious diffusion is where the religion spreads "like a disease" through direct, everyday contact between believers and non-believers. So the religion spreads "like a series of concentric waves moving over the surface of a pond after a stone has been thrown in"
Conquest . Here, religion is imposed by a conqueror on subject people through conversion, which could be forced or encouraged by economic or social coercion. Until very recently, this was thought to be an aspect of history, something unpleasant from the past	A.2. Hierarchical diffusion is where the religion spreads downward through society after implantation at the top, such as when missionaries convert kings or opinion leaders and others follow their example
Baggage religions are those that travel along with migrating people. They are transmitted whenever and wherever religious individuals, families, or communities move or are moved, to a new place	B. Relocation diffusion , classically through migration, occurs whenever the initial carriers, perhaps communities of believers, sometimes missionaries, move to new locations and begin to practise their beliefs

 Table 1
 Two geographical models for the spread of religions

Advaita Vedanta, some who argue that devotion is more important than birthright, including many Bhakti (devotional) traditions and some allied with modern reformers who reject the casteism and inherent racism of much Hindu tradition. In an unlikely alignment with the socialistic views of India's great reformers, this concept is accepted by India's *Hindutva* right-wing nationalists. The Vishva Hindu Parishad (VHP) not only encourages the 'reconversion' (*ghar wapsi*) of Indian people born in Christian and Muslim minorities, sometimes forcibly according to media reports, but also suggests, with VHP President P. Togadia, that in former times Europe, Arabia and Africa, possibly more, were Hindu lands and, hence, that their peoples are suitable for 'reconversion' (Kulkarni 2014).

Previously, Haigh (2015) illustrated Nattier's processes with seven American case studies. Adidam, the creation of American guru Adi Da, was employed to exemplify an import tradition. The Hindu Temple Society of Southern California exemplified a Baggage tradition while the early Vedanta Societies of Swami Vivekananda, the Self-Realisation Fellowship of Paramahansa Yogananda (SRF) and from the 1960s, the Maharishi Mahesh Yogi's School of Transcendental Meditation and International Society for Krishna Consciousness (ISKCON)—the Hare Krishna movement, illustrated different styles of export tradition. Haigh (2015) continued to note how the

character of ISKCON has evolved in the years since the 1977 death of its charismatic acharya founder, Srila A. C. Bhaktivedanta Swami Prabhupada, when, instead of quietly fading away, the movement spread into Eastern Europe, became a major community and cultural focus for Hindu diaspora communities in the West and, after re-introduction to India, grew to be a significant presence in many Indian cities. Haigh (2015) finished by observing the expansion and transformation of a Hindu discipline, Yoga, which has been torn from its religious roots and imported into the non-religious contexts of health and wellness, 'Mind, Body and Soul', programmes in health clubs, spas and gymnasia around the world.

This new chapter develops these ideas but shifts its focus to the UK rather than the USA and toward the role of the diaspora, which, proportionally, has a much larger presence in the UK, some 800,000 people, 70% of them Gujarati in origin (Bauman 1998a). In the USA, there is some kind of numerical equivalence between the two categories of 'convert' and PIO (Person of Indian Origin) 'ethnic' but the UK situation is much more dominated by the 'ethnic' category. While there are substantial convert participation in the case of the two 'Import' and, to a lesser degree, the 'Export' case studies described here, 'Baggage' traditions are far more numerous and their many participants are almost entirely PIO 'ethnic'. Of course, most of Haigh's (2015) USA case-study movements also have a presence in the UK while ISKCON, an Export tradition, whose early (convert-dominated) days in the UK are lovingly detailed by Prime (2009), has a very strong (albeit now PIO 'ethnic' dominated) core membership and congregation.

However, this chapter introduces some new examples and identifies a relatively new phenomenon, which is an export movement that has migrated to the UK from the diaspora and from somewhere other than India. The new case studies are: the School of Economic Science (SES), an import tradition that emphasises Advaita Vedanta and the Sri Chaitanya Saraswat Math (SCS), an ISKCON splinter that imported a new Indian Guru after the passing away of ISCKON's Founder Acharya Srila A.C. Bhaktivedanta Swami Prabhupada. Two export traditions are discussed: first, the originally Sindhi, now Gujarat-based, Brahma Kumari World Spiritual University (BKWSU) and, second, the Bhakti Marga, which came to the UK from Mauritius and so provides that unusual example of transmission from the diaspora. Finally, it discusses the Swaminarayan Movement, a bhakti Baggage tradition that Williams (1984, p. xii) calls "one of the more recent and important of the religious exports of India". It is worth noting, immediately, that the SES considers itself a philosophical rather than a religious movement and that ISKCON, the SCS, the Brahma Kumaris and the Swaminarayan Movement are considered variously 'neo-Hindu', 'post-Hindu' and sometimes 'new religions' in their own right (Partridge 2004; Williams 1984).

For Campbell (2007), the 'easternization' of the West is a major cultural shift, for others, it is a "reinvention of spirituality" (Goldberg, 2010, p. 339). However, for the most part, the story of the rise of the new Hindu Religious Movements, the West's 'Age of Gurus' (during the heyday of the 'Hippy', Aquarian, New Age movement(s) with its links to popular music stars, notably the 'Beatles') is regarded as a mildly curious footnote in the annals of later 20th-century popular culture (Haigh 2015). Today, society has changed. Indian Gurus, their activities and their converts, rarely

make headlines. Many of the older movements are fading. Few of their successors have achieved a similar impact, at least outside the realms of Yoga practice. A few continue to thrive, notably ISKCON and, more recently, the 'Art of Living' movement of Sri Sri Ravi Shankar, a disciple of Maharishi Mahesh Yogi and Advaitism, which is now active in 152 countries (Art of Living, UK 2015). By contrast, the greatest impact is being made by the Baggage traditions (Nattier 1997), whose new temples are changing the character of both Western and Indian cities as their communities grow in wealth and self-assurance (Fig. 1).

One side-effect of this upsurge in the wealth and self-confidence of the PIO (Persons of Indian Origin) diaspora has been an upsurge of investment going back into India. A prime example is the construction of the monumentally huge, new, Akshardham Temple complex constructed by the Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha (BAPS) in Noida Mor, Greater New Delhi, with its 43 m high dome and 3.4 m high golden image of Sri Sahajanand, its musical fountains and Disney-world-style boat-ride through Indian history. This temple results from the work of more than 3,000 volunteers and 7,000 artisans. It "brilliantly ... epitomizes 10,000 years of Indian culture in all its breath-taking grandeur, beauty, wisdom and bliss" gushes the Delhi Tourism authorities (Delhitourism 2015). Similarly, in the naïve eyes of this author, Akshardham is a healthy sign of an India, which after centuries of domination by conquerors and colonialism, has at last begun to



Fig. 1 Shri Vallabh Nidhi UK's Shri Sanatan Hindu Mandir, Alperton, London. (Completed 2010). *Picture credit* M. Haigh

reclaim its pride, its self-confidence and its history. For the author, this is not aggressive and divisive Hindutva, nor is it the religious fanaticism that Swami Vivekananda spoke so strongly against (Vivekananda 1893). It is an investment in self-respect. Naïve perhaps, but personal experience in the UK shows Swaminarayan devotees to be outgoing, deeply spiritual, socially and environmentally conscious, gentle and cosmopolitan (Kim 2009).

Of course, my respected friend, Professor Rana P. B. Singh, does not share this view. He writes:

The Swaminarayan Akshardham temple (36.5 ha area) in Delhi, consecrated and opened on 6 November 2006 is a modern grandeur of Hindu sculptural art and symbol of how the rich class can create the new world of religious scenario where old vision of darsana and pilgrimages meet the new kind of religious tourism (Singh 2011, p. 327).

He protests that:

... temples are places for worship and hence restaurants, boating facilities and other entertainment facilities cannot be part [but they] predominate the overall scene in the case of Akshardham. ... In the case of Akshardham temple, of course, people also go for spiritual merits but these are superseded by the modern tourist's facilities like arrangement of specially designed peacock shaped boats where visitors sit and make their way around an artificial river, passing through a model of Takshashila, the world's first university, chemistry laboratories, ancient hospitals and bazaars, finally ending with a message expressing hope for the future of India. These arrangements fit to the present mind-set of newly growing bourgeois classes. (Singh 2011, p. 327).

(Of course, Akshardham is only the first in a new class of religious temple, which may soon include a Krishna 'Theme Park' in Bengaluru among many other strange new developments.) Professor Singh continues by noting the impact, economic exclusivity and political implications of the new Akshardham Temple complex.

Presently, Akshardham temple is one among the top five places for sight-seeing in Delhi. Through propaganda, media and advertisement, now this place is considered to be a powerful temple; again it be noted that this is mostly for rich people because poor masses cannot afford to pay an entrance fee of Rs. 200 and other fees at different places of amusement and food. However, now the temple has encouraged people for Delhi Yatra and consequently is used as resource by politicians through their tricks of emotional blackmailing.... By displaying centuries-old traditional Indian and Hindu culture, spirituality and architecture, the Akshardham temple succeeded in making an image that modernity also be accepted as a process that maintains and revive the age old ... religious traditions of India. But one can think the other side that all such awakenings are at what cost and for whom? The people from countryside and the poor masses could no way afford to pay the entrance fees and other payments for amusement and even food available there. In a way, such a huge and magnificent Disneyland structure can help the rich to make their life better and make their identity higher.... (Singh 2011, pp. 327–328).

Akshardham is the Swaminarayan's name for heaven and Professor Singh concludes with an ironic quote from an earlier paper: "Even the kingdom of God is controlled by rich and powerful humans" (Singh 2009, p. 398). So, Akshardham represents a new commercialised, 'Disney-fied', Hinduism that appeals to the wealthy middle-class and nouveau riche elites of Indian society and that feeds the

propaganda machines of India's Hindutva politicians (Srivastava 2009). Hanna Kim also notes:

With some exceptions, the more common response of academics to the newly constructed carved Swaminarayan temples is to see them as representative of a "monolithic," "essentialised" Hinduism and as a disturbing indication of the "rich Gujarati" immigrant's effort to camouflage an authoritarian and fundamentalist Hinduism in the guise of striking architecture, modern technology and spectacle. (Kim 2009, p. 358).

However, Kim (2009, p. 370) also comments on the motivations of the constructors: "The carved stone mandir... reveals in the most concrete way, the devotional commitment of *satsangis* to Swaminarayan teachings and their determination to direct their resources towards its realisation." The temple is conceived as the house of God and Guru, its creation and construction is an act of devotion and service to the Divine. "From the fund-raising to the final stone polishing, thousands of *satsangis* have voluntarily contributed to mandir projects as a means by which to cultivate themselves into an image of the ideal devotee; one whose behaviour is mimetically connected to the Guru and is therefore, like the Guru, in a constant state of serving Bhagwan".

One hears similar commitments expressed towards ISKCON's vast and nearly completed Sri Mayapur Candrodaya Mandir (Temple of the Vedic Planetarium) in West Bengal,¹ the SVN (UK)'s new temples in Leytonstone and Alperton, London (Fig. 1²) and the deluxe new BAPS Swaminarayan Temple in Leicester.³

Swaminarayan temples are also ways of communicating their version of bhakti devotion to the wider public and their contexts, while their exhibitions aim to make Swaminarayan's teaching understandable by outsiders, wherever they may be; Akshardham-like structures are now the features of many cities in the West. This activity is also about positioning Swaminarayan's modern devotional tradition within Hinduism and within Indian culture. This has been done very successfully in the UK, where the BAPS Swaminarayan Temple in Neasden, London, is viewed as Britain's most authentic Hindu Temple by much of society; although in truth, it is anything but traditional.⁴ These activities merge with a second role common to many diaspora cultures, which, unlike temples in India. also function as community centres. Their particular goal is that of maintaining the culture of older generations amongst new generations who, naturally, identify strongly with their local peers and their culture. So, for example, the 2014 Swaminarayan Gadi Temple in North London offers classes in Gujarati, in an attempt to keep alive a language associated mainly with home and Grandparents (Fig. 2⁵).

Kim (2009, p. 380) adds the following telling comment: "A senior official at the New Delhi Swaminarayan Akshardham told me, "Most of Hindu organisations say we are not Hindu enough. And, most of academic world says we are too Hindu"

¹ https://tovp.org.

² http://svnuk.org.

³ https://www.baps.org/Global-Network/UK-and-Europe/Leicester.aspx.

⁴ http://londonmandir.baps.org.

⁵ https://www.swaminarayangadi.com/london/index.php.



Fig. 2 Swaminarayan Gadi Temple, Kingsbury, London, inaugurated August 2014. *Picture credit* M. Haigh

and concludes by reflecting on the Swaminarayan Movement's positive impacts on the art and traditions of stone carving in India. Kim (2009) also notes how critics, devotees, politicians and tourist/pilgrim visitors of every category (Singh and Haigh 2015) are all co-participants in the creation of the public image and qualities of a new modern, globalised Hinduism, about which most would feel squeamish.

In 2015, while visiting Bengaluru, the author offered 'How the West was One' (Haigh 2015), as a small educational entertainment to a group of UK 'study tour' undergraduates. At the time, it never occurred that talk of California and the 'Hippies' of the Sixties might be hotly controversial in India. However, I found myself being harangued by the angry owner of the resort where we stayed. The heckler, a product of India's most Anglicised elite upbringing, professed to speak for the poor and low caste, for the 'people'. Amidst much ranting, some useful points were made and I was provided with a perspective that I might not have obtained by other means. In 'How the West was One', I wrote about the closed nature of the Hindu Baggage traditions, who may sometimes make great efforts to be friends with their host communities but who have no desire to obtain converts or accept outsiders. In my view, the role of these closed communities in Western culture is neutral (Haigh 2015). Their temples, like those of the BAPS Swaminarayan Movement, are interesting new features of the urban landscape but their religious activities are of significance only to their own people.

This may be true in the West but, apparently, it is not the case in India. My heckler was deeply upset about their impact in India, where New Delhi's Akshardham forms the tip of an iceberg. Certainly, these PIO communities are a powerful economic force with a major impact on pilgrimage sites and high-end tourist infrastructure (Singh and Haigh 2015). Importantly, such people dream of an India that is holy, spiritual and ancient and are willing to invest heavily in their dream, even to the extent of building it themselves. This is NOT India', shouted my heckler and I reflected upon America's Las Vegas dreamscapes that include hotels styled after the Great Pyramid, Eiffel Tower, Bellagio Palace and other Old World icons.

During my visit to New Delhi's Akshardham bookstore, I found myself asking the help of a devotee, who turned out to be from North London and who was taking time out from his business to undertake *seva* (service) at the New Delhi temple. 'Sharma (2014), following Cohen (1996), lists the several features commonly displayed by diasporas: (i) folk memories either of forced departure from their original homeland or of migration from the homeland in search of a better livelihood; (ii) a strong ethnic self-consciousness (e.g. http://hinduforum.eu/about; Zavos 2013); and, most importantly here, (iii) a collective, mythologised, memory of the ancestral homeland, including its location, history and achievements as well as a deep commitment to its maintenance, wellbeing and, if necessary, its creation.

However, this was not the only problem. 'I hate these people', wailed the heckler, about the heroic missionaries of the diaspora. 'They represent no-one, 99% of India is not there'. True, Swami Vivekananda, the Maharishi and many others, emerged from a small Indian spiritual elite, the Westernised purveyors of Vedanta, mainly the impersonal Advaita Vedanta. Arguably, ISKCON's Bhaktivedanta and its many cousins, including the Bhakti Marga of Swami Vishwananda, which is discussed here, tap into larger bhakti, devotional, movement in India. However, the bulk of India's Hinduism, especially its closed and 'small' traditions, are less about religious fervour and the search for liberation, *moksha*, than about wish fulfilment and a way of life: social cohesion and social dharma anchored by *samskara* ritual. Certainly, these traditions are less visible in the outside World; most of them have not and do not travel. Hence, they affect the world outside India only when a whole community has been displaced either by economic migration, by India's partition on Independence, like parts of the Sindhi Lohana community in the UK and Gibraltar (Haller 2003; Peck 2015), by Imperial transportation, perhaps as indentured labour, as in Mauritius and Fiji (Eisenlohr 2016), or by expulsion in the aftermath of decolonisation as in East Africa (Anders et al. 2018). However, the make up, thinking and sense of identity of these diasporic Indias all differ, often dramatically, from those of the mainstreams in India.

Keeping such matters in mind, this chapter now moves on to consider an array of case studies demonstrating some different forms of migration for Hindu traditions. This begins with two 'Import' traditions, moves on to examine two very different 'Export' traditions and concludes with discussion of a modern Hindu movement that has arrived with its ethnic community, a 'Baggage' tradition (Nattier 1997).

2 Import Traditions

2.1 Case Study 1: School of Economic Science, London

Originally, the Henry George School of Economic Science was a political organisation linked to the UK's Labour Party and focused on promoting economic justice. From 1937, it offered free lectures on economics. After 1942, it parted company with the ideas of Henry George and became the School of Economic Science (SES). After the Second World War, SES's leader, Leon MacLaren, called the 'Pinstripe Guru' for his formal attire, became convinced that economic problems could be solved only if the fundamental nature of humans was transformed. Consequently, in the 1950s, philosophy entered the School's remit. Initially, MacLaren's search led him to the 'Fourth Way' philosophies of Gurdjieff, as interpreted by his disciple Ouspensky (1957). These ideas include the notions of 'Schools' of ancient esoteric knowledge that allow participants to leave behind the world of suffering and achieve immortality within the 'Absolute'. However, after meeting the Maharishi Mahesh Yogi in 1961, Leon MacLaren travelled to the Maharishi's spiritual home in 1965, the Jyotir Math in Varanasi, one of the five centres established by Adishankaracharya in the 8th Century for the teaching of Advaita Vedanta, an orthodox Indian philosophical system of non-Dualism and an aspect of an elite, intellectual, form of Hindu universalism.

Here, MacLaren met Shantanand Saraswati, who was Shankaracharya of Jyotir Math from 1953 until 1980 and a supporter of Maharishi's approach to meditation, which he called the "master key to the knowledge of Vedanta" (Mason 2005, p. 58). "The whole universe is divided into two, I and the rest! This is the world of division and we live in this world of duality. The method of meditation is to lead us from duality to unity." (Shantanand Saraswati 1987). The SES's Leon MacLaren and, until his death, a colleague—Francis Roles, were prominent and regular visitors until 1993 (MacLaren Foundation 2014). Records of Leon MacLaren's 'Conversations' with his guru became key texts of the SES and Advaita Vedanta Philosophy became "effectively the main subject taught in the School for more than 2–3 years" (SES 2015). Super Shantananda (1087, p. 0) effore a tasta of his tanghing.

Swami Shantananda (1987, p. 9) offers a taste of his teaching:

Within and without are the same. The Absolute is in all. All beings are a part of the same... The Absolute is Truth, Consciousness and Bliss. The creation is for bliss. It is a play and the play is only for enjoyment... The Absolute creates and enjoys without getting involved, only as a witness, but man prefers to enjoy as a doer and not as a witness..." MacLaren adds: "The School like everything else begins in the Absolute. (Hodgkinson 2010, p. 1).

Swami Shantananda continues: "Love is the motive force behind all the processes at work in the world to sustain it... A love free from duality is true love" (Shantananda 1987, p. 35). "We have to cleanse our inner being. There is dirt here due to the Gunas..." (the three modes of Nature) (Shantananda 1987, p. 40). Later, he describes a ladder of seven steps by which this may be achieved.

Unfortunately, in contrast to Roles, who stressed the role of love, the SES's Leon MacLaren was something of a disciplinarian (MacLaren Foundation 2014). The consequences could be negative and have resulted in the SES suffering reputational damage for the use of corporal punishment in its schools, mistreatment of women and a tendency to harm the family lives of its core membership. When I asked at Waterperry, Oxford, about the SES owners of the main house on the estate, I was told simply that it belonged to a 'cult'. Indeed, the great exposé on the SES, written by reporters from the London Standard, was entitled 'Secret Cult' (Hounam and Hogg 1984). Before Hodgkinson (2010), this book was still called "the best study of the SES... despite a lack of scholarly objectivity and some controversial claims" (Partridge 2004, p. 333). Its chief complaints concern the SES's 'wall of secrecy' and its 'covert' teaching of Eastern ideas, often through the medium of Sanskrit. In fact, the case made by the book is far more nuanced than its cover's screaming about a 'strange and destructive organisation' suggests. Much of the negativity seems to be a knee-jerk reaction to the un-Christian, Eastern ideas imported from Swami Shantananda, the complaints of some very disaffected members and children of members and its connections to political parties. However, the SES has never entirely shaken off its 'cult' label.

Sanskrit is key to the SES (Douglas 2013). Its viewpoint is heavily indebted to both Vedanta and the teaching of the classical Grammarian Philosophers, especially Panini and Bhartihari (Coward and Kunjunni Raja 1990). For SES teachers, the creation of the material universe and the creation of language, of which Sanskrit is considered the purest form, is part of the same process operating at different levels. The ancient Grammarian philosophical classic, Sri Bhartihari's '*Vakyapadiya*' Canto 1, verses 1-2, translate as:

The Word is the essential nature of Brahman, which has neither beginning nor end. It is that principle of sound, the eternal Aum and it gives life to the transient objects of Prakriti (material Nature). (Raghavan Pillai 1971).

Similarly, the first verse of hymn 71 of Book 10 in the even more ancient *Rg Veda* translates as: "When Lord Brhaspati, giving names to objects, created the first words, all that was excellent and pure was revealed by their love and power" (Griffith and Shastri 1973). For SES teachers, the universe is spoken into existence. Douglas (2013, p. 2) quotes Swami Shantananda: "Brahman is the word and the word is Brahman. The consciousness first originates as word..."

Today, the School of Economic Science (SES), aka the School of Practical Philosophy, recruits by means of introductory courses in 'Practical Philosophy', which include topics such as 'The Wisdom Within', being in the fashionable 'Present Moment' and Adishankaracharya's ideas as 'The Light of Reason'. The movement is worldwide, its perhaps 2500 UK members supplemented by some thousands more in branches based in more than 18 nations worldwide and it runs a handful of feepaying schools where SES thinking is incorporated. It claims to have affected the lives of hundreds of thousands through its courses (Hodgkinson 2010) where, in particular, SES members are leading lights in the promotion of Sanskrit education in the UK and elsewhere. However, the SES's reputation is not helped by continuing rumblings of controversy in the media while its membership remains mainly Western and somewhat middle aged.

2.2 Case Study 2: Sri Chaitanya Saraswat Math, London

In India, the Sri Chaitanya Saraswat Math (SCS) shares the same spiritual roots as ISKCON but antedates its creation. However, in the UK, the SCS emerged from a splintering of ISKCON in the troubled years after the passing of its charismatic founder acharya, A. C. Bhaktivedanta Swami Prabhupada. The issue resolved to a problem of succession. Srila Prabhupada had set up his world Governing Body Council to continue his work, which included providing the service of guru to aspirants. However, since ISKCON was a young movement, most of the new gurus were western converts in their thirties and many, perhaps most, were simply not up to the challenge. Their 'failings' have been catalogued endlessly by those who wished that the late Srila Prabhupada, alone, should remain the movement's only initiating guru, notably, the (*ritvik*) ISKCON Revival Movement⁶ and the tales are very sad for all concerned. Of course, many disciples became disaffected because of the failings of their new 'gurus' and many left or, through complaint, were thrown out of the movement. Amidst this turmoil, some Western devotees sought shelter at the source, among the other disciples of Srila Prabhupada's own guru, Srila Saraswati Thakura, in the organisation he founded in 1920, the Gaudiya Math of Bengal. In 1979–1980, initial approaches were made to Srila Guru B. R. Śrīdhāra Swamī, who founded his Sri Chaitanya Saraswat Math, within the Gaudiya Math, in 1941 and who was well known in ISKCON through having acted as advisor after Srila Prabhupada's passing (Bhavana Vishnu 2004). At first, these representations were declined because, at age 86, the Guru did not feel he was able to take on such new responsibilities. In 1981, however, sympathising with the distress of these spiritual 'refugees', he agreed to place these Western 'would-be' disciples under the wing of his successor-to-be, Srila Govinda Maharaj (Sripad Hrishikesa 1990). Established in 1983, the Sri Chaitanya Saraswat Math London Chapter is now the UK's branch of an organisation that claims 50 centres worldwide. The UK's original SCS temple is in a small terraced house in Upton Park, E. London (Fig. 3), although in August 2014, a new 'flagship' centre was opened as the 'Bhakti Yoga Institute' in Feltham, West London.

SCS core membership in the UK is cosmopolitan but tiny, perhaps a tenth of ISKCON's 200–250 (Andrew 2007) and its congregation is dwarfed by the diaspora dominated ISKCON. However, it continues to thrive and its adherents retain respect among many ISKCON devotees because of their more conservative approach to the development of devotion ($r\bar{a}g\bar{a}nug\bar{a}s\bar{a}dhana$) (DiCara 2014), their less restrictive approach to initiates and, despite a draconian rulebook, their more relaxed and inclusive approach to visitors. The SCS also uses slightly different texts in services (*Arti*).

⁶ www.iskconirm.



Fig. 3 Sri Chaitanya Saraswat Math, East London, 2018 and 2019. Picture credit M. Haigh

3 Export Traditions

3.1 Case Study 1: The Brahma Kumaris

The Brahma Kumaris World Spiritual University (BKWSU) (aka Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalaya) may have a million or so 'members', the vast majority women, in more than 100 nations (Whaling 2012). Most are in India; there are less than 500 core members in the UK, according to the 2011 UK census, where the BKWSU has counted as a religion apart from Hinduism, like Buddhism and Jainism. There is a continuing debate about whether the BKWSU is Hindu, 'neo-Hindu',' post-Hindu', 'New Age' or just a new, or 'nascent', new religion (Mayer and Kranenborg 2004). Critics say that the BKWSU neither follows nor promotes Hinduism; it simply uses the language of Hinduism and the New Age to attract adherents; however, BKWSU activities, objectives and terminology are distinctively Hindu (Waliss 2002).

The BKWSU began in 1930s Hyderabad, Sindh, with a wealthy diamond merchant's, later Dada Lekhraj or Prajapita Brahma, visions of Sri Vishnu. Early meetings were dominated by women and, after selling his business, Dada Lekhraj set up a trust that was led by 11 young women. The key role played by women and its

commitment to celibacy resulted in some persecution and the movement re-centred itself, first in more cosmopolitan Karachi and then, with the partition of India and the consequent dispersal of its Sindhi Hindu population (then about 25% of the total), it moved to Mount Abu in Gujarat, where its Headquarters remain. The movement began its overseas adventures in the 1950s (Whaling 2012). However, its London Centre, established in 1974, under the leadership of a woman, Dada Janki, became a hub for further international expansion. Dada Janki writes:

A beautiful sense of being is soul consciousness, where your whole sense of self is shifted from a physical identity to a spiritual one. In soul consciousness, you no longer feel yourself to be male or female, black or white. No worldly achievement forms your self-esteem. (Dada Janki 1996, p. 142).

In sum, as other westward-leaning Hindu traditions preach (but generally fail to practice), your physical body matters little, your spiritual self is all important.

The Brahma Kumaris demonstrate this most clearly with their award of leadership status to women; most Hindu and new religious movements are patriarchal but not the BKWSU (Howell 1998). Of over 40 centres in the UK, two thirds are run by women, who also make up 80% of the membership. Of her personal journey, Dada Janki (1998, p. 122) says:

In many areas of society, a woman's views are not really heard... no matter how hard she tries to express herself... The feeling that is created is ... that she has been deceived. By everyone, husbands, children, politicians, doctors, lawyers, teachers, even religious leaders... The result is that women have lost their trust... This is one of the reasons why a woman is often receptive to the love of God... God alone knows her... Also, God is known as the one who uplifts the downtrodden. God's love not only uplifts, but it also validates.

Back in India, from the 1980s, the BKWSU began to win recognition from both the Government of India and Hindu leaders. It has hosted multiple international Peace conferences at its Mount Abu HQ in Gujarat. Its contribution to the 1986 International year of Peace, its 'Million Minutes of Peace Initiative', won it multiple 'Peace Messenger' awards from the United Nations and, in 1988, it launched its 'Global Cooperation for a Better World' programme from the UK Houses of Parliament (Whaling 2012).

Of course, not everything about the Brahma Kumaris is peace and light. The wealth and energetic public relations activities of the BKWSU offend many who would link religion with renunciation and poverty. The BKWSU emphasis on celibacy and withdrawal from the world has been criticised as also their techniques of 'mindcontrol' by those who see the BKWSU as a 'cult'. So too, their core texts, the *murlis*, which are homilies channelled by BKWSU leaders from Lord Shiva then read daily to guide members.

More seriously, some worry because the movement contains a belief in the imminent end of the world, which has already been predicted on several occasions (Brahmakumaris.info 2015). As in Hindu tradition, the BKWSU believes in a cycle of time but their version is just 5000 years, much less than the billions of years calculated by the Hindu Purana-s. In BKWSU eschatology, the Brahma Kumari's version of Shiva, Shiva Baba, the Supreme Soul—who exists as a point of light (Strano 1999) and who is part of the world-soul that guides the current 'Confluent Age', will, as in much Hindu tradition, effect the world's final destruction and renewal (Whaling 2012). This 'Destruction' will begin a 'Transformation', where the Brahma Kumaris, who alone of all religions possess sufficient spiritual purity, will lead the new postapocalyptic world as deities, modelled on the deities of Hindu tradition. During this transformation, it will be for them, along with key enlightened souls like Sri Krishna and Jesus Christ, to establish a new Golden Age. In their analysis, withdrawal from this present corrupt world to establish oneself in ascetic purity, as symbolised by the Brahma Kumaris' white costumes, is a good investment in the future.

Wallis (2002) makes much of a superficially apparent contradiction between core teachings, which reject the current world and aim to prepare a few to guide the world that will follow, with activities in the present world that try to make the world a more peaceful and spiritual place. As Patil (2013, p. 218) writes:

corruption is the root cause of man's social and economic evils. Thus the institution advocates for value education ... This spiritual university envisages a society in which there will be no class conflict, no racism, no casteism, no wars and no disease. It will be a society free of social turmoil, feudalism, monarchical curbs on individual freedom...

Naturally, the Brahma Kumaris, who see themselves as world guides of the future and, as the only Brahmins in the present world of Sudras, consider it their duty to work in the here and now to hone and demonstrate their qualities by serving the present world as a model of good management, effective leadership, community service and spiritual purity. They build hospitals in India and elsewhere and, like the Netherlands-based Maharishi University of Management, teach management and leadership. In Mexico, the BKWSU 'Self-management Leadership' programme, which is based on philosophy and meditation, has been rolled out to 25,000 top government officials (Musselwhite 2009).

Such activities are less evident in the UK. Here, 48 BKWSU centres and 'subcentres' offer free educational programmes to those seeking to understand "universal spiritual principles and learn a range of spiritual skills" (Brahma Kumaris, UK 2015, p. 1). Since 1993, the BKWSU flagship centre in the UK has been the Global Retreat Centre at Nuneham Park, near Oxford, which runs courses on meditation and Raja Yoga. Defining spirituality as "knowing how to live with meaning and purpose", its recruiting message to spiritual seekers, who are mainly Western and again, early middle aged, is to "come to restore balance and focus ... away from the frantic pace of modern living and to rediscover... inner peace and power" (Global Retreat Centre 2015, p. 1; https://www.globalretreatcentre.org). Their means includes meditation, which, in New Age style, is called: "simple and easy to do" (Global Retreat Centre 2015, p. 1).

3.2 An Export Tradition: The Bhakti Marga from Mauritius

Founded in 2005 by Swami Vishwananda, the Bhakti Marga claims thousands of supporters around the world, 30 countries in all, but especially Germany and Eastern Europe. The movement emerges from Mauritius, a plantation colony, where modern Hinduism is tinged with a Gandhian ethos and a place that has been active in reconstructing a new sacred 'India' on its own soil (Eisenlohr 2013; Seewoochurn 1995).

As its name suggests, the Bhakti Marga is a more mainstream devotional movement that charts a path from "love, patience, unity" and devotion towards Selfrealisation (Bhaktimarga.org 2015). The presence of Bhakti Marga (UK) is tiny and focused on two techniques: 'Atma Kriva Yoga' and 'OM healing' alongside traditional Hindu prayer rituals, meditation and *japa* (mantra recitation). However, this movement demands attention for several reasons. First, it is a rare example of a formally Hindu tradition that has been exported from the diaspora, in this case of Mauritius. Second, its guru, Sri Swami Vishwananda, was the first foreigner with non-Indian disciples allowed to join India's official Kumbh Mela Shahi Sangam bathing procession of Sadhus and Akharas. Third, the Bhakti Marga displays classical diasporic features, such as a willingness to imbibe aspects of Christianity and to recruit non-ethnic PIO disciples. According to the Mauritius website (Bhakti Marga Mauritius 2013, p. 1), Sri Swami Vishwananda "teaches to go beyond the boundaries of religions and to experience the all-connecting unity behind the conceptual differences.... His teachings offer precious inspiration and practical methods that help us to find Divinity and Divine joy in ourselves". In fact, an early Bhakti Marga logo was the Hindu Aum coupled with the symbols of the key Abrahamic traditions. It was conjoined with a cross and included a small Islamic crescent (raif) and Star of David (bindu) (Swami Vishwananda 2009). Currently, this symbol has been replaced by a white horse rearing from a lotus, which has curious echoes (perhaps unconscious) of Adidam's Dawn Horse, which also signifies transformation and new beginnings, coupled, in the Bhakti Marga's case, with the future appearance of Kalki, the 10th avatar of Sri Vishnu, who will usher in a New Age (Haigh 2015; Bhakti Marga Kenya 2015).

In Mauritius, Swami Vishwananda's movement is linked with three temples, two of which (Fond-su-sac and Quatre Bornes) are devoted to Shirdi Sai Baba, a saint with Hindu, Muslim and Zoroastrian devotees (including Meher Baba), who taught from a mosque that he gave the Hindu name '*Dwarakamayi*'. Sai Baba's universalist teachings include the notion of *ekatvam*, oneness, which argues that all religions are paths to the same final goal of liberation (Rigopoulos 1993). The third at Rose Hill, Mauritius, which was built by Swami Vishwananda in 1998, is dedicated to Sri Ranganath (Lord Mahavishnu as worshipped in Srirangam, South India), Shirdi Sai Baba and the Vishnu avatar Nrsinghadev (Bhakti Marga Mauritius 2013).

The Bhakti Marga has strong links to other Western Hindu traditions. For example, Paramahansa Yogananda may be some kind of role model for the Guru (Swami Vishwananda 2009). Certainly, Swami Vishwananda claims to have been initiated

by Mahavatar Babaji whom he met outside a hospital in Mauritius as a child and who is held in high regard by many Hindus around the world.⁷ Mahavatar Babaji is an immortal, who appeared shortly after Lord Krishna left this planet, who promoted the discipline of Kriya Yoga, who is also revered by Paramahansa Yogananda's Self-realisation Fellowship (Swami Vishwananda 2009; Babaji 1994; Haigh 2015). Babaji is cited as the supreme Guru of the movement.

In sum, Swami Vishwananda emerges from the diasporic guru episteme and his teaching involves Guru-disciple relationships slightly reminiscent of Adi Da (Haigh 2015). Sri Swami Vishwananda; says: "I don't teach the way a normal teacher will teach you. I teach you through life, through experience, through challenges" (Vishwananda 2009). Membership of the Bhakta Marga is mixed, inevitably relatively youthful and many of its secondary Swamis are Western converts.

4 A Baggage Tradition: Swaminarayan

The final part of this section deals with a baggage tradition that arrived in the UK with its Gujarati diaspora. In truth, this is one among many such traditions, albeit a conspicuous one because of its custom of building spectacularly ornate temples. Each year, at Ram Navami, the Leicester 'Friends of the Oxford Centre for Hindu Studies' organise a 'Tirtha Yatra' aka 'sponsored walk' around the many temples of Leicester City's central areas, traditionally some 15 or 16. These temples all support ethnic PIO communities and, apart from ISKCON, there are very few converts at all. They include a very nice (Tamil) 'Shri Shiva Murugan' temple (in what seems to have been a converted garage, Fig. 4), the original 'Sri Sri Radha Krishna Temple' from 1969 (in a former corner shop), as well as the pan-Hindu 'Shree Hindu Temple and Community Centre' and the flagship 'Sanatan Mandir'. Others include the 'Gayatri Parivar', 'Shree Ram Mandir', 'Shree Jalaram Prarthna Mandal', the BAPS and ISSO Swaminarayan Temples, 'Geeta Bhavan', Brahma Samaj 'Shivalaya', Shree Lohana Mahajan Trust, Shirdi Sai Baba Temple, Mandir Baba Balak Nath Ji and the 'Shrinathjini Haveli' of the Vaisnav Sangh (UK). The UK history of many of these organisations would offer valuable and fascinating case studies - but this chapter deals with the Swaminarayan Movement alone.

Founded in early Nineteenth Century Gujarat, Swaminarayan Hinduism is a devotional, bhakti, movement in the Vaisnavite tradition, whose followers recognise their Adiguru, Sri Sahajanand, Bhagwan Swaminarayan, as the final, perfect manifestation of God, supplanting even the Guru's own *ishta devata*, Sri Krishna (Kataria 2013, see: BAPS Sadhus 2010: *Vachanamrut—Loya* 14). In Gujarat, Bhagwan Swaminarayan famously campaigned against the caste system and for the emancipation of women, elimination of social vices and abolition of animal sacrifices. His edicts in the *Shikshapatri* provide his followers with strict behavioural and ethical guidance in matters both personal and business-related. His larger shastra, the *Vachanamrut*,

⁷ https://bhaktimarga.co.uk/mahavatar-babaji/.



Fig. 4 Shri Shiva Murugan Temple, Leicester (2018). Picture credit M. Haigh

urges devotees to detach themselves from the demands of the five senses (*vishays*) and offer devotion to God and his Sant (BAPS Sadhus 2010).

Despite Shri Sahajanand's teachings against caste, most Swaminarayan sects are linked to caste groups and, in fact, casteism is explicit in the fifth of the principal vows that Shri Sahajanand required of followers, which is not to accept food from a person of lower caste. However, modern leaders notably, the spiritual leader of BAPS Pramukh Swami Maharaj (2014, p. 1) have stated: "You may be born in any caste, however, when you worship Paramatma, you are great. God makes no distinction.... Bhagwan Swaminarayan respected everybody." Similarly, the Swaminarayan Gadi cites the Laws of Manu that "neither birth nor sacraments, study nor ancestry decide whether a person is a Brahmin or not. Character and conduct alone can decide" (Shree Swaminarayan Gadi Sansthan 2015, p. 1).

Criticism of the Swaminarayan Movement focuses on its patriarchal character and subordination of women, both generally considered as the corrupted features of traditional Hinduism but that are unacceptable in the current Western world. In life, Shri Sahajanand was a vigorous campaigner against female infanticide and did huge work to improve the miserable status of widows in society, in which they were much supported by the Colonial British rulers of that time. He argued that all were equal because the soul was the same in males and females, whether high or low caste. He also argued that education was a right for all people although he opposed cross-gender teaching outside family contexts and expected women to live under a mantle of male control. The Swaminarayan Movement contains communities of ascetics both male and female, but they live in strict segregation, something which is extended to all aspects of Temple life. In some cases, women have supplanted male roles, replacing the Brahmins traditionally involved in the kitchen for example and gradually they are gaining a stronger voice in temple affairs, at least in the West (Rudert 2004). Rudert (2004) comments: no matter how advanced in learning, piety, or social status a woman becomes, she cannot exercise authority over men... her relative prestige remains second... The irony lies in the fact that the teachings and social reforms of Lord Swaminarayan, once intended for the improvement of women's lives, have resulted in an ethical code that now seems to devalue what women have to offer. (p. 37).

It has also been argued that the BAPS Swaminarayan Temple in North London, in conjunction with the Vishwa Hindu Parishad (UK), has helped silence media criticisms of the excesses of aggressive Hindu nationalism in India (Mukta 2000).

Rapid social change provided the occasion and energy that propelled the Swaminarayan Movement from a position of strength among Hindu groups to even more prominence in the State of Gujarat, where it originated and on the expanded international stage where Gujarati immigrants live and have increasingly important roles. (Williams 2001, p. 1).

The two main Swaminarayan organisations in the UK are splinter groups from the main Swaminarayan centres in Vadtal and Ahmedabad in Gujarat, where perhaps a sixth of the population, more than 5 million people, support the sect (Williams 2001). The Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha, or BAPS, was formed in 1906, following Shastri Yagnapurushdas' excommunication for claiming Gunatitanand Swami as the spiritual successor to Swaminarayan and trace their origins in the UK back to the early 1950s. BAPS claim their original Islington Mandir, opened June 1970, to be the first Swaminarayan mandir of the Western world (BAPS 2015; Fig. 5). Worldwide, BAPS, which has Consultative Status with the Economic and Social Council of the United Nations, aims to produce good citizens who have



Fig. 5 BAPS (Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha) Neasden Temple, London. *Picture credit* M. Haigh

a high esteem for their Hindu heritage from its network of 800 temples and 3300 centres. Significantly, the movement's, arguably archaic, approach to women was responsible for the BAPS schism in 1966 that created the Yogi Divine Society, which has a small foothold in Harrow, London (YDSUK 2015; Williams 2001). The smaller Swaminarayan Gadi formed in the 1940s, when Muktajivan Swamibapa claiming Gopalanand Swami as the spiritual successor to Swaminarayan, created the Swaminarayan Maninagar Gadi Sansthan. The Gadi reached the UK in the 1960s, the first temple was established in London in 1964, while the latest and most grand, purpose built, temple in Kingsbury, North London, was opened amidst much public ceremony in August 2014. Williams (2001) suggests that the UK hosted 1,500 followers, from a global total of about 100,000. However, other groups, such as the ISSO (International Swaminarayan Satsang Organisation, founded 1978), which calls itself the primary sect (Barot 2002) and SKS, (Shree Kutch Satsang Swaminarayan), based at the Shri Nar-Narayan Dev Temple in Bhuj, India, have also built Swaminarayan temples in the UK including: Bolton (1973), Oldham, Leicester, Cardiff and several locations in Greater London. Barot (2002) guesstimates the total number of UK devotees at around 50,000 in a global movement of up to 20 million.

5 Discussion—Yoga and Other Hindu Disciplines that Have Migrated into Non-Religious Contexts

Meanwhile, as discussed in Haigh (2015), several Hindu traditions have a strong presence in the West and have influence that extends beyond those born into Indian Hindu families. However, the greatest influence of the tradition, the aspects that have made the greatest penetration into Global Society, are religious disciplines more than the religion itself. There exists a growing array of so-called 'feral' disciplines, techniques that have escaped the sanctity and limitations of their religious roots and spread widely in secular society. They include Yoga, Meditation, Ayurvedic medicine-especially its massage techniques and the Hindu Bhakti (also Sikh) tradition of communal call-and-answer chanting called Kirtan, which is a speciality of ISKCON (Haigh 2015). Their combined impact has encouraged Campbell (2007) to talk about the 'Yogaization of Western Society'. Their transmission has been largely powered by women, often through the women's locker room in the gymnasia and spas, whose UK numbers have increased to >800 in an industry valued at almost 23 billion Euros in 2018. This spread is at once apart from the Dharmic religious traditions, including Hinduism and sponsored by them, especially the more modern and energetic, often as a means of recruitment. In India, it is said that Hinduism is not about conversion, it is something you or your ancestors were born within. However, this is not the case for the export and Import, often Guru-centric, traditions found outside India, most of which are seriously oriented to recruitment both within and beyond those of original PIO Hindu origin.

In India, it is said that you learn your religion in the home from the teachings of your Mother and Grandmother (Kannabiran 2004). However, in the outside world, the temple functions as a cultural and community centre while its priests have a much greater role in religious education. This generates another paradox, while Global Hinduism is becoming accustomed to granting a greater role to the women of its increasingly Westernised temple congregations, it is also disempowering women by replacing their role in the religious and cultural guidance of children with a largely male priesthood.

Many have speculated whether the kinds of spirituality promoted by the new Hindu Religious Movements that thrive in the West, which emphasise inner peace, meditation, service, dutiful action and, in many cases, devotion to both Guru and God, will make for a better world? Whatever the case, one consequence is the burgeoning behemoth that is the Global Wellness industry, which the Global Wellness Summit (2014, p. 1) describes as being "larger than the worldwide pharmaceutical industry" and a "\$3.4 trillion market in 2018 (Global Wellness Summit 2018, p. 1). Among common "wellness and spa entertainment facilities" Rundshagen (2009, pp. 335-338) lists: Ayurveda, Meditation retreats, Yoga centres and many more. Yoga thrives as a substantial part of the \$446.4 billion 'Fitness and Mind/Body' sector (Global Spa and Wellness Summit 2014). Haigh (2015) discusses Yoga's spread into western society and the belated backlash against its religious connotations by Christian and Islamic authorities. Yoga is also part of the recruiting appeal for Hindu Religious Movements like the SRF and Bhakti Marga, while the Brahma Kumaris promote their version of 'Raja Yoga' as a means for engaging with future converts. Elsewhere, Siddha Yoga and Integral Yoga are widespread (Altglas 2007).

However, equally powerful is the spread of Meditation, where Hindu movements follow a lead set by the 'Mindfulness' teachings of Engaged and Western Buddhism, which have long surpassed the original lead set by the Maharishi's Transcendental Meditation movement. Today, no longer a New Age fad, "Meditation and mindfulness are the new rage in Silicon Valley. And it's not just about inner peace—it's about getting ahead." (Shachtman 2013, p. 1). Major companies that include Google, Apple, Deutsche bank, Prentice Hall, Proctor and Gamble, HBO, AOL Time Warner and Nike promote meditation to their employees to combat stress, many offering on-site classes, 'quiet spaces' and even a time allowance (30 minutes daily at Apple) for the purpose (Anon 2012).

The importance, however, of such disciplines to the spread of World Hinduism is considerable. Table 2 summarises the character, modes of recruitment and membership of the traditions, large and small, discussed here and in Haigh (2015). The list confirms that many employ a particular style of yoga or meditation or self-improvement in their appeal to new members; in fact, exactly the same techniques are used to recruit customers in other contexts.

Critics may rail against the 'cultic' aspects of the new Hindu Religious Movements and against the New Age and Business contexts of the so-called 'feral' disciplines like Yoga. However, whatever else they may do, in the minds of outsiders, they associate Hinduism with sattvic qualities—peace, serenity, enlightened spirituality and more generally with peace of mind, good health and well-being. If being thought

Table 2 Some Western Hind	du Religious Movements: modes of transmission and membership	ansmission and men	ıbership	
Movement	Core philosophies	Recruitment methods	Appeal to recruits (USP: Unique Selling Points in the language of Business)	Membership in diasporic settings
School of Economic Science (SES)	Advaita Vedanta (Gurdjieff)	Courses in Practical Philosophy and Sanskrit	Intellectual-mystical-self-development	Mainly western, mature. Western leadership
Vedanta Societies of Ramakrishna Order (Haigh 2015)	Advaita Vedanta (Vivekananda)	Meditation and lectures: Yoga, Upanishads, Hinduism, etc	Intellectual, spiritual detachment from the world	Mainly Western, Mature, Western leadership,
Transcendental Meditation of Maharishi Mahesh Yogi (Haigh 2015)	Advaita Vedanta (New Age)	Meditation, Yoga, Wellbeing Courses for Business, etc	Practical self-help and self-management	Mainly Western, Western leadership
Adidam (Haigh 2015)	New Age (Tantrika, Advaita Vedanta)	Guru charisma, Kriya Yoga	Guru Bhakti, Mystical, emotional, Self-realisation	Mainly Western, Western leadership
Auroville	Advaita Vedanta (The Mother and Sri Aurobindo)	Meditation and lifestyle	Spiritual vision of The Mother – new communal lifestyle	Mixed, leadership the same but with strong Western influence
Brahma Kumaris World Spiritual University	Post-Hindu spiritual purification and spiritually based activism	Meditation classes and Peace Movement	Self-realisation, spiritual detachment from and service to the World	Mixed, mainly female, Indian Female Leadership
Self-Realisation Fellowship (Haigh 2015)	Yoga and Bhakti	Kriya Yoga and Meditation	Self-realisation, detachment from and service to the World	Mainly Western, including Leadership
				(continued)

230

(pai
ontinu
ğ
2
le
ap

Table 2 (continued)				
Movement	Core philosophies	Recruitment methods	Appeal to recruits (USP: Unique Selling Points in the language of Business)	Membership in diasporic settings
Bhakti Marga	Bhakti yoga	Guru charisma, Om Healing, Kriya Yoga	Guru Bhakti	Mixed, mainly younger. Guru-led
ISCKON (International Society for Krishna Consciousness (Haigh 2015) and Sri Chaitanya Saraswat (SCS)	Bhaktivedanta—Gaudiya Vaisnavism	Kirtan, Religious festivals at Temples	Modernised Hinduism emphasising devotion Mixed, mainly PIO, and service to deity especially ISKCON mainly younger, leadership mixed	Mixed, mainly PIO, especially ISKCON, mainly younger, leadership mixed
Swaminarayan	Neo-Hindu, Vishistadvaita, Vaisnava Bhakti	Guru Charisma, Ishta devata, family ties, temple festivals	Modernised Hinduism-Self-realisation	Gujarati PIO

'spiritual' may feel like irritating typecasting to an Indian overseas, it is certainly preferable to the typecasting being applied to members of the Islamic community. There is much to be said for being considered a benign influence in the World and it will be to the disadvantage of all India, if the antics of India's own extremists change that presumption for the worse.

6 Conclusion—Towards Ekatvam Hinduism

In the West, there is an ongoing process of 'easternization' (Campbell 2007), which mirrors the 'westernisation' that affects India and its diasporas (Sander and Cavallin 2015). Campbell characterises this shift in the West as a move from either secular materialism or a transcendent personal deity, who creates and controls the world, to something more intimately spiritual and Eastern, dominated by a principle that contains both nature and each human within a larger spiritual Self. Within this process, Hindu traditions, often modern Hindu traditions, share the headlines but, in general, have a much smaller voice than Buddhism.

The process Nattier (1997) describes is actually Buddhism becoming a part of Main Street, USA, as also High Street, UK., especially its 'Wellness' centres and industries. Hinduism, by contrast, remains a little apart from the mainstream and its ideas retain their ability to shock, as in the case of the SES. Nevertheless, Nattier's model for the spread of Buddhism seems to apply equally well for the spread of Hinduism. It is as easy to recognise the three key processes in the UK as it was in the USA's California (Haigh 2015). In Buddhism, which is relatively easily accessible, both import and export traditions that recruit converts play a substantial role. These traditions tap into the Western 'wellness' industry and its use of the secular versions of yoga and meditation for recruitment. Hinduism has special appeal that emerges from its 'Guru'-culture (Llewellyn 2004) and Bhakti emotionalism but, essentially, it rides on the coattails of the larger Buddhist movement.

However, converts are a very tiny part of Hinduism, perhaps 1—2% of UK Hindus, while most are Gujarati (Bauman 1998b). Consequently, those traditions that rely on converts, especially import traditions like the SES, are very small numerically. In the UK's BKWSU, converts play very obtrusive roles, even while the leadership remains Indian and female. However, in the Bhakti-oriented export traditions, which recruit using an appeal to emotion and youthful enthusiasm, Western converts may play major roles, especially while the tradition is small, as in the present Bhakti Marga, early ISKCON and current SCS. Of course, major growth depends upon tapping into the ethnic diaspora, which is why Baggage traditions, which have strong roots in the diaspora, like the modern Swaminarayan Movement, are numerically dominant.

The UK situation is complicated because, with some exceptions, the 'Baggage' traditions that have made the greatest impact are atypical (Altglas 2007). They are outward looking, some seek new members; they reject discrimination based on caste and race, at least officially, although sadly, not gender. They talk of 'Universalism',

in the sense of Swami Vivekananda (1893) and they preach tolerance, social egalitarianism and good neighbourliness. They have adjusted to their Western contexts and, as time progresses, they are being changed by their PIO congregation's interactions with Western society (Sander and Cavallin 2015; Baumann 2009).

Many questions arise about whether or not these movements represent the development of a new globalised Hinduism? If such a thing is developing then it is something that will, likely, have to be in tune with modern sensibilities about gender, inclusive of racial diversity, that meets the global spiritual needs of urban people, that has Sanskrit credentials (i.e.: that has deep roots in the ancient Sanskrit texts of the Bhagavadgita, Vedas, Puranas, etc) and that is congregationally oriented to the temple rather than home-based (Baumann 2009). However, if this is the case, the question arises: is this new World Hinduism even remotely akin to anything India might recognise as Hinduism, at least ahead of these same movements building their own "Hindu utopias" within India (Basu 2007, p. 193)?

Certainly, the process of building the dream is very active and obtrusive and includes the Swaminarayan's Akshardham in Greater New Delhi (Noida), Auroville in Puducherry and ISKCON's activities in Bengaluru, Mayapur, WB and Vrindavan, UP. Again, one wonders how this new development will interact with the narrowly chauvinist, aggressively nationalist and exclusive agendas of the Hindutya movements, especially those with a global agenda like the Vishwa Hindu Parishad (VHP) (Stephens 2004)? One thinks, not well in the longer term (Basu 2007). This may be despite the VHP's attempts to shed its Indian cloak of Hindu nationalism and cultivate the appearance of a moderate, ethnic, civil rights lobby in its dealings with local governments in the UK and with the United Nations. It is also despite its embrace of the Swami Sivananda's Divine Life Mission and the Chinmaya Mission, whose mass followings in India link to multi-ethnic disciple groups in the outside world (Basu 2007). There remains a major philosophical difference between the universalism that has been part of World Hinduism since that first 1893 speech of Swami Vivekananda and the narrow sectarianism associated with Hindu nationalism in India (Vivekananda 1893).

Sri Chinmoy's silent meditation opened the Parliament of World Religions in Chicago in 1993, one hundred years after Swami Vivekananda (1893). Sri Chinmoy, who fronts another international Hindu movement for whom religion is only the "love of God", ranks among those prominent Hindu leaders who won respect through working globally for interfaith harmony. He presents the positive sattvic face of World Hinduism (Fig. 6, Rebidoux 2015). By contrast, in the UK, in 2011, the author witnessed an attempt of the Hindu right to establish their alternative message of 'Hindu Hurt' at the annual conference of the National Hindu Students Forum (NHSF), a VHP affiliate (Mukta 2000). Participants were shepherded into a large hall to be shown a film, similar to those used by Jihadis, which showed the injustices meted out to Hindus in different parts of the world and which was reinforced by a talk from a sour-faced swami in saffron robes. Happily, the speech fell on deaf ears; as students will—the conscripted audience talked to each-other, to their mobile phones and left the room as quickly as politely possible. The Hindutva-s had misjudged their audience. In general, Western Hindu diaspora communities feel no



Fig. 6 Namaste Prague: Sri Chinmoy's 'harmony' statue (2014). Picture credit M. Haigh

'hurt'; they are happy, successful and optimistic about the future (Anders et al. 2018). In fact, this incident was the lone sour note in a NHSF meeting, which taking 'Vasudhaiva Kutumbakam: the World as One Family' as its motto, was a celebration of the successes of Hindu students, of the pride, felt for them by their families and their community and of the confidence of their place in the world and its future (Fig. 7).



Haigh

Nevertheless, the incident highlighted a tension between international Hinduism, with its inclusive, outward-looking, self-confident warmth, if you will—its 'moral middle-classness' (Srivastava 2009) and the cold, narrow, sectarian resentment that fuels some Hindutva discourse. Like my Bengaluru heckler, like Mukta (2000), many try to link these two opposite discourses and the activities of international Hinduism to pressures on India's non-Hindu minorities. Certainly, there may be a contest going on for the soul of Hinduism and perhaps also for the soul of India—but, thus far, at least amongst the middle-class, urbanised India of the global economy which is, just possibly, the India of the future, sattva remains the dominant mode.

Of course, most new Hindu religious movement adherents eschew mundane politics. Even in the relatively politically active BKWSU, over 90% of Indian disciples undergoing spiritual training belong to no political party (Patil 2013). It is ironic, therefore, that the utopian Hindu dreams that these World Hinduism movements construct for India are supported by the Hindutva chauvinists and seen as political. Of course, dichotomy and paradox have been part of the Western Hindu framework since Swami Vivekananda, who preached unity, harmony and detached spirituality to the West and hard work, practical self-reliance and self-respect to those back in India, for example saying:

Throw aside your scriptures in the Ganga and teach the people first the means of procuring their food and clothing and then you will find time to read to them the scriptures. (Vivekananda 1899, p. 183).

However, in this case, perhaps it is the Hindutva who misinterpret the mood and the new temples. These are not only about reconstructing India's golden past; their purpose is to establish (their constructors as) India's future.

In choosing to frame its bhakti tradition in terms that are accessible to followers living outside of India as well as interested others, BAPS appears to be participating in the endorsement of "religion" as a given and universal category. It has done so not with the intention of promoting an exclusivist vision of either India or Hinduism, but for the purposes of situating its tradition within an already existing category, "religion," and its associated discursive pathways. (Kim 2009, p. 380).

Of course, outside India, the chief concern of Hindu communities of all kinds is to have the freedom to practise their religion in peace and, if possible, with the blessing of their neighbours. When the beautiful new Swaminarayan Gadi Temple in Kingsbury, North London, opened in August 2014 (Fig. 2), it was touching to find words of welcome posted on the noticeboard of the small Christian Church across the road. Such things are important to those who feel they are in a minority and prove the benefits of building affection and respect in the larger communities that they share.

World Hinduism is about *Ekatvam*, meaning oneness. It more promotes the interreligious tolerance taught by Shirdi Sai Baba rather than any Hindutva partisan indignation. In the West, of course, this *Ekatvam* may be a sign of positive and enlightened thinking in these diasporic communities and it may also be enlightened self-interest. However, it shows off the Hindu tradition in ways that would have made Swami Vivekananda proud and, hopefully, that signal a bright future for Hinduism among the family of World Religions. Professor Singh (2010, pp. 19–21) agrees: "Ethical value is the moral force in the sustainable coexistence, maintenance and continuance of human beings..." and he argues for "a general human ethic of coexistence and equity" rooted in the concept of 'Vasudhaiva Kutumbakam', the Global family. Indeed, may our whole world become more compassionate, insightful and peaceful ... I conclude with a famous shanti mantra from the Sri Bṛhadāraṇyaka Upaniṣad, which is beloved also by Professor Rana P. B. Singh.

ॐ असतो मा सद्गमय। तमसो माज्यो तिर्गमय। मृत्योर्माऽमृतं गमय॥ ॐ शान्तिः शान्तिः शान्तिः ॥

References

- Altglas V (2007) The global diffusion and Westernization of Neo-Hindu Movements: Siddha Yoga and Sivananda centres. Relig South Asia 1(2):217–237
- Anders J, Burgess S, Portes J (2018) The long-term outcomes of refugees: tracking the progress of the East African Asians. Bonn, Germany: IZA Institute of Labor Economics, Discussion Paper 11609. http://ftp.iza.org/dp11609.pdf. Accessed 16 July 2019
- Andrew R (2007) (Comments on) Moving into phase three: an analysis of ISKCON membership in the UK. In: Dwyer G, Cole RJ (eds) The Hare Krishna movement: forty years of chant and change (Chap. 3). IB Tauris, London, pp 54–67
- Anon (2017) 10 Big companies that promote employee meditation. Houston, TX: Online MBA. https://www.sonorrari.com/single-post/2017/04/06/10-Big-Companies-That-Pro mote-Employee-Meditation. Accessed 23 Sept 2019
- Art of Living UK (2015) Making life a celebration. http://www.artofliving.org/uk-en. Accessed 27 Feb 2015
- Babaji SG (1994) Kriya Sutras of Babaji. Sanskrit Classics, San Diego, CA
- BAPS (2015) History of BAPS in the UK & Europe. Shri Swaminarayan Mandir, London. http:// londonmandir.baps.org/about/history-of-baps-in-the-uk-europe/. Accessed 16 Feb 2015
- BAPS Sadhus (2010) The Vachanamrut: spiritual discourses of Bhagwan Swaminarayan. Swaminarayan Aksharpith, Ahmedabad
- Barot R (2002) Religion, migration and wealth creation in the Swaminarayan movement. In: Bryceson D, Vuorela U (eds) The transnational family: new European frontiers and global networks. Berg, Oxford, pp 197–216
- Basu T (2007) Globalizing Hinduism, Hinduizing India: the paradoxical purposes of the Vishwa Hindu Parishad. In: Gupta S, Omoniyi T (eds) The cultures of economic migration: international perspectives. Ashgate, Aldershot, pp 185–194
- Baumann M (2009) Templeisation: continuity and change of Hindu traditions in diaspora. J Relig Europe 2(2):149–179
- Baumann M (1998a) Hindus and Hindu traditions in Europe: a bibliography on the Hindu-European diaspora. University of Heidelberg. Heidelberg. http://archiv.ub.uni-heidelberg.de/savifadok/126/ 1/bibl_hindu_europe.pdf. Accessed 3 Mar 2015
- Baumann M (1998) The Hindu presence in Europe and implications of interfaith dialogue. J Hindu-Christian Stud 11(1):8–15

- Bhakti Marga Kenya (2015) Awakening of a new Era: Sri Swami Vishwananda. https://www.fac ebook.com/video.php?v=1570944599790830. Accessed 1 Mar 2015
- Bhakti Marga Mauritius (2013) Bhakti Marga Mauritius; the journey one has to make is from the mind to the heart. Bhakti Marga, Rose Hill, Mauritius. https://vishwananda4mauritius.wordpr ess.com/. Accessed 26 Feb 2015
- Bhaktimarga.org (2015) Bhakti Marga: love, patience, unity. Shree Peetha Nilaya, Heidenrod Springen, Germany. http://www.bhaktimarga.org/ Accessed 26 Feb 2015
- Brahma Kumaris, UK (2015) BKs in the UK. London, Brahma Kumaris World Spiritual University Global Cooperation House Centre. http://www.brahmakumaris.org/uk. Accessed 24 Feb 2015
- Brahmakumaris.info (2015) The Brahma Kumaris in a Nutshell. The truth about the BKWSU: Independent thought about the Brahma Kumaris World Spiritual University. http://www.brahma kumaris.info/.Accessed 25 Feb 2015
- Bhavana Vishnu, Bhakti Swami (2004) The Guardian of Devotion: disappearance and rejection of the spiritual master in ISKCON after 1977. In: Bryant E, Ekstrand M (eds) The Hare Krishna movement: The post-charismatic fate of a religious transplant. Columbia University Press, New York, pp 170–193
- Campbell C (2007) The 'Easternization' of the West: a thematic account of cultural change in the modern era. Paradigm Publishers, Boulder CO
- Coward HG, Raja KK (1990) The philosophy of the Grammarians. Princeton University Press, (Encyclopedia of Indian Philosophies, vol 5) Princeton, NJ
- DiCara V (2014) If not ISKCON then what? The Enquirer-Vraja Lishor's Blog, 2nd October 2014. https://vicd108.wordpress.com/2014/10/02/if-not-iskcon-then-what/. Accessed 15 July 2019
- DelhiTourism (2015) Akshardham Temple. www.delhitourism.gov.in/delhitourism/tourist.../akshar dham_temple.jsp. Accessed 24 Feb 2015
- Douglas P (2013) Sanskrit and the Advaitic view of Truth. Motilal Banarsidass, Delhi
- Eisenlohr P (2016) Language and identity in an Indian diaspora: "multiculturalism" and ethnolinguistic communities in Mauritius. Internationales Asienforum 33(1–2):101–114
- Eisenlohr P (2013) Mediality and materiality in religious performance: Religion as heritage in Mauritius. Mater Relig: J Objects Art Belief 9(3):328–348
- Global Retreat Centre (2015) About Brahma Kumaris World Spiritual University (UK), Nuneham Courtenay, Oxford, UK. http://www.globalretreatcentre.org/about/brahma-kumaris-ret reat-centre. Accessed 27 Feb 2015
- Global Spa and Wellness Summit (2014) Global Spa and wellness industry briefing papers 2014. Global Wellness Summit Headquarters, New York. http://www.globalwellnesssummit.com/ima ges/stories/gsws2014/pdf/BriefingPapers/2014_GSWS_Briefing_Papers_Final.pdf. Accessed 20 Feb 2015
- Global Wellness Summit (2014) Industry statistics and facts. Global wellness summit headquarters New York. http://www.globalwellnesssummit.com/industry-resource/industry-statis tics-and-facts. Accessed 20 Feb 2015
- Global Wellness Summit (2018) Global wellness summit 2018: global wellness trends report. Global Wellness Summit Headquarters, New York, p 1. https://www.globalwellnesssummit.com/wp-content/uploads/2018/03/2018GlobalWellnessTrends_GlobalWellnessSummit.pdf. Accessed 25 July 2019
- Goldberg P (2010) American Veda: from Emerson and the Beatles to Yoga and Meditation: how Indian spirituality changed the West. Harmony Books (Random House), New York
- Griffith RTH, Shastri JL (eds) (1973) The Hymns of the Rig-Veda. Motilal Banarsidass, Delhi
- Haigh M (2015) How the West was 'One': Hinduism and the Aquarian West, Chapter 99. In: Brunn SD (ed) The changing world religion map. Springer, New York, pp 1891–1915
- Hodgkinson B (2010) In search of truth: the story of the school of economic science. Shepheard-Walwyn, London
- Haller D (2003) Place and ethnicity in two merchant diasporas: a comparison of Sindhis and Jews in Gibraltar. Global Netw 3(1):75–96
- Hounam P, Hogg A (1984) Secret cult. Lion Publishing, Tring, UK

- Howell JD (1998) Gender role experimentation in new religious movements: clarification of the Brahma Kumari case. J Sci Study Relig 37(3):453–461
- Janki D (1998) Wings of Soul: emerging your spiritual identity: the world and wisdom of Dada Janki. Brahma Kumaris Information Services, London
- Janki D (1996) Companion of god: the wisdom and words of Dada Janki. Brahma Kumaris Information Services, London
- Kannabiran K (2004) Voices of dissent: gender and changing social values in Hinduism. In: Rinehart R (ed) Contemporary Hinduism: ritual, culture and practice, Santa Barbara, CA, ABC-CLIO, pp 273–307. http://ir.nmu.org.ua/bitstream/handle/123456789/128224/229e989fc096ee7fccb83e7d 88fd8aa1.pdf?sequence=1. Accessed 5 Mar 2015
- Kataria D (2013) Swaminarayan sect and transition in Gujarati Society during the 19th Century. Ind J Appl Res (IJAR) 3(5):356–358. https://www.worldwidejournals.com/indian-journal-of-app lied-research-(IJAR)/articles.php?val=MTQ4Mw==&b1=373&k=94. Accessed 25 July 2019
- Kemp H (2007) How the dharma landed: interpreting the arrival of Buddhism in New Zealand. J Glob Buddhism 8:107–131
- Kim H (2009) Public engagement and personal desires: BAPS Swaminarayan Temples and their contribution to the discourses on religion. Int J Hindu Studies 13(3):357–390
- Kulkarni D (2014) Vishwa Hindu Parishad leaders want whole world converted to Hinduism. Mumbai: Diligent Media Corporation, Monday, 15 December 2014 - 7:30 am IST. http://www.dnaindia.com/india/report-vhp-leaders-want-whole-world-converted-to-hin duism-2043938. Accessed 28 Feb 2015. See also: Anon (2015) VHP presses for anticonversion law: 'At one point, the entire world was Hindu'. Indian Express, Thursday, 26 Feb, 2015; http://indianexpress.com/article/india/india-others/vhp-presses-for-anti-conversionlaw-at-one-point-the-entire-world-was-hindu/. Accessed 28 Feb 2015
- Llewellyn JE (2004) Gurus and groups. In: Rinehart R (ed) Contemporary Hinduism: ritual, culture, and practice. ABC-CLIO, Santa Barbara, CA, pp 213–242
- MacLaren Foundation (2014) Mr MacLaren's Conversations with Shri Shantananda. Maclaren Foundation, London. http://maclarenfoundation.net/articles/mr-maclarens-conversations-withshri-shantananda/. Accessed 20 Feb 2015
- Makewell R (ed) (2013) The science of economics: the economic teaching of Leon MacLaren. Shepheard-Walwyn, London
- Mason P (2005) The Maharishi: the biography of the man who gave transcendental meditation to the world (2e). Evolution Publishing, Lyndhurst
- Mason P (2015) Shankaracharya Swami Shantanand Saraswati: A brief biography & bibliography. http://www.paulmason.info/gurudev/Shantanand.htm. Accessed 19 Feb 2015
- Mayer J-F, Kranenborg R (2004) La Naissance des Nouvelles Religions, Georg Ed, Genève
- Mukta P (2000) The public face of Hindu nationalism. Ethn Racial Stud 23(3):442-466
- Musselwhite R (2009) Possessing knowledge: organizational boundaries among the Brahma Kumaris. University of North Carolina, Department of Religious Studies, PhD Thesis, Chapel Hill, NC. http://dc.lib.unc.edu/cdm/ref/collection/etd/id/2939. Accessed 25 Feb 2015
- Nattier J (1997) Buddhism comes to main street. Wilson Q 1997(2):72-78
- Newcombe S (2012) 13: global hybrids? 'Eastern traditions' of health and wellness in the West. In: Nair-Venugopal S (ed) The Gaze of the West and framings of the East. Palgrave Macmillan, Basingstoke, pp 201–217
- Ouspensky PD (1957) The fourth way: a record of talks and answers based on the teachings of G.I. Gurdjieff. Routledge & Kegan Paul (Arkana Edition), London (1986)
- Park C (2004) Religion and geography (Chap 25). In: Hinnells J (ed) Routledge companion to the study of religion. Routledge, Abingdon, Oxon, pp 439–456
- Partridge CH (2004) The school of economic science. In: Partridge CH (ed) New religions: a guide: new religious movements, sects and alternative spiritualities. Oxford University Press, Oxford, pp 332–333

- Patil BG (2013) The role of Ishwariya Vishwa Vidyalaya in socio-political reconstruction in Karnataka: a study. Karnatak University, Dharwad. PhD thesis. http://shodhganga.inflibnet.ac. in//handle/10603/8758. Accessed 24 Feb 2015
- Peck J (2015) Hindus on a 'Rock': Aa socio-geographical analysis of the Sindhi community of Gibraltar. Geoverse 1, art. 10. https://www.brookes.ac.uk/geoverse/original-papers/. Accessed 15 July 2019
- Pramukh Swami Maharaj (2014) Statement against Caste-based Discrimination: his divine holiness Pramukh Swami Maharaj on behalf of the BAPS Swaminaryan Sanstha (BAPS). Hindu American Foundation, Washington, DC. http://www.hafsite.org/media/pr/caste-statement-pramukhswami-maharaj. Accessed 3 Mar 2015
- Prime R (2009) When the sun shines: the dawn of Hare Krishna in Britain. Bhaktivedanta Book Trust, Watford, UK
- Raghavan Pillai K (1971) Studies in the Vakyapadiya I: The Vakyapadiya: Critical Text of Cantos I and II [with English Translation etc]. Motilal Banarsidass, Delhi.
- Rebidoux M (2015) Cultivating the life of divinity: the consecrated lifestyle of the Sri Chinmoy Centres of Canada. In: Zuidema J (ed) Understanding the consecrated Life in Canada: critical essays on contemporary trends. Wilfrid Laurier University Press, Waterloo, p 407
- Reddy M (2015) Transnational locality: diasporas and indentured South Asians. Diaspora Stud $8(1){:}1{-}17$
- Rigopoulos A (1993) The life and teachings of Sai Baba of Shirdi. SUNY Press, Albany, NY
- Rudert A (2004) Inherent Faith and Negotiated Power: Swaminarayan women in the United States. Cornell University, MA Thesis, Ithaca, NY. http://ecommons.library.cornell.edu/handle/ 1813/106. Accessed 3 Mar 2015
- Rundshagen V (2009) Health entertainment. In: Moss S (ed) The entertainment industry: an introduction. CABI, Wallingford, Oxon, pp 329–345
- Sander Å, Cavallin C (2015) Hinduism meets the global order: the "Easternization" of the West, Chapter 92. In: Brunn SD (ed) The changing world religion map. Springer, New York, pp 1743– 1763
- Seewoochurn CS (1995) Hindu festivals in Mauritius. Editions Capucines, Quatre Bornes, Mauritius
- SES (2015) Advaita. School of Economic Science, London. http://www.schooleconomicscience. org/advaita/. Accessed 19 Feb 2015
- Shachtman N (2013) In Silicon Valley, meditation is no fad. It could make your career. Wired (Business) (Conde Naste Digital) 06.18.13; 6:30 am. http://www.wired.com/2013/06/meditationmindfulness-silicon-valley/all/. Accessed 24 Feb 2015
- Shantanand Saraswati (1987) Good Company: an anthology of sayings stories and answers to questions. London: Society for the Study of Normal Psychology. http://selfstillness.org/1%20P age%20-%20Love%20of%20Knowledge/Books/Good%20Company%20by%20Shantanand% 20Saraswati/Good%20Company%20by%20Shantanand%20Saraswati.pdf. Accessed 20 Feb 2015
- Shree Swaminarayan Gadi Sansthan (2015) The caste system. Ahmedabad, Shree Swaminarayan Gadi. http://www.swaminarayangadi.com/help/faq/general-cast-systems.php. Accessed 26 Feb 2015
- Singh RPB (2013) Pilgrimage-tourism: perspective and vision. In: Singh RPB (ed) Hindu Tradition of Pilgrimage: sacred space and system. Dev Publishers, New Delhi, pp 305–332
- Singh RPB (2011) Pilgrimage and religious tourism in India: countering contestation and seduction. In: Singh RPB (ed) Holy places and Pilgrimages: essays on India. Shubhi Publications (Planet Earth & Cultural Understanding Series, 8) New Delhi, pp 307–334
- Singh RPB (2010) Indo-Kyosei global ordering: Gandhi's vision, harmonious coexistence and ecospirituality. Meitoku Publishing for Toyo University, Research Center for Kyosei Philosophy (Supplement to the Annual Report of Kyosei Studies), Tokyo
- Sripad Hrishikesa (1990) The spiritual succession of Sri Chaitanya Saraswat Math (written as: 'Sripad Dayadhara Gauranga Dasa Brahmacari Prabhakara') Chapter 3. In: Mahananda Dasa (ed) The Divine Servitor. Sri Chaitanya Math Nabadwip Dham,Kolerganj, West Bengal

- Srivastava S (2009) Urban spaces, Disney-divinity and moral middle classes in Delhi. Econ Pol Wkly 44(26/27):338–345
- Stephens RJ (2004) Hinduism in Independent India: fundamentalism and secularism In: Rinehart R (ed) Contemporary Hinduism: ritual, culture, and practice. ABC-CLIO, Santa Barbara, CA, pp 309–340
- Strano A (1999) The Alpha Point: a glimpse of God (2e). Brahma Kumaris, London
- Vishwananda Swami (2009) Relationship between Mahavatar Babaji and Sri Swami Vishwananda. Bhakti Marga. http://vishwanandateachings.blogspot.co.uk/. Accessed 1 Mar 2015
- Vivekananda Swami (1893) Addresses at the Parliament of Religions. In: The complete works of Swami Vivekananda 1. Advaita Ashrama, Kolkata (1989), pp 3–24
- Vivekananda Swami (1899) Conversations and dialogues 12 in: The Complete Works of Swami Vivekananda 7. Advaita Ashrama, Kolkata (1989), p. 183
- Walliss J (2002) The Brahma Kumaris as a 'Reflexive Tradition' Responding to Late Modernity. Ashgate: Farnham, UK and Motilal Banarsidass Delhi (2007)
- Whaling F (2012) Understanding the Brahma Kumaris. Dunedin Academic Press, Edinburgh
- Williams RB (2001) An introduction to Swaminarayan Hinduism. Cambridge University Press, Cambridge
- Williams RB (1984) A new face of Hinduism: the Swaminarayan religion. Cambridge University Press, Cambridge
- YDSUK (2015) Yogi divine society—UK: an organisation pursuing the Akshar Purshottam Upasana. 'Haridham UK' Hindu Swaminarayan Temple and Cultural Centre, Harrow, London. http://ydsuk.org/centers.html?type=l. Accessed 5 Mar 2015
- Zavos J (2013) Chasing Euro-Hindus: an exploration of the public articulation of European Hindu identity. South Asian Diaspora 5(2):159–177



Martin J. Haigh is Emeritus Professor of Geography, Department of Social Sciences, Oxford Brookes University, UK and a former editor of the *Journal of Geography in Higher Educa-tion.* He is a UK National Teaching Fellow and in 2010 was awarded the Royal Geographical Society's 'Taylor and Francis Award for Excellence in Geography Teaching (Higher Educa-tion)'. His research interests include Environmental Education for a Sustainable Future and applied Environmental Reconstruc-tion, Formerly, he was a technical advisor to the Bhumi Project, based at the Oxford Centre for Hindu Studies, and to the Lotus Trust's 'Karma to Climate Change' project in the UK, which provided community education for sustainable living at Hindu Festivals,

Geographical Patterns of Indigenous Religious Belief Systems in Northeast India: A Case Study



Ravi S. Singh

Abstract Northeast India is a mosaic of ethnicities. Though internally quite distinguishable, they have been projected as quite aggregated by the scholars of the colonial era. Unfortunately, the mainstream scholarship still carries on with that outdated legacy at different levels and degrees. Naturally, the popular perception is confined to that image. The movement started in the late 1960s, however, has given an opportunity to celebrate and assert beyond 'foundationalism', and hence, looking at the 'reality' in multiple open ways-free from theoretical lenses. It is often said about tribal communities that the space they occupy and culture they live with are intrinsically connected with nature. Nature is omnipresent in their 'sacred' world as much as 'profane' lifeways, to use Mircea Eliade terminology. Though very high level and complex philosophical theorization in their traditional indigenous faith systems is not found, nature is highly eulogised and lived with. Main focus of the present attempt is to understand the geography of indigenous religious belief systems in the Northeast India borderland and emerging issues of their revival together with the consequences of such movements. The existing literature amply suggests that many of the tribal communities have been treated as a non-descript entity compared to their counterparts inhabiting the same cultural region. Naturally, in the wake of varied forms of cultural invasions including conversion (to Christianity, for example), the agenda of carving out a niche for themselves assumes significance. And, the revival of indigenous faith for rebuilding and expressing one's own identity becomes an important issue. Apparently, it comes to the fore that this process, though not limited yet focused on cultural traditions, religious practices and festive celebrations, is also an attempt to an expression of 'I want to break free' syndrome. The present exercise would also try to disentangle sources and the means, modes and motifs used in the entire process. The study employs descriptive analysis using field experience and published secondary sources.

R. S. Singh (Deceased) (🖂)

This paper is a revised version of an oral presentation made by the author at the International Workshop on "Geopolitics in Changing Southeast Asia: Boundaries and Borderlands". 20–23 July 2014, School of Tourism and Geography, Yunnan Normal University, Kunming, China.

Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh 221 005, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_10

Keywords Culture · Indigenous faith · Identity · Nature · Proselytization · Religion · Space

1 Orientation

Though marginal in terms of geographical location with attendant challenges (cf. Singh 2015, pp 532–533), the Northeast India, a mosaic of ethnicities, truly exemplifies the diverse and rich culture of India and that is why the region possesses a rich cultural heritage of the indigenous people inhabiting it. Despite their distinguishable characteristics, they have been projected in an aggregate manner by the colonial scholars, a legacy which is unfortunately carried forward by the mainstream scholarship in one way or the other. Naturally, to a great extent, the popular perception appears to be confined to that image. Since the late 1960s, the opportunity to celebrate and assert 'dissimilarities' and look at the '*reality*' in multiple open ways—free from theoretical lenses—have been widely made use of in the post-colonial societies. The same is employed here too in order to reveal the reality from within.

Tribal communities in general occupy a space and follow a culture intrinsically connected with nature. Nature is omnipresent in their 'sacred' world as much as 'profane' lifeways, to use Eliade's (1963) terminology. Though a very high level and complex philosophical theorization in their traditional indigenous faith systems is absent, nature is highly regarded, and universal human values are given greater importance with relative absence of intra-community discriminations. In the wake of varied forms of cultural invasions including conversion (mainly to Christianity), the agenda of carving out a niche for themselves assumes significance. And, the revival of indigenous faith for rebuilding and expressing one's own identity becomes an important issue. Apparently, this process though not limited yet focused on cultural traditions including language, food and dressing habits, religious practices and festive celebrations is also an attempt to create awareness for asserting their own identity. Among these, religion is centrally important in identity formation (Oppong 2013, Fig. 1) well addressed by the scholars of sociology of religion, Durkheim (1966) has mainly

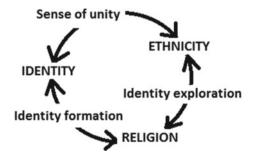


Fig. 1 Ethnicity-religion-identity. Source Designed by the author

analysed the role of rituals in identity formation, both personal and social. Many other scholars too have highlighted the function of religion in providing 'meaning' and 'belonging' (see, e.g., Greil and Davidson 2007). Thus, it may be inferred that religion expresses a sense of unity, and it plays a distinct role in identity formation among (ethnic) communities. King (2003) has presented a framework in which religion has been found presenting a 'distinct setting' in the process of identity exploration and commitment. However, Cadge and Davidman (2006) have tried to develop an approach to religious identity through their study of first-generation Thai Buddhists and third-generation Jews immigrants in the USA.

Main focus of the present attempt is to understand the geography of indigenous religious belief systems (IRBS) in the Northeast India borderland and analyse emerging issues of their revival together with the consequences. The present exercise would also try to disentangle sources and the means, modes and motifs used in the entire process. The study employs descriptive analysis using field experience and published secondary sources, as the author has spent over four years (1996–2001) in a region where the revivalist movement was taking form(s) during that time.

The Sect. 2 starts with a general introduction of Northeast India, with special reference to Arunachal Pradesh which forms the northeast borderland of India. Section 3 attempts an understanding of how different ethnic tribal communities are geographically distributed and what is the nature of their IRBS(s). In this section, effort to explain the external influences on indigenous faiths is also made wherever applicable. Christianity and conversion to it are sensitive and controversial issues with respect to IRBS in tribal regions including the present one. Hence, an analysis of it vis-àvis IRBS becomes imperative which has been addressed in Sect. 4. In Sect. 5, the evolution of revivalist movements across the region and their fallouts and people's response to them have been analysed. Section 6 presents a discussion on the focal issue addressed in the preceding sections, their relevance in the context of ongoing contemporary cultural discourses and the major findings with a global message. At the end, in Sect. 7, the conclusions have been drawn based on the preceding analysis and discussions.

2 Northeast Borderland of India: An Introduction

Northeast India, though referred as a 'terra incognita' till the sixth century CE (Dikshit and Dikshit 2014, p. 20; also see, Bose 1989), because of relative physical isolation and being far away from the Ganga plain of the mainland India—the cradle of early ruling dynasties, it still remains the same compared to the mainland India. However, it does find mention in the epics like Ramayana and Mahabharata and also different pan-Indian mythological legends. Thus, its cultural linkage with rest of India gets attested. Established by the Varman dynasty, Pragjyotishpur or Kamarupa is the most ancient kingdom of the region; other dynasties which succeeded them and also impacted the region considerably were the Salastambhas, the Palas, the Vaidyadevas and the Ahoms. Of them, the Ahoms were most remarkable who ruled the Brahmaputra Valley for almost six centuries (Dikshit and Dikshit 2014). They were later defeated by the British who not only ruled Assam but also expanded the Assamese territory. After Independence, through a series of administrative reorganisation of Assam, four modern states of India came into being, viz. Assam, Nagaland, Mizoram and Meghalaya. Tripura and Manipur, the two princely states, got merged in the Indian Union as independent states; and, later on in 1986, Arunachal Pradesh, one of the Union Territories referred by different names before (Singh 2005), got the full statehood. These seven states are together called as 'seven sisters' of northeast are spread over an area of 255,000 km² and have a population of around 45 million.

The region is inhabited by several racial stocks, among whom the Mongoloids are dominant. It is home to a large number of ethnic groups migrated to this region at different points of time. Explaining the patterns of ethnic population in the region, Taher (1997) has recognised eleven major migration streams; smaller/micro streams are reported even now. In fact, a closer appreciation of migration streams to this region may reveal immigration from almost all directions. Hence, it becomes a true 'cultural mosaic' of different ethnicities and also a 'melting pot' of cultural identities to considerable extent (Singh 1999). In contemporary times, beside the ethnic diversities in the region, the tribal and non-tribal duality is also prominent. The non-tribal population constitutes over two-third of the region's total population; the tribal population is found generally confined in three states, namely Assam, Manipur and Tripura. On the contrary, the distribution of tribal population is widespread with heavy concentration in the hilly states sandwiched between the mountains and hills in the north and south plains of Assam and Bangladesh.

The northeast borderland of India by and large corresponds with the present state of Arunachal Pradesh $(26^{\circ} 28' \text{ N to } 29^{\circ} 31' \text{ N and } 91^{\circ} 31' \text{ E to } 97^{\circ} 30' \text{ E})$ which has considerably ancient history (cf. Elwin 1957). It shares international boundary with China in the north and northeast, Myanmar in the east and Bhutan in the west. Around 80% of its total geographical area (of 83,743 Km²) is mountains, and around 62% forested. The total population is 1,383,727 persons of which around two-thirds are tribal living largely in villages.

3 Indigenous People, Religious Belief Systems and Their Geographical Patterning

Based on the archaeological findings (cf. Thakur 2004), the human habitation in this region is believed to be prehistoric (also see, Elwin 1957). The earliest accounts pertaining to recorded history are found in the Buranjis, the official chronicles of the Ahom kings of Assam. However, for several valid reasons, one can neither rely on nor base interpretation(s) solely upon these sources. Similarly, due to their vested interest, it is difficult to trust the understanding and interpretations made by the British colonial scholars. Identity of the local people is intrinsically interwoven with respective oral traditions. Therefore, our interpretation needs to be based on them. Since

Cultural zone	Major ethnic groups	Other ethnic groups
Mon	Monpas, Sherdukpens	Akas, Mijis, Khowas
Nishi	Nishis/Nishings, Bangnis	Apatanis, Sulungs, Nas, Tagins, Mikirs, Hill Miris, Chakmas ^a
Adi	Adis	Khambas, Membas, Mishings/Miris
Mishmi	Mishmis	Meyors/Zakhrings, Khamptis, Khamiyangs, Deoris, Chakmas ^a , Tibetans ^a
Nocte-Tangsa	Noctes, Tangsas	Wanchoos, Singphos, Sonowal Cacharis, Lisus, Nepalis

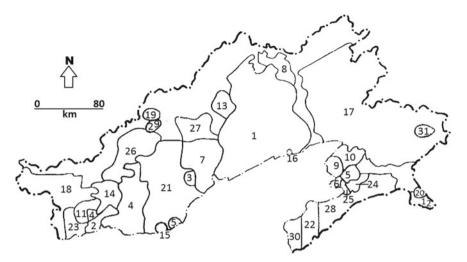
Table 1 Cultural zones in the northeast borderland

Note aSome settlements of these communities are found in the Nocte-Tangsa zone too

the late twentieth century, we find that voices in contestation of established inaccurate identities are being raised and the process of reconstructing cultural identity including the revival of indigenous religious faith has begun (Rao 2000).

The Anthropological Survey of India (AnSI) has identified 31 ethnic communities in this region. The existing distribution of these communities could be better understood with reference to 'cultural zones'. Elwin (1999: xiv–xv) indicates three cultural zones—Buddhist, central and southeast. However, there is a lack of exclusiveness, especially in the case of the first zone as it is inspired by the Buddhist ideas and thus includes people inhabiting the region. Based on the major/dominant tribal communities, one may propose an alternative cultural zonation as presented in Table 1. Among the five cultural zones given in Table 1, the last Nocte-Tangsa zone is quite mixed as it presents an assemblage of a great variety of ethnicities. And, on the contrary, the Adi zone is by and large exclusive (see, Fig. 2).

The pattern of religious belief system in NE borderland arouses curiosity (cf. Sinha 1977) as much as its natural landscape, the pattern of peopling and ethnic distribution, as briefly discussed above. Besides the indigenous faiths, we also find flourishing of Buddhism, Vaishnavism (a sect of Hinduism introduced especially in the southeast parts (Rao 2006a, 2008) inhabited by the Noctes) and Christianitydue to the concerted efforts of religious conversions by the missionaries. Elwin (1999:235) remarks on religion in the region is quite important, '...it will suffice to say that the people have a strong sense of the unseen world...with an immense variety of gods, spirits and demons, and into which they themselves expect to enter after death'. Every tribe believes in a Supreme Being, who has the universal qualities of being just and benevolent. However, ideas regarding His influence on (daily) human affairs vary from place to place and tribe to tribe. The IRBSs have developed on the basis of respective 'worldviews' which in turn are based on social, cultural and spiritual experiences of respective communities over centuries. And, the diffusion of ideas and interaction with the outside world has further enriched them. However, in every case, the man-nature-spirit continuum, the characteristic of ancient cultures and oriental heritage could be easily observed. Further, one may notice that the



 Adi, 2. Aka, 3. Apatani, 4. Bangini, 5. Chakma, 6. Deori, 7. Hill Miri, 8. Khamba, 9. Khamiyang, 10. Khampti, 11. Khowa, 12. Lisu/Yobin, 13. Memba, 14. Miji, 15. Mikir, 16. Mishing, 17. Mishmi, 18. Monpa, 19. Na, 20. Nepali, 21. Nishi/Nishang, 22. Nocte, 23. Sherdukepenn, 24. Singpho, 25. Sonowal Cachari, 26. Sulung, 27. Tagin, 28. Tangsa, 29. Tibetan, 30. Wanchoo, 31. Zakhring/Meyor

Fig. 2 Distribution of ethnic communities in the northeast Indian border (Note: Map is notional and does not depict correct boundaries). *Source* Singh (1999)

'sacred' is not only restricted to the 'creator' alone but also includes His creations rivers, mountains, forests, groves and so on. The creator is considered the Supreme Divine, and minor (benevolent) deities too are given the sacred status and worshipped accordingly. Another common feature is the existence of priesthood and the practice of socio-religious practices where the sacred and profane appear intermingling with each other with ease and simplicity as well.

The Mon cultural zone consists of the Monpas, the Sherdukepenns, the Akas, the Khowas and the Mijis. The Monpas are a dominant community and have considerable influence on the practices of other smaller tribes in this zone. It is noticeable that all of these are primarily not Buddhists as such. They practice their own indigenous religion which is apparently quite influenced by the Buddhist practices. The Akas are also considerably influenced by the Hindu practices.

The central part of Arunachal has three cultural zones, namely Nishi, Adi and Mishmi. Its significance lies not only in the fact that together it covers the largest area of the region but also for the fact the largest number of ethnic communities is found in it. The widely prevalent IRFS is called Donyi-Poloism (also 'DoonyiPoolo'). Literally, 'Donyi' means Sun and 'Polo' means Moon. Thus, this cult is actually worship of Sun and Moon gods. Among the Tani group of tribal communities (who consider their common ancestor Abo/Abu Tani as the first human on the Earth), Donyi-Polois considered the Supreme Creator and self-existing, the Sustainer and Protector of the world and all lives in it. He is the source of all souls and their

goals. He is considered an omniscient, omnipresent and omnipotent being. This faith system is polytheist in true sense. It is believed that Donyi-Polo is manifested as both a number of gods, goddesses and benevolent spirits as well as so-called evil spirits. It also stands for love, compassion, truth, knowledge, enlightenment and peace. It believes in oneness of all human races and other beings, and hence quite inclusive. Donyi-Poloists believe that the soul is immortal; its form only gets transformed. A deity called 'Ane Donyi' is also worshipped in this region. The (Idu) Mishmis worship goddess Nani Intaya, after which their IRBS is termed as *Intayaism*. The spirit (*Khinu*) rules their world of the unknown, though they have the concept of Supreme Creator known as Inni. "The Supreme God Inni, embodies the highest ethical conception reached by the Idus. Besides being Supreme Creator of all things, he is the impersonal principle of justice and the holder of the moral order of creation" (Baruah 1960: 69, as quoted in Chaudhari).

Besides this IRBS, other ethnic communities have different religious traditions. For example, many of them like the Khamptis and the Nas are Buddhists, the former are the followers of Hinayana Buddhism and the later Mahayana. However, the Meyors or Zakhrings follow the Lamaistic sect of Tibetan Buddhism, and they also worship *Yong* (the 'hill deity'). Among the Mikirs, two sets of religious belief systems are in vogue simultaneously. Traditional one is *Aronbaria* religion, and the second one, probably the result of Vaishnavite influence, is called *Lakhimon/Kirtoniya dharma*. Strong influence of Vaishnavism is found among the Deories; however, they mainly worship Tamreshwari Devi.

In the southeast cultural zone of Noctes-Tangsas, admixture of a variety of practices is found with the predominant Rang-Frahism (cf. Rao 2006b). Literally, 'Rang' means Sky and 'Frah' (also 'Fraa') stands for Earth. However, Rang-Frah is considered the Supreme Being by the Tangsas, the Tutsas, the Wanchooes and the Noctes. Rang-Frah is the unmanifested Supreme Divine having both objective ('Rang') and subjective ('Frah/Fraa') aspects. The divine will/power which operates all objects and beings including nature and human beings in the universe is said to be constituting the object aspect *Rang* of the god. The same divine will/power manifested through man as consciousness constitutes the subjective aspect. Human beings are considered the product of sky as father and Earth as mother, a deeper belief and creative symbolism found across many ancient cultures in the world. Similar to Donyi-Poloism, Rang-Frahism believes in polytheism, quite in tune with the general oriental religions, especially Hinduism (see, Khimun 2012a: 35–50, for details).

Elwin (1999: 437) remarks that the Noctes are the only tribe of Arunachal Pradesh who call themselves Hindus. Sonowal Cacharis are Vaishnavas and the followers of Sankar Dev—a great religious leader of Assam. Similarly, the Nepalis are also Hindus but not a tribal community. The Lisus generally follow Christianity but also have strong elements of indigenous belief systems in their daily practices. Similarly, the Singphoes, though Buddhist, have adopted many tribal practices. The Chakmas and the Tibetans are two such communities which have taken political refuge. Both are Buddhists, the former *Hinayanas* and the later *Mahayanas*.

4 Christianity, Conversion and IRBS

There is a section of intellectuals which feels that church and colonialism together have denigrated indigenous culture, tradition and heritage including faith systems among the tribal population, particularly those of the northeast borderland. Christianity indeed has a considerably long history in this region which could be dated back to at least the early twentieth century. In the later years, especially 1947, despite the efforts from the government side to promote IRBS, the Christian missionary outfits have been operating under cover. Restrictions were imposed on missionaries to stop them from building churches and carry out proselytising beyond the inner line. Nevertheless, Christianity has emerged today as the dominant force to reckon with and a faith practised by a host of non-Buddhist ethnic tribal communities in the region.

Conversion of tribal communities has 'psychological assault' as there was no spiritual content in the new [Christian] religion. Two reasons are commonly cited for the rapid conversions: expectation of miraculous results and the fear of 'hell-fire', as propagated by the Christian missionary activists (cf. Kumar 2012). Studies have revealed that Christian missionaries have 'adulterated' tribal cultures (Haimendorf as quoted in Horam 1975) which led to the loss of traditional social institutions and systems and also played direct role in breaking down the social ethos and cohesion in tribal village communities as evidenced by the establishment of separate villages/hamlets by the neo-convert Christians. Thus, two different worlds of the same community in a village apparently come into being, often hostile to each other. Greatest of all is the loss of identity. The invasion onto IRBS has facilitated (gradual) change/transformation of attitude and behaviour. Cultural change is perceptible in terms of language, dress and food habits. Allegedly three 'D'-evils (drugs, dolls and dance parties) net are laid to allure and catch the youth by missionaries (Parishad 2011). It is reported that in order to fulfil their goal, they adopt the tactics of alienating youth from their respective family and community and also the nation. It is harmful to the local culture and social cohesion in every sense seen from the national interest perspective, and hence an issue of serious concern.

5 Question of Identity and Revival of IRBS

The continuing missionary activities, despite restrictions/bans by the government authorities for the protection of indigenous culture and heritage, were successful in their goal of subjugating indigenous communities' psyche and winning over them through the tactics of foul play, some of which have been indicted earlier. Consequently, the tribal people themselves started looking down upon their own culture, tradition and heritage. This phenomenon gripped the youth rather strongly who fell prey to the lure and lustrous promises of quick change of destiny if they adopted the new religion (Christianity). No wonder, large-scale proselytization took place under cover (and it is still going on). Estimates vary as far as percentage of converts among indigenous communities is concerned; but the fact that their proportion is sizeable cannot be denied. In this way, not only indigenous and local cultural heritage was at stake and about to be lost, the greater threat was on *identity*. The community elders could sense the threat to their existence if the identity of their indigenous and local culture was lost. And, this realisation and series of consultations culminated into organised opposition by the Adis to (Christian) missionary activities and to institutionalise their indigenous religion which began on 28 August 1968 with a meeting of Adi intellectuals at Along (Siang district) (Dawar 2004: 164.In 1986 Golgi Bote Talom Rukbo founded Donyi-Polo Yelam Kebang on the 31st December. It was initially a common forum of the indigenous faith-believers which advocated for developing organised way of prayers and worship as per the customary practices. Consequently, Ganggins (literally, 'prayer centres/halls') were established across villages to keep Donyi-Polo images for worshipping. Though this movement started in the then Siang district, it successfully raised consciousness among people across tribes in different parts of Arunachal Pradesh and gradually spread inspiring similar revivalist movements locally (cf. Chaudhuri 2013). Rang-Frah movement in southeast cultural zone among Tangsas-Tutsas-Nocte-Wanchoos which started in an organised form almost three decades later in 1995 in the form of Rang-Frah Promotion Society is a good example of it (Arunachal Observer, an English daily published in the state, reported around one and a half-year back that 'more than 455 indigenous faith praver centres, including 65 Rang-Frah temples in Changlang and Tirap districts, have been set up since the movement began in 1999 in the state' (October 10, 2017).

Similarly, the Intavaism movement among Mishmis also has been gaining momentum gradually. It is noteworthy that symbols and motifs used in re-creating the divine images are sourced from the oral history and mythology of the communities concerned. There are end number of examples which reveal the closeness of the spiritual heritage of the tribal people in the region with the mainstream (cf. Mooshahari 2012: 3–8). A good deal of literature is known on cults, their emergence and responses, and consequences as well addressed from different perspectives (e.g. Beckford 1985; Rothbaum 1988; Wright 1991). In the similar vein, the revivalist movements have been under critical academic scrutiny. Such a work on the Tangsas and Rang-Frah has been attempted by Barkataki-Ruscheweyh (2015) whose analyses have focused mainly on an individual's preaching and propaganda, instead of treating the movement as a whole. Though it juxtaposes Christian conversion movement and revivalist movement, the conclusions drawn try to paint a poorer picture of the latter--quite common among outside observers. Assertion of identity in a creative manner cannot be painted and projected as a negative process, and every community has the right of the same—which evolves with internal dynamics, referring to contradictions.

As the logical outcome of such revivalist movements, the Indigenous Faith and Culture Society of Arunachal Pradesh (IFCSAP) came into being during the 1990s as an umbrella organisation, a conglomeration of all indigenous faiths and cultures of Arunachal Pradesh. The day of 31st December which was earlier celebrated as Donyi-Polo Day was accepted and celebrated as 'Indigenous Faith Day'. It was duly recognised by the Arunachal Pradesh state government as well. Since 2013, instead

of celebrating it on 31st December, it has been celebrated as a gazetted holiday on 1st December. It is a public function participated by public leaders, village elders and government officials apart from the general public. This day showcases and exhibits the richness of indigenous culture. It is marked by hoisting of flag, special formal prayers, religious discourses, cultural competitions, sensitisation through speeches and appeals made by respectable persons of society, distribution of CDs containing revivalist messages and lithographs of the Supreme Divine Beings in respective faith. It is agreed upon and underlined that the role of the institution of priesthood is significant in the preservation of indigenous cultural heritage that have the knowledge of not only the customary cultural practices but also the respective community's oral history—the repository of origin related myths and legends and culture. Emphasis is also being laid on undertaking programmes like documentation and codification of indigenous languages.

6 Discussion

The relevance and validity of the present essay lies in the fact that it has addressed two issues, IRBS and threat to them, which are generally avoided in academic circles in India. Religious belief system is an essential element of every community, may that be tribal or non-tribal. Manifested in multiple ways, it not only fulfils the religious and spiritual needs of people but also provides a firm basis of identity to associate with the fellow members of their own community. In any given region of India, people belonging to different faith systems co-exist with mutual respect to each other yet maintaining their own identity (cf. Malhotra 2011). In the same way, though the study area mainly consists of tribal populations that follow respective indigenous belief systems, other religions of the Indian subcontinent are also followed by many of the local people.

In the case of tribal communities, their IRBS might not have a well-developed philosophical underpinning but that does not accrue to lesser significance. However, the lack of awareness and consciousness among the tribal people definitely give an opening for organised religions that have the motive to invade and conquer culturally. Religious conversions by the self-proclaimed 'superior' religions and their organised activities including a variety of tactics is a live example of cultural invasion and a new form of colonialism. Such incidences of cultural onslaughts create division among ethnic communities which otherwise have the similar ancestral roots.

Though due to the lack of written texts and other reasons, reliable information for scholastic and philosophic scrutiny is not readily available, the recorded history including the IRBS from oral traditions by both the Western and Indian scholars have at least informed two things—the cosmogonic view closer and in some cases similar to the Vedic and Upanishadic views and the centrality of nature worship (cf. Elwin 1999, pp 1–84; Rao 2006c; Kumar 2012). It directly indicates diversity which is unified in many ways whether one sees it in the creation of Mother Earth from water or conceptualization of the Supreme Being or worship of the Sun and

Moon (cf. Khimun 2012b). This brings IRBS of the different tribal communities of Arunachal Pradesh closer to the ancient worldview of the mainland Indians which prospered in river valleys of the Indian subcontinent. It is a substantial evidence of the cultural linkage of the IRBS prevalent in the study region with other ancient world religions through Sanātanī traditions of Bhārat, i.e. India. Recognition and worship of the Sun and the Moon with sacred status of water provide proof to the fact that though the belief systems are different, their historicity is considerably old and linkage with other worldviews is stronger. Began mainly during the process of colonialism, the process of conversion of mainly marginal communities like tribal people to Christianity still continues or rather prospers on a false propaganda of their exclusion from the mainstream cultural, including religious, traditions and associated narratives. Religion promotes unity among members of a community; however, it has been losing its original structure in the study area. Changes in the cultural traditions particularly pertaining to the religious belief system have also been reported in the study area and also from elsewhere in the tribal regions of India. The new conversion process to Christianity resulted in a change in the structure of the village society, seen in the emerging hamlets/neighbourhoods belonging exclusively to the neo-Christian converts; in some cases, entirely a new village!

This new form of cultural colonialism aimed at universalisation not only detached the converted tribal people from their own roots but also made them antagonistic towards the nation concerned, here in the present case India (cf. Malhotra and Neelakandan 2011). It also accrues to loss of identity which they value and cherish otherwise and a threat of aggregation of (ethnic) identity. The revivalist movements across the region are an attempt of mass awakening seeking their own identity based on the realisation and spreading of the message of loss of identity among their fellow community members to become conscious of their past and future which ultimately are shaped by how the present is handled. Through a micro level case study, the main contribution of the present chapter thus is that it has addressed a contemporary issue of twenty-first century India having wider messages for co-existence of all yet remaining different.

7 Some Concluding Points

The above discussions lead us to conclude that the northeast borderland of India is a rich region in terms of indigenous culture and heritage of a large variety of ethnic tribal communities. They inherit and profess respective indigenous belief systems in which the Supreme Divine is manifested in different forms. The indigenous belief systems came under the threat of conversion by the Christian missionaries during the colonial period, particularly since the early twentieth century. The post-independence policy of the Indian government was directed towards the protection of the interest of indigenous people, including their local culture and heritage. Hence, the Christian missionary activities were officially prohibited beyond the 'inner line'. However, the missionaries were successful in their tactics of denigrating IRBS and converting a considerable number of tribal people. It led to the erosion of indigenous belief systems and culture, and was perceived to be threatening indigenous people's identity. Realisation of this problem and growing awareness about it forced elders and public leaders to conceptualise revivalist movements which started from Along (Siang) and gradually spread into the rest of the region. Government has also given recognition and open support to such efforts. The protagonists of this process are optimistic of the desirable changes, but they have to go miles before their dream comes true.

References

- Barkataki-Ruscheweyh M (2015) Best of all worlds: Rangfraism—the new institutionalized religion of the Tangsa community in northeast India. Internationales Asienforum 46(1–2):149–167
- Baruah TK (1960) The Idu Mishmis, Directorate of Research, Itanagar
- Beckford J (1985) Cult controversies: the societal responses to new religious movements. Tavistock, New York
- Bose ML (1989) Social history of Assam. Concept Publication Pvt Ltd., New Delhi
- Cadge W, Davidman L (2006) Ascription, choice, and the construction of religious identities in the contemporary United States. J Sci Study Relig 45(1):23–38. https://doi.org/10.1111/j.1468-5906.2006.00003.x
- Chaudhuri SK (2013) The institutionalization of tribal religion: recasting the Donyi-Polo movement in Arunachal Pradesh. Asian Ethnology 72(2):259–277
- Dawar JL (2004) Religious conversion and contending responses: a study among the Adis of Arunachal Pradesh. In: Mibang T, Chaudhuri SK (eds) Understanding tribal religion. Mittal Publications, New Delhi, pp 159–172
- Dikshit KR, Dikshit JK (2014) North east India: land, people and economy. Springer
- Durkheim E (1966) The elementary forms of the religious life. Allen and Unwin, London
- Eliade M (1963) The sacred and the profane: the nature of religion (Trans. Willard R. Trask). Harcourt, Brace & World, Inc. New York
- Elwin V (1957) A philosophy for NEFA. Office of Advisor to Government of Assam, Shillong
- Elwin V (1999) Myths of north-east frontier of India. Munshiram Manoharlal Publishers Pvt Ltd., New Delhi
- Greil AL, Davidman L (2007) Religion and identity. In: Beckford JA, Demerath III NJ (eds) The SAGE handbook of the sociology of religion. SAGE Publications Ltd, London, pp. 549–565. https://doi.org/10.4135/9781848607965.n27
- Horam M (1975) Naga polity. Publishing Corporation, New Delhi, B.R
- Khimun L (2012a) Philosophy and spirituality of Ranfraaism. In: Khimun L (ed) (2012) Sociocultural and spiritual traditions of northeast Bharat. Heritage Foundation, Guwahati, pp. 7–22
- Khimun L (2012b) Preface. In: Khimun L (ed) (2012) Socio-cultural and spiritual traditions of northeast Bharat. Heritage Foundation, Guwahati, pp. 7–22
- King PE (2003) Religion and identity: the role of ideological, social, and spiritual contexts. Appl Dev Sci 7(3):197–204. https://doi.org/10.1207/S1532480XADS0703_11
- Kumar BB (2012) Aspects of Janjati faith and culture. In: Khimun L (ed) op cit., pp 27-34
- Malhotra R (2011) Being different: an Indian challenge to Western Universalism. HarperCollins Publishers India, Noida
- Malhotra R, Neelakandan A (2011) Breaking India: western interventions in Dravidian and Dalit Faultlines. Amaryllis, Bhopal
- Mooshahari RS (2012) Foreword. In: Khimhun L (ed) op cit., pp 3-8
- Oppong SH (2013) Religion and identity. Am Int J Contemp Res 3(6):10-16

- Parishad AV (2011) Indigenous faith a fast growing movement in Arunachal Pradesh. http://jaagut haarunachal.blogspot.com/search?updated-max=2011-11-09T00:57:00-08:00&max-results=7 Accessed 12 Dec 2017
- Rao NS (2000) The emerging trends of religio-cultural revival and the Bhakti movement among the tribes of Indo-Burma border. Anusandhan Patrika/Itihas Darpan, July 2000
- Rao NS (2006a) Impact of Neo-Vaishnavite movement on the tribes of East Arunachal Pradesh. In: Dutta S, Naga Raju N, Tripathy B (eds) Cultural Heritage of Arunachal Pradesh, Indus Pub Co, New Delhi 2006, pp 121–138
- Rao NS (2006b) Tangsas religion and philosophy: a note on the Lord Rang Frah. In: Dutta S, Naga Raju N, Tripathy B (eds) Cultural Heritage of Arunachal Pradesh, New Delhi 2006, pp 139–148 Rao NS (2006c) Tribal culture, faith history and literature. Mittal Publications, New Delhi
- Rao NS (2000) Inpact of Shrimant Shankardeva's neo-Vaishnavite movement on the tribes of North-
- East India: a case study of the east Arunachal Pradesh. In: Tripathy B, Dutta S (eds) Religious History of Arunachal Pradesh, Gyan Publishing House, New Delhi, pp 276–359
- Rothbaum S (1988) Between two worlds: issues of separation and identity after leaving a religious community. In: Bromley DG (ed) Falling from the faith. SAGE, Newbury Park, p 205–28
- Singh RS (1999) Ethnic minority groups of Arunachal Pradesh, India: a study in cultural geography. Nat Geogr J India 45(1–4):112–121
- Singh RS (2005) Paths of development in Arunachal Pradesh. Northern Book Centre, New Delhi
- Singh RS (2015) Nature of land use and agricultural change in peripheral regions: a case study of Arunachal Pradesh, India. In: Dutt AK, et al (eds) Spatial diversity and dynamics in resources and urban development, Part I: Regional resources. Springer, 529–557. DOI https://doi.org/10. 1007/978-94-017-9771-9_28
- Sinha R (1977) Religion and culture of north-east India. Abhinav, New Delhi
- Taher M (1997) Ethnic situation in north-east India: a geographical perspective. North Eastern Geographer 28(1–2):1–15
- Thakur AK (2004) Pre-historic archaeological remains of Arunachal Pradesh and people's perception: an overview. Proc Indian Hist Congr 65:1185–1196
- Wright SA (1991) Reconceptualizing cult coercion and withdrawal: a comparative analysis of divorce and apostasy. Soc Forces 70(1):125–145



Ravi S Singh received higher education from B.H.U. (B.A. Hons), J.N.U. (M.A. & M.Phil.), and J.P.U. (Ph.D.). His doctoral research is in geography of sacred places dealing with goddess places in India. With over 22 years of teaching experience at different institutions, he is currently Professor at the Dept of Geography & Adjunct Faculty: Bhojpuri Study Centre, Banaras Hindu University. He has authored/edited nine books published from India and abroad, including two in press. Over 100 academic works of different genres of Prof. Singh, many of them cross-disciplinary, are published internationally as well as nationally in reputed journals and research series from the United Kingdom, Japan, Germany, Sweden, Nepal etc. including one in impact factor journal. Associated with several prestigious national and international professional bodies and academic programmes, he is Member: State Higher Education Council, Uttarakhand (since August 2017), Vice-President: Indian Society of Spatial Science Kolkata (3rd term), and Secretary: The Institute of Indian Geographers, Pune (2 terms), Treasurer: National Geographical Society of India (Varanasi, India) and member on the editorial boards of several journals. Prof. Ravi Singh has the honour of delivering the 31st Prof.

Nirmal Kumar Bose Memorial Lecture at the Geographical Society of India (Kolkata, 2014), Professor Enavat Ahmad Memorial Lecture (Ranchi, 2015), Prof. R.N. Dubey Memorial Lecture (Allahabad, 2019) and over six dozen invited lectures in different institutions across India. He has been Enrichment Fund (Association of American Geographers) Awardee, 2011; and Academic Advisor: The United States-India Educational Foundation, USIEF (2015-16). Prof. Singh has also the credit of contributing to over three dozen international and national seminars/conference/workshops on cross-disciplinary themes as Chief Guest, Guest of Honour, Keynote Speaker, Session Chair, Invited Speaker, and paper presenter in India and abroad in recognition to his professional expertise; and, organising seven national/international seminars/conference/workshops. He has supervised/supervising fourteen doctoral/post-doctoral research fellows. His foreign academic visits have been to the USA, Poland, The People's Republic of China, Sri Lanka, and Nepal. The main areas of his academic interest are geographical thought, geography education, social and cultural geographies, and development geographies with special focus on environment-development interface.

Heritage



Dakshineswar Kali Temple Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

Kautilya's Political Geography—Concepts and Ideas: An Example of Ancient Indian Geographical Thinking



Sudeepta Adhikari

Abstract India is a rich treasure of ancient literature indicating a strong intellectual tradition and heritage in mathematics, astronomy, science in different historical periods which is recognized worldwide. Each period in ancient Indian history is known for its literary and mathematical traditions. These literary treasures are epistemologically comparable to the classic Greco-Roman and mediaeval Arab contributions. Such intellectual accomplishments provided a framework of concepts, models, and paradigms of rich scholarly methods. Some of the ideas and concepts still hold relevance in the contemporary context. Many of the ancient Indian literatures and treatises are also rich in terms of geographical concepts and ideas which have remained in obscurity and not been explored enough. Generally, they do not find a place in the history of global geographical thought. The present chapter, falls in the domain of the ancient heritage of political geography as developed in during fourth century BCE in India, is an attempt to unfold the comparative politico-geographical concepts and ideas developed by Kautilya (c. 321–296 BCE), in his famous treatise: Arthashastra (c. 321–300 BCE, one of the great ancient Indian scholars who was also an accomplished administrator, diplomat, and statesman. The primary source used in this study is English version of Kautilya's Arthashastra, (trans. R. Shamasastry), published by the Government Press of Bangalore (1915). It has total 15 volumes, and each one of them is divided into several chapters containing altogether 429 slokas.

Keywords *Arthashastra* · Tradition · Heritage · Political geography · Political entity · State

1 Introduction

India is a rich treasure of ancient literature of different epistemes of social sciences and physical sciences. All these literatures are rich in tradition and heritage and point to the development of different epistemes, including the development in mathematics,

S. Adhikari (Deceased) (🖂)

Department of Geography, Patna University, Patna, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_11

astronomy, science in different historical periods. Each period in ancient India, therefore, is known for its literary tradition and mathematical tradition. These treasures of literature of ancient India are epistemologically comparable to the ancient literatures of Greco-Roman and Arab scholars and in some cases superior to the contributions of the ancient Greco-Roman and Arab scholars. Ancient Indian scholars had provided a framework of concepts, models, and paradigms of richly scholarly methods through their innovative studies over time, and that guided ancient Indian thinking for centuries, with some of the ideas and concepts still holding some relevance in contemporary thinking.

Ancient Indian literatures and treatises do contain rich traditions and heritage, pertaining to various geographical concepts and ideas, but lack of concerted efforts has kept these concepts and ideas in obscurity for long; otherwise, ancient Indian geographical concepts and ideas would have become more receptive, acceptable, attractive, and path-showing as 'innovative', particularly, in the field of ancient classical geographical thought. Most of the books on the history of geographical thought published from the 'West' hardly mention about the contributions of ancient Indian scholars. These books only refer to ancient Greek geography and ancient Roman geography, but not ancient Indian geography.

Similarly, there is no reference of the development of Indian geography in the Middle Ages, but there are references of the Arab geography, Chinese geography, and the geography of the Christian world, etc., in these books written by the western scholars. The proposed paper attempts at unfolding the politico-geographical concepts and ideas, developed by the great ancient Indian scholar, administrator, diplomat, and statesman: Kautilya, in his famous treatise: *Arthashastra*, believed to have been written between 321 and 300 BCE. Kautilya, if chronology is to be believed, then, it can be said, lived between 321 and 296 BCE.

Several works have been done on the various dimensions and aspects of Kautilya's *Arthashastra*, but no such comparable works have been done by Indian geographers, past and present, to identify the fundamentals of Kautilya's geographical ideas, particularly, the ideas pertaining to political geography.

It is, therefore, proposed to discover whether, or not, the *Arthashastra* contains concepts and ideas, pertaining to the spatial requirements, and spatial conditions of the 'kingdom', herein to be considered as the 'state'. Such a study will help in knowing the ancient heritage of political geography as developed in the fourth century BCE in India.

2 Source

The present paper is primarily based on the English version of Kautilya's *Arthashastra*, translated by R. Shamasastry, and published by the Government Press of Bangalore in 1915. It is the only original and authentic English source of Kautilya's *Arthashastra*, available in India. The English version of the *Athrashastra* has altogether 15 books, and each book is divided into several chapters. There are 429 *slokas*

in the treatise. All the books, chapters, and, particularly, slokas of the English version of the *Arthashastra* have been carefully identified, examined, treated, studied, and then analysed and assessed, to discover the politico-geographical concepts and ideas, rather 'hidden' in the treatise.

The treatise: the *Arthashastra* has been split into conceptual units, and the facts of concepts and ideas, pertaining to political geography, so identified, have been isolated and treated separately, to reveal the development of classical political geography in ancient India.

3 Who Was Kautilya?

Kautilya was one of the most controversial names in the history of ancient India. However, in terms of popularity, he comes next only to the heroes of the great epics and the Puranas. But, there is a controversy about his times and his authorship of the *Arthashastra*. To some historians, the treatise was composed and compiled in the third century CE, rather than in the fourth century BCE. It is believed that Patanjali's '*Mahabhashya*' does not contain any reference to Kautilya. Similarly, Megasthenes's travel account also does not mention the name of Kautilya. Hence, the Arthashastra is a work compiled by a number of pundits of successive periods (Ghosal 1945, p. 285).

However, the Vishnu Purana (IV 240) suggests that it was Kautilya who had overthrown the Nandas and put Chandragupta Maurya on the throne. From Indian epigraphical research, it is known beyond doubt that Chandragupta Maurya was installed as a king in 321 B.C. and that Ashokavardhana ascended the throne in 296 BCE. It follows, therefore, that Kautilya lived and prepared this famous treatise: *Arthashastra* somewhere between 321 and 300 BCE. It is, therefore, evident that Kautilya's time was from 321 BCE to 296 BCE.

The Puranic passage also ascribes Kautilya of having overthrown the Nandas and helped Chandragupta Maurya to occupy the throne (Roychaudhury 1927, p. 101). He was helped by the Arthas, the bands of robbers. The passage about the revolution reads like this:

Uddarishyati tan sarvan Kautilyo Vai dvirashtabhih Kautilyas ChandraGuptaanitu Tazo rajya bhishekshyati

The 'Nitisara' of Kamandaka acknowledges the authorship of Kautilya of the *Arthashatra*, and wherein he is identified as Vishnugupta. Bandi in his *Dasakumaracharita* (11.8) also ascribes the *Arthashastra* to Vishnugupta who is none other than Kautilya. The 'Panchatantra' also acknowledges the authorship of Kautilya of the treatise. Bana in his 'Kadambari' ascribes the *Arthashastra* to Kautilya, but he

strongly criticizes the science of Kautilya (as being mentioned in the treatise) in maintaining the earth.

Jayaswal (1924) and Johnston (1929) have provided examples, drawn from the Arthashastra, to prove that the treatise was written by Kautilyas during the fourth century BCE. Dikshitar (1931–1932) said that agricultural and religious practices and descriptions, mentioned in the *Arthashastra*, tend to confirm the view that Kautilya lived in the fourth century BCE, and the treatise was prepared by him sometimes between 321 and 296 BCE. Jacobi (1918) felt that the language and style of the *Arthashastra* appear to be homogenous throughout the treatise, and no substantial part can be said to be belonging to latter date (Mehta and Thakur 1980, pp. 3–4). The suggestion that Vishnugupta is different from Kautilya does not appear to be acceptable. Kautilya was also known as Chanakya in ancient Indian history and is believed to have overthrown the Nandas and installed Chandragupta Maurya on the throne of the Magadha, who later founded the famous Mauryan Empire, the first Hindu Empire to be founded in the subcontinent of India. Kautilya served Chandragupta Maurya as his prime minister for long (Majumdar 1974, p. 95).

Here, in the present paper, we shall regard Kautilya's authorship of the *Arthashastra*, having been prepared by him in the fourth century BCE with the object of maintaining the epistemological structure of ancient Indian political geography, particularly, concepts and ideas, developed in the treatise.

4 Concept of Kingdom (State and/or Political Entity)

'The central subject matter of political geography writing has been the state, despite the fact it is the only one manifestation of political activity though, to be sure, the focus of our most intense loyalties and, at the present, of greatest political power. The state, a politico-territorial or administrative unit, represents the organization of a particular area of the surface of the earth and of the people who permanently reside therein ... the surface of the earth is highly differentiated physically, sustaining a great variety of human cultures, while the established political units are unequal in size, shape, resources, population, level of economic development, and finally, in political power' (Jackson 1964, pp. 1–2).

Let us examine what concept/idea does Kautilya hold with regard to the state (kingdom herein)!

According to the *Arthashastra*, no territory deserves the name of a kingdom (herein a state) unless it is full of people and controlled by an agglomeration of power with absolute authority over the territory.¹ Kautilya further says that it is on the *Danda Niti* (science of government) that the course of the progress of the kingdom depends. It is a means to make acquisition, to keep the people safe and secured, to improve them, and to distribute among the people the fruits of improvements.²

Kautilya develops a 'contractual' theory, regarding the origin of a kingdom in his treatise. A kingdom comes into existence when a contract between the king and the people develops, but the contract is not intended to impose limitation on the royal power. The Kautilyan speculation about the contractual system appears to be in keeping with an advanced economy when different kinds of grains were produced, so that the king could lay claims not only to an unspecified part of paddy, but also to a fixed part of all kinds of grains produced. Kautilya maintains that the king should bestow on cultivators only such favour and remission (*anugrah pariharu*) as will tend to swell the treasury and shall avoid such will that depletes it. If the cultivators pay their tax easily, they may be favourably supplied with grains, cattle, and money. Kautilya further says that a king with depleted treasury would eat into the very vitality of the people of the kingdoms. Either on the occasion of opening new settlement, or on any other emergent occasions, remission of taxes shall be made.³

Kautilya further continues to say that a king, in terms of 'contract' with the people will construct roads of traffic for the accretion and for colonization of territories. He will undertake a job of constructing reservoirs filled with water either perennial or drawn from some other sources in those territories where the supply of water is not assured for cultivation. He talks of some kind of cooperative construction (*sambhuyu setubhandhat*). But, the king shall have his right of ownership in regard to fishing, ferrying, and trading in vegetables in reservoirs or lakes.⁴

It is argued that the king who assures security and happiness to his people by removing wrongful acts through coercion and taxes should never be disregarded. The 'contract' theory regarding the origin of the kingdom (herein the state) in the context of geographical growth of the kingdom, as explained in the *Arthashastra*, is a unique contribution of an ancient thinker of political geography.

According to a prominent historian: '...perhaps, the absence of contract theory in Greece may be attributed to the prevalence of non-monarchical rule in the country just as its presence in India may be ascribed to the general presence of the monarchical rule ... for it is significant to note that Hobbs, Locke, and Rousseau conceived of this theory under monarchical rule, either with the object of justifying it, or with that of limiting, or overthrowing it' (Sharma 1959, p. 62).

About sovereignty of the kingdom, Kautilya says that an effective government in control of the territory makes sovereignty (*rajatava*) possible, and it is through the science of government that sovereignty is maintained.⁵ He holds the view that sovereignty is possible only with assistance. A single wheel can never move.⁶ The king, the minister, the country, the fort, the treasury, the army, and the friend are the elements of sovereignty.⁷

These seven elements of sovereignty constitute different limbs (*angas*) of kingdoms. Each of these elements must possess distinct qualities. The king, being the most important element among the elements of sovereignty, must possess the following qualities: that he must belong to a high family, that, he must possess of velour, and must be virtuous, truthful, and highly enthusiastic, and should not be addicted to procrastination, that, he must possess of a taste of discipline, a sharp intellect, strong memory, and trained in all kinds, that he must possess of dignity, and should be capable of taking remedial measures against danger, and also possessed of foresight, ready to avail himself of opportunities when afforded in respect of place and time, and, that, he must be powerful to control his neighbouring kings, and must be free from all kinds of prejudices.⁸ As regards the quality of the minister, who constitutes the second important element of sovereignty, he must be a native and born of a highly family, influential, and well-trained in all kinds of arts. He must be wise, bold, eloquent, skilful, and intelligent. He must be pure in character, firm in loyal devotion, and endowed with excellent conduct. He must be enthusiastic and affectionate... He shall follow the king in his pursuits but must endeavour to read the mind of the king. He must try to remove whatever defects he finds in the king.⁹

In case of the death of the king, the minister shall install the heir-apparent, and then he should set the army against the enemy, and when attacked, he will take such measures to ward off dangers. The minister shall invest himself with the powers of sovereignty. In times of greater calamities involving the king, the minister shall keep the treasury and the army under the command of two reliable persons, either within the fort, or at the boundary of the kingdom.¹⁰

The nature of the country, defined in the *Arthashastra*, indicates that both territory and population are intended to be covered by the expression '*Janapada*'. On the qualities of the country, Kautilya says that it must have capitals both at the centre and at the peripheries and must be productive to sustain its population and also the people of the neighbouring territories who are in distress. The country must have the capacity to repulse the attack of the enemy. It must be free from interruptions and obstructions, but it must be full of resources, mines, and forests. The country must possess perennial sources of water, land, and waterways. It must be inhabited by agriculturists of good and active character. It must be capable of bearing the burden of a huge army. Population of the country must be loyal to their king.¹¹

As regards settlements of the country, Kautilya says that villages consisting of not less than a hundred families and not more than five hundred families of agricultural people of the *Shudra* caste shall be formed. There shall be set up a fortress of that name: *sthaniya* at the centre of eight hundred villages, a *dronamukha* at the centre of four hundred villages, a *kharvatika* at the centre of two hundred villages, and a *sangrahana* at the centre of just ten villages.¹²

The fourth element of sovereignty is the fort (*durga*). It is the fort that provided much of the security of the kingdom both in times of war and peace. Kautilya says that the construction of defensive fortification on all quarters of the boundary is a symbol of strength, provided they are situated on the strategically best-suited regions, such as a water fortification on an island in the mid- of a river, or plain surrounded by low ground, a mountainous fortification such as a rocky track, or a cave, a desert fortification in areas of a wild track devoid of water and a forest fortification full of wagtail, water, and thickets. Of these, water and mountain fortifications are meant to defend populous centres, and desert and forest fortifications are habitation in wilderness. Kautilya urges upon the king to build his fortified capital at the centre of the kingdom as the seat of his sovereignty.¹³ Forts constructed on or along the boundary must be connected with roads of traffic, so that movement will be maintained between the boundary and the capital. Forts are also constructed for storing agricultural problems, and such forts with grain store houses are to be used in times of national calamities.

The treasury is the fifth element of sovereignty. According to Kautilya, the treasury accumulated by righteous and legitimate manner should be retained by the king. The king may inherit the treasury which is filled with gold, silver, precious stones, jewels, and gems, and it should be capable of standing the strain of expenditure during times of calamities of long duration. Kautilya says without a treasury, it is extremely difficult to maintain the army and to keep it loyal.¹⁴ This is a clear recognition of the vital link between the two elements, although he makes a broader assertion that all activities depend upon the treasury. The possibility of the people being impoverished for the lack of treasury is not ruled out. If chronology is to be believed, then Kautilya might have discovered a rich treasury in the Vindhyan region, which he used in raising an army in favour of Chandragupta Maurya, in order to plunder the Nandas (Altekar 1949, pp. 44–49).

Next important element of sovereignty in order of priority is the army. The basic qualities of the army according to Kautilya are inheritance, loyalty, vigour, and energy. The army must be invincible and endowed with the power of endurance, trained in fighting in various kinds of battles, skilful in handling various kinds of weapons. The army should not bring in any state of instability in the kingdom, but it should be ready to share the sorrow of the king in times of calamities. The army should be composed of soldiers of the Kashtriya caste.¹⁵ However, Kautilya also recommends for the enlistment of other castes into army on consideration of their numerical strength.¹⁶

The last element of sovereignty is the friend, and he is the best friend of the king, who is always ready to help the king and is capable to help him in times of war and aggression and natural calamity. In order to emphasize the contrast, the enemy is defined as one who is not born of a royal family, and who is greedy, helpless, and impotent, and such an army is easily uprooted. Kautilya says, excepting the enemy, these seven elements possessed of their excellent characteristics are said to be the limb-like elements of sovereignty.¹⁷ The friend and an enemy have a significant role in this respect. To have a friend means, the king is internationally acknowledged as a power.

Kautilya makes it a fact that the elements of sovereignty very much depend on the character and potentiality of the king. A wise but intelligent king can change the poor and miserable elements of sovereignty into strong and powerful. Possessing a small territory, a wise king trained in the arts of politics conquers the whole earth with the best-fitted elements of his sovereignty and will never be defeated, but a wicked king with an unrighteous character brings about the destruction of his elements of sovereignty and his kingdom.¹⁸

Kautilya believes that when a part of one of the elements of sovereignty falls in trouble, the extent, affection, and strength of the serviceable part can be a means of accomplishing. When any two elements of sovereignty fall equally in trouble, they should be distinguished in respect of their progressive or declining tendency provided that the good condition of the rest of the elements needs no description. When the calamities of a single element tend to destroy the rest of the elements, those calamities, whether they are of fundamental or any other element, are extremely dangerous for the integration of the kingdoms. Kautilya also says that the calamities affecting the

king are more serious than the minister; similarly, the calamities affecting the minister are more serious than the country and the nature of its terrain. The calamities of the country are more serious than the fort and the treasury. But, the calamity of the army is more serious because they can create greater confusion in the kingdom.¹⁹

Kautilya states that in each kingdom, the constituent territorial units maintain some kind of 'contract' which is an important aspect for the kingdom, particularly, in the context of internal cohesion. But, he observes that geographical distance between the capital and the boundary is a factor for weakness and instability in the kingdom because there may be empty areas between the populated parts, and under such conditions, the provocation of any other minister, the priest, the commander-inchief of the army, and their hair-apparent constitute a threat of internal origin which weakens the internal cohesion. The longer the geographical distance from the capital, greater is the danger of external origin; such a situation in the kingdom, according to Kautilya, provokes the chief of the district, the officer-in-charge of the boundary, and the chief of the wild tribes to rise against the king. The frontier king under such situation instigates the people of lower origin to revolt against the king, and he also creates complete anarchy in the frontier region by giving material help to the people of lower origin like Shudras.²⁰

Kautilya also says that in a mountainous country, the forces of cohesion or internal unity tend to weaken because of the absence of cultivated land, and the people are generally impoverished. In a country which consists of purely war-like people, troubles normally appear due to the absence of an expansive and wide cultivated territory; similarly, in a country consisted of purely cultivated territory, troubles are due to the absence of fortification.²¹ He further says that the corporation of population in a particular territory generally becomes intolerant in times of natural calamities and wars and susceptible to anger and other passion; similarly, a relatively depopulated country is a source of constant danger and weakness.²²

Greedy people always remain dissatisfied and yield to the intrigues of an enemy if their concentration occurs close to the boundary. A dissatisfied people rise against their master along with his enemy.²³ To overcome these problems of internal space relationship, Kautilya prescribes or favours the development of the lines of communication throughout the kingdom.²⁴ Internal danger, according to Kautilya, should be first removed, as internal troubles are more serious than external troubles and are like fear from a lurking snake.²⁵

The integration of the kingdom, says Kautilya, depends upon the character of the king. When the king is well off, by his welfare and prosperity, he pleases the people, and the character of his subjects depends on the king's character. For the progress or downfall, the subjects will depend on the king. It is the king who creates the idea of belonging together, converting the diverse areas with cleavages into linkages, through a common flow of identity. The king is, as it were, the aggregate of the people, and on him, depends the *raison d'etre* of the kingdom. It is the king who must justify the reason for the existence of the kingdom.²⁶

With regard to the function of the kingdom, Kautilya says that it is the foremost duty of the king to bring together the diverse territories, occupied during the wars, under a single dominant political organization. He further says that there should not be any place for discontent in any of the territorial units, incorporated through military conquests. It is, therefore, necessary for the king to convert his kingdom into a homogenous political organization, but if the king fails to homogenizing the political structure, he may, then, face territorial problems.²⁷ It is through homogenizing the political structure, and the king can protect (*raksha*) his subjects and offer justice to them.²⁸

Regarding the economic function of the kingdom, Kautilya says that the king should carry on mining operations and manufacturing, exploit timber and elephant forests, offer facilities for cattle breeding and commerce, construct roads of traffic both by land and water, and set up market towns (*panapattiana*).²⁹

It is the function of the state urges Kautilya, to provide the orphans (*bala*), the aged, the sick, the afflicted, and the helpless with maintenance. The king shall also provide subsistence to help women when they are carrying and to the children, they give birth to. (*ibid*).

4.1 Elements of Spatial Structure of the Kingdom (Political Entity/State)

The kingdom (herein the state and/or political entity) comprises core area, capital city, boundaries, and frontiers, as the key elements of its spatial structure. The core area refers to some central area within a state that acts as the mainspring for its subsequent growth. The capital city is the control centre of the kingdom, the locus of political decision, and the seat of administration, besides being the centre of culture for the entire kingdom. Boundaries and frontiers, as spatial expressions of main social and political organization and territorial partitioning, have always been recognized and identified to be of prime importance as structural elements in the political geography of any territory—be it a kingdom, or a state.

Let us explain what idea or concept Kautilya holds about the core area of a kingdom. It is remarkable to see that the *Arthashastra* offers a conceptual framework regarding the evolution of the kingdom and/or the spatial growth of the kingdom. Kautilya observes that each kingdom grows around a definite area where the royal palace occurs, and this is the territory which seems to contain strategic potentialities, and here lies the capital of the kingdom.³⁰ Kautilya says that the birth and the death of the kingdom depend on the viability of this area around which the kingdom takes its shape. This area is conducive for the growth of grains or other productive crops, full of roads of traffic.³¹

Regarding the potential site of the area about which grows up the kingdom, Kautilya says that the area supporting the process of geographical expansion of the kingdom must be situated on the bank or on the confluence of rivers or near a pool of perennial water or of a lake or tank. In absence of perennial sources of water, an artificial canal of water must be constructed with the capital of the kingdom being connected with both water and land routes for movement. This would facilitate mobility across the area close to the capital.³²

Kautilya explains that once the capital has been founded on a site strategically bestfitted, the process of accretion and aggrandizement of territory around the original germinal areas begins with the rapid incorporation of the kingdoms of the inferior kings and that proceeds with the colonization of the territories.³³ The incorporation of the territories of inferior kings and the accretion and colonization of territories other than those already amalgamated should also proceed by annexation of the people suffering from anarchy as illustrated by the proverbial tendency of a large fish swallowing a small one (*matsyanyabhibbhutah prajah*).³⁴

The process of territorial amalgamation necessarily depends on the lines of communication, constructed radially from the area and/or the site where the capital is situated. Kautilya adds that the roads of traffic are a means to over-reach enemies and those which offer resistance and interruption that may be natural or man-made. It is the roadways on which the armies and spies depend for their march from one territory to another, thus strengthening the process of territorial amalgamation and growth. Kautilya holds the view that the roadways are means for the movement of population.³⁵

To Kautilya, capital city is the seat of sovereignty (*samudaya sthanam*) of the kingdom.³⁶ On the question of the location of the imperial capital city, he was aware of the need of a compromise between strategic consideration for defence from outside attack and those of nodality for successful space relationship with other constituent units of the kingdom. The capital must be invariably situated in the original nucleus of the territorial system of the kingdom. Successful functioning of the capital city also largely depends upon the degree of accessibility which the kingdom possesses.

For the imperial capital area and its localization, Kautilya favours a geographically central location where the king may have his fortified capital as the seat of his sovereignty. It must be best-suited for the purposes like the bank or the confluence of rivers, a deep pool of perennial water, or lake, or tank surrounded by an artificial canal of water. The royal capital should be connected with both land and water paths and must be at the cross-roads. Regarding the shape/form of the capital, he suggests and favours a circular, rectangular, or square depending upon local conditions.³⁷

Around the fortified capital, Kautilya urges for the construction of three ditches with intermediate space of one *danda* (6 ft.) from each other, fourteen, twelve, and ten *dandas*, respectively, in width, with depth less by one-quarter or by half-one of their width, square at their bottom, and one-third wide at their top, with sides built of stones or bricks, filled with perennial flowing water drawn from some other sources, and possessing crocodiles and lotus plants. At a distance of four *dandas* (24 ft.) from the innermost ditch, a rampart six *dandas* high and twice as much broad shall be erected by heaping mud upwards and by making it square on the bottom, oval at the centre pressed by the trampling of elephants and bulls and planted with thorny and poisonous plants in bushes. Gaps in the rampart shall be filled with fresh earth.³⁸

Kautilya is said to have introduced the concept of frontier capital—one near the most active frontier, and a suitable site must be chosen for such a capital. He says that the country must possess capital cities at the extremities of the kingdom, which must be productive of subsistence not only to its own people, but also to outsiders on occasion of calamities, repulsive of aggression, and powerful enough to put down neighbouring kings. He further adds that capital cities on the peripheries of the kingdom must be situated on the strategically best-fitted grounds and should be connected with land routes.³⁹

On the roles of the capital cities, Kautilya says that the royal, or imperial capital, being the seat of sovereignty must function in many roles. It is the place from where the king carries on his administration. It is the chief seat of the treasury (*samudaya sthanam*). It is the headquarter of the espionage system. It is the main religious centre (*dharmarite*), and the king governs the kingdom in the name of the religion (*dharmasutra*). The royal, or imperial capital, represents the spirit of religion and culture of the kingdom. It is the seat of the foreign emissaries (*rajdutas*), being the main centre for the science of diplomacy.⁴⁰

About the function of the frontier capital, the *Arthashastra* is very clear. *Antapala* or boundary guards will have their offices at these capitals, whose function, apart from strategic functions, will be to prevent illegal crossing of boundaries by unauthorized people.⁴¹ However, Kautilya does not rule out the possibility of changes in the location of such capitals at the peripheries, if they cease to perform strategic functions and fail to repulse invasions, and in that case, the king should find out viable but productive sites for the capitals.⁴²

4.2 Concept of Boundaries

The word 'boundary' denotes certain well-established limits (the bounds) of a given political unit, and all that is within the boundary, is bound together, and fastened by an internal bound. There is an intimate relationship between sovereignty and boundary. A state is a sovereign spatial unit, and sovereignty is territorial; hence, it must have certain well-defined known extent, a territory under exclusive jurisdiction limited by boundary. Boundary is one of the major elements, after the core area and capital, of the spatial structure of the state. A sovereign territorial unit is identified by its well-defined limits which are inviolable.

Kautilya also defines a boundary as the territorial limit of sovereignty (*anta-prajatava*).⁴³ No king shall enter into the territories of another unless it is called for, but the king is at liberty to extend the sphere of the sovereignty into the territories of the frontier king, if the frontier king maintains some kinds of territorial relationships and has guaranteed to accept the sovereignty of the conqueror. Kautilya says that the territorial limit of the conqueror king may also extend to incorporate the territory of the border people of these kings who do not have sufficient subsistence to feed their people. The conqueror king shall avoid the property of the Brahmanas who live in the frontier regions but faithful to the king.⁴⁴

Kautilya favours a strong boundary defence, with fortification for strategic purposes, for example a mountainous fort, a water fortification, a desert fortification, and a forest fortification.⁴⁵ The *Arthashastra*, thus, recommends for natural

boundaries. The concept of natural boundaries in India is as old as the Indian history itself. The tendency in the ancient period in India was more or less to go for naturally defined boundaries, such as mountains, rivers, and other water bodies, deserts, forests. Natural boundaries had greater strategic relevance so far as the security of the kingdom was concerned. Chandragupta Maurya's empire extended right up to the Hindukush mountains in the northwest, and the Hindukush mountains were regarded as being truly scientific (Mukherjee 1960, pp. 40–46).

Kautilya regards that the boundary is the symbol of strength and vigour. He says the king who is of true character and who possesses enough subsistence and a strong army must keep his limit of sovereignty (*anta-rajatava*) always changing; this is to say that Kautilya recommends that boundary of the conqueror king must not be stable, rather it should continue to extend it through incorporating the territories of inferior and wicked king. He holds the view that the boundary of the kingdom moves in all directions along with the development of the army and at the same time along with the development of the roads of traffic. He recommends that the conqueror should continue to expand his territories, till he finds that the limits of his territories are denoted and defined by natural features such as mountains, rivers, though he favours a 'glacis expansion' across mountains and others features.⁴⁶

Kautilya also says that boundaries tend to grow as a result of contract between the king and his subjects when the latter intends to colonize new areas, occurring on the extreme peripheral areas of the kingdom. He further says that in colonizing the territories on the extreme limits of the kingdom with four castes, colonization with the lowest caste is better because it is serviceable in various, plentiful, and permanent manner. Implied in the sloka is Kautilya's preference to 'caste' boundary, also.

Though Kautilya strongly favours natural boundaries, he also recommends for artificially defined boundaries, and such boundaries require to be erected by constructing buildings (setubandha) on the extremities, particularly where no observable features occur. However, Kautilya's preference for mountain boundaries develops from the defensive character, and the possible choiceable site is being the crest of the mountains. A mountain boundary is self-dependent. He says that fortification shall be constructed on mountains where heights are not sufficient. Similarly, he says long, but perennial rivers must form the boundary. A river boundary is also self-dependent, and fortifications must be constructed on the islands that occur in the rivers. Kautilya considers that mountains and rivers usually offer precision in boundary demarcation. He says that caves located in mountains shall also be considered for boundaries. Dense forests are suitable for boundary demarcation. Similarly, deserts devoid of water are also suitable for boundaries because of their easy identification and defensive character. Kautilya favours fortification in the forests and in the deserts. Fortifications in the water and mountains are best-suited to defend populated areas, while fortifications in forest and desert are suited to protect habitation from wild animals. However, where natural features do not occur, artificial buildings shall be constructed to denote boundaries. If it is difficult to construct artificial buildings to denote boundaries, then certain plants, such as bulbous plants (gristhi), silk cotton trees (talmali), acacia (sami), and milky trees (ksheera vriksha), shall be planted all along the boundaries. These plants have luxuriant growth and may develop into

forest. Kautilya urges for the construction of defensive fortification on all the four corners of the kingdom against the enemies. These fortifications will be constructed on strategically best-suited locations.⁴⁷

Though there is no mention of any other types of boundaries in the treatise, the *Arthashastra* does mention about 'caste' boundaries, within the kingdom. Kautilya says that territories inhabited by lower caste people of the four castes shall be clearly defined. In colonizing new territories and potential waste lands, the same principle of the 'caste' boundary shall be followed.⁴⁸

Kautilya studies the nature of boundary disputes that arise within the constituent units of the kingdom and between the kingdoms. Boundary disputes, says Kautilya, mostly occur in areas where artificial buildings are constructed to denote boundaries. Disputes occur when rivers change their flows and when their natural flow is obstructed. All kinds of disputes shall depend for their settlement on the evidence, furnished by the neighbours.⁴⁹

In all disputes regarding the boundary between any two villages, neighbours or elders of five or ten villages shall investigate the case on the evidence to be furnished by the boundary guards. The first task will be to acquaint with the boundary marks under disputes and then to describe the alignment of the probable boundary marks. If the boundary marks described are not found, then a fine of one thousand *panas* shall be imposed on the persons misleading the authority. The king shall distribute those holding among people which have no boundary marks.⁵⁰

Disputes concerning field and pasture lands shall be decided by the elders of the neighbourhood or of the village. If they are divided on their opinion, then the decision of the respectable persons shall be obtained. If both the methods fail, then the king takes possession of the disputed fields. Encroachment upon boundaries shall be punished with a fine of 24 *panas*.⁵¹

In case of disputes between the kingdoms, Kautilya says the boundary guards (*antapala*) of the disputed areas must first initiate discussions with his counterparts for an amicable solution. On their failure, the king may send their minister for that purpose, or he may invite the other kingdom with whom the king has disputes, to his capital, treating him as the plenipotentiary. On their failure to arrive at an amicable solution, the king may take initiative and visit that kingdom with whom the dispute has risen. According to Kautilya, the boundary disputes arise because of these factors:

- (1) Territorial claims by the neighbouring kings for economic, political, and strategic purposes;
- (2) Infiltration and illegal crossing of boundaries by the spies of the neighbouring kingdoms and illegal constructions across the river boundaries.
- (3) Obstruction to natural flow of the river(s) coming from higher areas to the lower areas, causing damages to the agriculture and other works and ill-definition of boundaries.⁵²

Kautilya considers that the immediate neighbour is the enemy, and such disputes are bound to occur between the two. When the king fails to settle the disputes, he may take the help of the Madhyama King and the Neutral King and their Council of States, but at the same time, preparation for war should continue. The king must take all necessary steps, such as strengthening fortification, mobilizing resources and armed forces, and withdrawing people from the disputed territories. When all the missions to resolve the crises and disputes fail, the king should declare war against the king with whom he has boundary disputes.⁵³

Regarding the functions of boundaries, Kautilya lists two major functions for boundaries: strategic and commercial. He asks for the defensive fortification on all the four corners of the boundaries, so that at the time of war, the kingdom can be protected from falling into the hands of the enemies. He also asks for the construction of the frontier capital for the purpose and appointments of boundary guards. The officer-in-charge of the boundaries may lead a part of his forces to slay the enemies.⁵⁴

There shall be forts constructed in the peripheries of the kingdom manned by boundary guards (*antapala*) whose duty shall be to look after the entrances into the kingdom.⁵⁵ Kautilya holds the view that passport shall be issued to people living in the peripheries or in the neighbourhood of the boundaries. Whoever is provided with a passport shall have freedom to enter or go out of the kingdom. There shall be specific boundary gates, but whoever enters the kingdom, or goes out without a passport, shall be fined 18 *panas*. A foreigner guilty of the same crime shall be punished with the highest amercement.⁵⁶

Kautilya recommends that illegal fording of a river boundary and crossing the river without permission shall be prohibited. When a person crosses a river outside the proper places, and in unusual times, he shall be severely punished. Pirate ships, vassals, which are bound for the country of the enemy, those which have violated the customs and rules in ports shall be destroyed. In boundaries, ferrymen shall receive the toll, carriage cess, and road cess. The property of persons travelling without a passport shall be confiscated.⁵⁷ Boundary guards shall also seize the weapons and ammunition, possessed by caravan unless the latter is provided with a passport to travel with weapons.⁵⁸

The officer-in-charge of the boundary shall also supervise the conduct of the commander-in-chief and will strictly follow the instruction given to him about his function.⁵⁹ The boundary gates shall be constructed, and the width of the gate shall be five 'hatas'. The superintendent of a river boundary shall increase commercial traffic by welcoming the arrival of merchandise.⁶⁰

4.3 Spatial Factors of the Kingdom (Political Entity/State)

Location, size, and shape are the spatial factors of a given political region. The term, 'location', refers to where is the political region situated, while the term, 'size', in the politico-geographical literature means the amount of earth's space it incorporates, i.e. the spatial extent, a political region possesses of the political surface, and with regard to the word, 'shape' of the political region, it is said the each political entity assumes a geometrical shape, i.e. the form, the spatial extent of the entity expresses over the political space of the earth surface. The geopolitical code of the political region depends on location, while the resource base, distribution of human resources,

and the length of the boundary of the political region depend on the size, and the internal cohesion of the political region and/or entity depends on the shape.

Kautilya observes that a river location of a kingdom is a factor of powerhood in a sense that it offers protection at the time of aggression. The aggressor shall have to construct bridges which is a difficult job for him. On the other hand, a perennial river is source of water for agricultural pursuits that increases the vitality and the vigour of the people to sustain any kind of calamities.⁶¹

Kautilya is in favour of expanding the territory beyond the mountains for strategic purposes and urges the king to follow it so as to annex a larger area with his kingdom and to make it stronger. However, he says that the location of the kingdom in relation to the desert offers protection from the enemy's army. For the lack of water and shades, the enemies will find it difficult to attack the territory of the conqueror, and the elephants of the enemies will be reluctant to move across the desert.⁶² With regard to the locational superiority of the fort to be constructed on all the four corners of the kingdom, Kautilya favours water and mountainous fortification, because of their immense strategic value to defend populated areas. A mountainous fortification shall be constructed on higher grounds, sufficient enough to help the army to keep watch on the movement of the enemy's troops; similarly, the construction of a fort on an island in the mid- of a river close to the country/kingdom also offers protection to the territory. Desert and forest fortifications close to the territory help the frontier people to live in peace and also help to protect the territory from the enemies.⁶³

Kautilya was conscious of the locational benefits of rainfall areas, and it is clear from his assertion that country which is located on such a place where rainfall occurs in different seasons acquires sufficient strength, because rainfall helps in the growth of forests and pasture lands and fills the rivers and lakes with water that help the agricultural works.⁶⁴

Kautilya's model of inter-state relations necessarily reveals a specific pattern of the distribution of the kingdoms in the context of 'vicinal' location, and the state policies are determined accordingly. He says that the king, who, being possessed of good character and best-fitted elements of sovereignty, is the fountain of policy, is the conqueror. The king who is situated anywhere immediately on the circumference of the conqueror's territory is the enemy (ari). The king who is likewise situated close to the enemy but separated from the conqueror only by the enemy is the friend (*mitra*) of the conqueror. In the front of the conqueror and close to his enemy, there happens to be situated the king who is the friend of the conqueror, next to him is the enemy's friend (arimitra), and next to the last, the conqueror's friend's friend, and next is enemy's friend's friend. In the rear of the conqueror, there happens to be situated a rearward enemy (parshnigraha), a rearward friend (akranda), an ally of the rearward enemy (parshnigrahas-ara), an ally of the rearward friend (akrandasara). The king who occupies a territory close to both the conqueror and his immediate enemy in front and who is capable of helping both is the *Madhyama* (mediatory) King. And, one whose territory is situated far from the territories of the conqueror, the enemy, and the Madhyama King and who is powerful enough to help them together or individually and is able to resist their attacks is termed as a Neutral King (udasina). Kautilya realizes that the geographical distance is a factor that helps the Neutral

King to develop fortifications and other necessary constructional works meant for the maintenance of the kingdom. Thus, there are the twelve primary kings.⁶⁵

Kautilya says that the conqueror is bound to adopt a sixfold policy: agreement, war, neutrality, alliance, marching, double policy, i.e. making peace with one and declaring war against another. The application of the sixfold policy is a source of peace, power, strength, and industry (development).⁶⁶

Kautilya favours a small-size state. He says a small size is better, in as much as it can be easily protected and defended, and it can be maintained with the army consisting of the people of the same origin and the money produced by the territory itself. On the other hand, he disfavours a large-sized state, because from the military point of view, a large state requires external armed forces to maintain the frontier region. A large size cannot be properly protected and defended.⁶⁷

Though Kautilya disfavours a large-sized state on account of being militarily weak and strategically vulnerable, he seems to be aware of the fact that a large-sized state is rich in resources and offers many opportunities for development. A large state usually consists of fertile and extensive territories, agricultural lands, forest resources, and pasture lands that make up the state strong.⁶⁸

Kautilya favours a friend (*mitra*) possessing vast territory because such a friend is capable of helping the king at the time of calamities. To him, both friends and gold can be acquired by means of territory; hence, a friend of vast territory is far better. The people of the territory, Kautilya says, may differ in possessions and qualification for the formation of army.⁶⁹

A larger state has different types of forests, which are used for the construction of forts, weapons, chariots, conveyances, etc. Elephant forests are the source of elephants, and pasture lands are the source of cows, horses, and camels to draw chariots. A large state is also a source for mines which yields materials for strategic purposes. A large territory usually consists of large number of people which can be employed in the military camp, to serve the soldiers fighting in the battle fields and to terrify the enemy by its number and size.⁷⁰

Though, there is not much reference in the *Arthasastra* with regard to the political implication of the geographical shape in the life of the kingdom, but it favours a 'circular' and/or 'compact' shape for the kingdom, because such a shape minimizes the roads of traffic, both land and water throughout the territory of the kingdom and also the length of the boundary of the kingdom. In a circular kingdom, the king will have its fortified capital constructed at the centre, and the distance from the capital to the peripheries, or outlying areas, is kept to a minimum. A circular kingdom is a source for powerhood vis-a-vis cohesion.⁷¹

4.4 Physical Factors in the Life of Kingdom (Political Entity/State)

Physical factors such as relief, rivers, and climate play crucial roles in life as well as in the power potentials of the political entity. Kautilya identifies the relevance of the physical factors in political geography of a political entity (herein kingdom), however, in a deterministic way. He emphasizes the mountainous boundary for the kingdom because it is easier to define a mountain boundary. Such a boundary offers protection from aggression, and at the same time, it provides opportunity to the conqueror to destroy the enemy. Mountains, because of their invulnerable character, obstruct the movements of enemy troops. Kautilya considers that relief features make up good boundaries on account of their protective and self-defensive characteristics.⁷²

Apart from the defensive quality of mountains, a mountainous country, according to Kautilya, is devoid of food stuff, people, pasture ground, fodder, firewood, and water and is, therefore, not favourable for the army and the political growth. Such a country with mountains, usually, consists of few impoverished people.⁷³ But, one thing is clear, again, that a mountainous country is of self-defensive nature, and a fort on it is of immense service, as it offers facilities to throw down heaps of stone, trees, and arrows over the enemy. Kautilya considers that seizing of land from the low ground is easier because those fighting from low grounds must fight in time and space of adverse nature; on the other hand, the seizing of the land from the plains is not easier. He observes that of the two enemies, one fighting from the ditches and the other from the heights, seizing the land from the former are better, for they can be serviceable in as much as they fight from the ditches and with weapons in hand, whereas the latter can only fight with weapons in hand.⁷⁴

Kautilya observes that a plain is always conducive to the growth of crops and fruits throughout the year and normally consists of peace-loving people. He says that a limited tract of plain with water is also conducive for agricultural activities. Of plains, that which is conducive to the growth of both early and late crops and which requires less labour and less rain for cultivation is better than the plain which consists of several ridges. Of the two watery tracts, one of the limited areas, conducive to the growth of grains, and another vast and productive of crops other than grains, the latter is better, because it affords vast area not only to grow spices and other medicinal crops, but also to construct forts and other defensive works. A plain is rich in grains fills in both the treasury and the storehouse, while a plain with mines and which yields precious things to purchase large tracts of land is far better than the former, says Kautilya.⁷⁵

Kautilya holds the view that mountains have considerable economic significance because most of the gold and silver mines are located on the mountain, for example *Satakhumba* (this is the colour of petals of a lotus flower) is a gold which occurs on the mountain of *Satakhumba*, and another variety of gold known as *Vianava* (this is the colour of the flower of *Karnikara*) occurs on the mountain of *Venu*. Similarly, silver mines occur on the mountains of the countries of Gauda, Kambu, and Chakrabala. Kautilya says that these mountains have strategic significance because weapons can be purchased by the gold and silver, and the armies can also be recruited. They may also be kept united. Finally, he says that attempts should be made to conquer such country.⁷⁶

On the quality of relief with regard to the movement of elephants, horse chariots, and men, Kautilya says that which is even splendidly firm, free from mounds and pits made by wheels, and footprints of beasts, not offering obstructions to the axle, free from trees, plants, creepers, trunks of trees, not wet and free from pits, anthills, sand and thrones, is the ground for chariot. For elephants, horses, and men, even or uneven grounds are good either for war or for camp. That which contains small stones, trees, and pits, and that can be jumped over and which is almost free from thrones is the ground for horses. That which contains big stones, dry orb green trees, and anthills is the ground for the infantry. That which is uneven with assailable hills and valleys, which has trees that can be pulled down and plants that can be torn, and which is full of muddy soil free from thorns, is the ground for elephants. That which is free from thorns, not very uneven, but very expensive, is an excellent ground for infantry. That which is doubly expansive, free from mud, water, and roots of trees, and which is devoid of piercing gravel is an excellent ground for the horses. That which possesses dust, muddy soil, water, grass, and weeds, and which is free from thorns and obstructions from the branches of big trees is an excellent ground for the elephants. That which possesses lakes, and which is free from mud and wetlands, and which affords space for turning, is an excellent ground for chariots. Finally, Kautilya says that for men who are trained to fight in deserts, forests, valleys, plains, and for those who are trained to fight from ditches or heights during the day and night, and for elephants which are bred in countries with rivers, mountains, marshy lands, or lakes, and for horses, such battle fields as they would find suitable. Favourable positions for infantry, cavalry, chariots, and elephants are desirable both for war and camp.⁷⁷

Nevertheless, Kautilya holds the view that it is easier to construct roads for traffic in the plains and on all quarters of the kingdom. This facilitates the movement of people, armies, and goods from one place to another; on the other hand, it is difficult to construct lines of communication in the mountainous country which is full of mountains and valleys.⁷⁸

According to Kautilya, large kingdoms grow up close to perennial, but large rivers, because the rivers provide immense security and access. At the same time, water is drawn from rivers for agricultural purposes. He prefers boundaries to be denoted by rivers because they can be easily identified and demarcated. A river boundary is defensive in nature.⁷⁹ He favours river fortification and wherever islands occur in the mid- of rivers, forts shall be constructed because such forts are meant to defend the populated parts of the territory. It requires more effort to capture river forts than the forts in the plains. He points out that a forest must possess a perennial river as limiting factor and element, or in other word, a river on the boundary of the forest is desirable, because the river makes the forest self-sufficient in valuable products and helps in trading of the forest products. A river in the forest is also beneficial in the sense that it supports the people of adjoining areas in times of calamities. A river in the forest also obstructs an advancing army and makes the forest self-dependent. A

perennial river in the kingdom offers facilities for irrigation of large tracts than water drawn from other sources.⁸⁰

Kautilya is of the opinion that a river, if it is navigable throughout the year and throughout its course, is the source for the growth of the political entity. Several towns develop on its bank, and the movement across the river is less expensive, but productive of large profits. Further, he says that a large but perennial river is a source for political cohesion. 'Of water routes, one along the shore and another in mid-ocean, the route along and close to the shore is better, as it touches at many trading port towns; likewise, river navigation is better, as it is uninterrupted and is of avoidable or endurable dangers.'⁸¹

To Kautilya, conflict within the kingdom and the state is a natural phenomenon and develops on the problem of sharing of the river water for irrigation and other construction works. He says it is found that the tendency to obstruct the natural flow of water from higher ground to lower ground always raises problems. He opines that the flow should not be stopped unless it has ceased to be conducive to the growth of grains and the people migrated to other places. But if a deliberate attempt is made to obstruct the flow, then the penalty should be imposed on the people who recklessly obstruct the flow.⁸²

Navigation at the time of Kautilya was very much developed, and at the same time, it was subject to frequent obstruction due to illegal infiltration and fording of the river. To check such infiltration, he asks for the appointment of a superintendent who is advised to examine the common custom in commercial towns and to check infiltration especially at the mouth of rivers and on rivers which are close to the *asthaniya* and other fortified cities. A superintendent is also asked to show kindness to those ships which become victims of bad weather. It is the duty of the superintendent to put a ban on illegal fording of rivers and to disclose the grade and/or quantum of fines to be imposed against those who ford rivers illegally. When a person crosses a river from an unauthorized place in unusual times, he must be punished. In those large rivers which cannot be forded over during the winter and summer seasons, there shall be launched large boats with captains. Small boats shall be launched in small rivers which overflow during the rainy seasons. Villages on the banks of rivers and lakes have to pay a fixed amount of tax.⁸³

Kautilya says that perennial water features are sources for irrigation schemes for good harvest of crops which adds strength to the life of the political entity/kingdom. To achieve good results, one must bring in operation the irrigational works from the perennial water bodies. Irrigational works attached to the perennial water bodies are better because at the time, an extensive area can be irrigated. Lastly, he says that the boundary which is denoted by a seasonal water is not self-dependent because such a river when it gets devoid of water is subject to attack and the enemy troops very easily cross such river without any obstruction. Towns which are situated on the banks of seasonal river always face crisis.⁸⁴

With regard to the role of climate in the political life of the kingdom, Kautilya says that climate is an index of power because the cultivation of different kinds of grains which fill in the storehouse and increases the potentialities of the treasury, which itself is an important element of sovereignty. To him, when one-third of the

requisite quantity of rain falls during the commencement and closing month of the rainy season and two-third in the middle, the rainfall is considered consistent and conducive for growth. He forecasts that the occurrence of such rainfall can be known by observing the position, motion, pregnancy of Jupiter, the rise and the setting and motion of Venus, and the natural and unnatural aspect of the sun. From the sun, the sprouting of the seeds can be inferred; from the position of Jupiter, the formation of grain can be inferred; and from the movement of the Venus, rainfall can be predicted. When rain, free from wind and unmingled with sunshine, falls, that makes possible three turns of ploughing, with reaping of good harvest. Thus, the strength of the kingdom increases. To Kautilya, rainfall is the main determinant.⁸⁵

Kautilya holds the view that where the rainfall is less, such as in the desert countries, people lack vigour and energy to sustain any calamities. He divides climate into cold, hot, and rainy periods and says that kings should understand such works as are conducive to the growth of his power and prosperity in these divisions of climate. He regards that there exists a causal relationship between the climate and the marching of the army. He said that the king should start marching his army against the enemy in the month of December (margashirsh) because the enemy at that time will not be able to repair his fortification and will be running short of food grains. If the king wants to destroy the enemy's autumnal crops, the king should march in the month of March (chaitra). The king should march during the month of May and June (jyestha) against the enemy whose storage of fodder crops and firewood has declined considerably. The king may march during the dry season against a country which is of hot climate, and in which fodder crops and water are obtained in very little quantities. The king should march in the summer against the country in which the sun is enshrouded by mist, and which is full of deep valleys, trees, and grasses. Against a desert country where the rainfall is extremely low, one should march during the rainy season with the all four constituents of the army consisting of elephants, horses, chariots, and men. When the water is free from heat, one should march with an army mostly composed of elephants. Elephants with profuse sweat in hot weather are attacked by leprosy, and where they have no water for bathing and drinking, they lose their quickness and become weak and useless. Hence, against a country containing plenty of water and during the rainy season, one should march with an army mostly composed of elephants. Against a country of reverse character that has little rain and muddy water, one should march with an army mostly consisting of horses, camels, and asses. However, Kautilya lastly says that the king should prepare a programme of short- and long-distance march in accordance with the nature of the ground: even, uneven, mountains, plains and valleys, and climate.⁸⁶

5 Population and Power of the State

Population is an important source of power and one of the chief elements of national power. It plays a key role in the internal and external space relationships of a political

entity. The territorial identification of a political entity depends on population. It is one of the elements of sovereignty of the modern nation state.

With regard to the relative importance of population in the political geography of a political entity, Kautilya says that no territory deserves the name of a kingdom or a country, unless it is full of population, because the identity of the kingdom or the country solely depends upon population. Much of the strength of the kingdom depends on it. Kautilya favours a large population which is conducive to the manifold growth of the kingdom or country because it gives huge manpower which can be used both in times of war and peace. A country with a vast population releases its population in times of aggression, and thus swoops into the enemy's territories. Kautilya is of the opinion that the success of the sixfold policy also depends upon a vast population. A vast population also yields a good army, capable of sustaining calamities. He urges upon the king that he should make friendship with such a king who has a vast population and a vast territory. Kautilya favours a dense concentration of population. A large number of population can be employed to do other kinds of works in the camps, to serve the soldiers fighting in the battle fields, to terrorize the enemy by its huge numbers.⁸⁷

Though Kautilya favours a large size of population, he identifies some demerits of large population size. He says that in a country with a vast population, the vulgar men form the majority of the population, and such people lack courage and wisdom. One the other hand, one in a thousand may or may not be a noble man, and it is he who is possessed of excessive courage and wisdom and is a refuge of vulgar people. A vast population usually consists of people of different caste structure and inherent weakness, comes from the people of low origin, and who usually remains greedy and impoverished. It is difficult to achieve unity among them.⁸⁸

Nevertheless, Kautilya supports a thickly populated kingdom and disfavours a depopulate country because it is a symbol of strategic weakness and has problems in raising manpower for the manifold growth of the kingdom. At the same time, he seems to be conscious of the political unity of a depopulated country when he says that such a country is peopled by only high-caste people who are capable of sustaining calamities but have excessive courage and wisdom, and whose king is a righteous man who is trained in all qualities of arts of government, and it is easier for the king to govern a depopulated country. Kautilya also states that the population should maintain a balance with the resources available in the country. If the resources available are inadequate in comparison to the number of the people, there is every possibility that the people may desert their king and become impoverished and greedy.⁸⁹

With regard to the pattern of the distribution of population, Kautilya says that though the distribution of population is a factor, but at the same time, it may also be a source of potential danger, if the major concentration of population occurs close to boundaries. If in times of natural calamities, the king fails to provide foods and shelter to the people living close to boundaries, they become impoverished and create instability. He points out that it is dangerous to have concentrations of lower caste people on the peripheries of the kingdom because very often their loyalties and allegiance change. Kautilya considers that the occurrences of haphazard distributions of the forest people and frontier people in the vicinity of the mountains, separated by forests, or close to the moving, or changing boundary, would be dangerous for the king to maintain stability, rather such types of distributions necessarily weaken the power of the kingdom.⁹⁰

To Kautilya, a scattered distribution of population away from the boundaries of the kingdom is, to some extent, better because they are not susceptible to intrigues of the enemies. This is because of the fact that separate concentrations of population with local heads necessarily obstruct the meeting of all the local heads to a common platform against the king. On the other hand, a territory with an agglomeration of population may be a potential source of danger against the king and his kingdom because the people of such territory are bound to be highly obedient to their local leader. If the territory is affected by war and other calamities, then the consequences become disastrous and the people become susceptible to hunger and passion. This gives opportunity to enemies to do conspiracy and intrigue against the king and the kingdom. It is possible that the local chief may be brought under influence by the spies of enemies, and they may instigate him to imbue with the germs of disaffection to the people to rise against the king.⁹¹

Kautilya opines that the population must consist of a young population, or more than half the population of the kingdom must be younger in age. He says the larger the number of the young population, the greater is the strength because the army consists of a younger population who are full of energy and vigour and capable of sustaining calamities of longer duration. Young people perform successfully the duties of spies. Though he favours the younger population, he does not disfavour the older population, because they are the sources for enthusiasm and inspiration for the younger people. The older people by virtue of their experience, both at the battle fields and at agricultural fields, are constant sources for inspiration. Kautilya points out that younger people work hard in different constructional works such as construction of forts and wooden bridges. They also work in the fields. If the younger population is larger, half of them can be given training for the armed forces and the remaining for different types of work. Kautilya favours fast growth of population, and for that, fertile girls shall be encouraged to marry earlier.⁹²

Kautilya prefers males to females. He is of the opinion that the real strength of the country lies in the males who form the bulk of the armed forces and other labour forces. Women have to work in the houses, but young and barren women shall be appointed as spies. The loss of men in the war and other calamities shall be compensated by more births.⁹³

With regard to the character of the people, Kautilya says that much of the strength, identity, and security of the country depend on the character of the people that they must be virtuous, truthful, grateful, and not of contradictory nature. A state must possess valour and a test of discipline. They must be capable of taking remedial measures against danger. The people must possess a sharp intellect and strong memory. He points out that it is on the character and the quality of the people that the development of the country depends, no matter whatever be the birth of the people.⁹⁴

Kautilya holds the view that when a people get impoverished and become greedy and disaffected, they voluntarily go to the side of the enemy and destroy their own king. Greedy people are always discontented and yield themselves to the intrigues of the enemy. Disaffected people rise against their master along with his enemies. An impoverished people are ever apprehensive of oppression and destruction and are, therefore, desirous of getting rid of their impoverishment either by waging war or by migrating to enemy's territory.⁹⁵

Kautilya says that migration of population occurs either due to forced expulsion or due to colonizing new territories. When a new territory is incorporated in the kingdom by means of aggression and military amalgamation, the people or the subjects of the territory are forced to vacate their lands. If they fail to resist, they leave their territory and go to the forest. He further says that even within the kingdom, the people of low origin are forced to leave their areas and places. They are mostly driven out to the waste lands. Kautilya favours forceful expulsion of the low-caste people from the vicinity of the capital. Movement of population also occurs when the king desires to colonize new territories, and the low-caste people are sent there to work. A watery land is favourable for colonization. Migration also takes place due to calamities.⁹⁶

Kautilya favours the immigration of the impoverished people of his enemies into his territories. The movement of the impoverished people of his enemies will naturally weaken the power of his enemies. But, he is convinced that the migrated impoverished people should not be kept in disaffection because they may create potential danger for the country. If the king is clever enough to incorporate this migrated impoverished people into the mainstream, then it will be a source of powerhood.⁹⁷ The king can induce foreigners to immigrate, or by causing the thickly populated centres of his kingdom to send forth the excessive population (*svadesabhishy* and *davamanena*), the king may develop villages either on new sites or on old ruins to relieve pressure.⁹⁸

6 Resources and the State Power

The term 'resource' in political geography may be defined as anything a nation has, can obtain, or can conjure up to support its strategy (Pounds 1972, p. 159). Power of the state or country depends on the availability of resources and their proper utilization. Resources, therefore, constitute an element of state power. Kautilya makes it clear that resources are a means to acquire superiority over the others, and the successful operation of the sixfold policy depends on the resources. The presence of resources in own's territory is a factor for powerhood for the king to acquire a superior position in the council of states. A state which is devoid of resources is like a barren cow, and the king becomes inferior to others and is always subject to invasion, and territory is subjugated. Resources, according to Kautilya, are a means to attain enjoyment and to achieve success.⁹⁹

Kautilya says that the king who is assured of resources in his territory must take the offence. He points out when the conqueror and his enemy simultaneously proceed to capture the rear part of their respective enemies who are engaged in an attack against the others, and he who captures the rear of one who is possessed of vast resources gains more advantages (*atissandhatte*): for who is possessed of vast resources has to put down the rear enemy only after doing away with one's frontal enemy already

attacked, but not one who is poor in resources and who has not realized the desired profits. Kautilya advises that a king whose territory is devoid of resources must observe neutrality and should not get involved in war. If a king takes the risk of getting involved in a war, he will be perished along with his people.¹⁰⁰

Kautilya observes that mines are the source of whatever is useful in the battle fields. Timber forests are the sources of such materials as are necessary for building forts, chariots, conveyances, and other materials. Elephant forests are sources of elephants. Pasture lands are the sources of cows, horses, camels to draw chariots in the battle fields. The king whose territory possesses of all these qualities is assured of all types of enjoyments and secures military successes.¹⁰¹

Kautilya emphasizes the importance of agricultural resources in the life of the country and says that agricultural activities are necessary for the kingdom to maintain stability in the territory. He asks for the appointment of superintendent of agriculture to look into the agricultural activities. He shall be assisted by slaves, labourers, and the prisoners. These persons will be held responsible for any agricultural loss and will be fined accordingly. The superintendent of agriculture shall be accountable to the king.¹⁰² The superintendent of agriculture shall sow seeds according to the requirement of water and to the changes of seasons. A good harvest depends on good rainfall. The superintendent shall grow wet crops (kedara), winter crops (haimana), summer crops (graishmika) according to the supply of labourers and water.¹⁰³ Kautilya states that where the rainfall is scarce and very low to facilitate agricultural activities, then provision should be made for irrigation works. Irrigational works are the sources for some of the crops required for the maintenance of the army. Kautilya emphasizes the cultivation of food crops such as rice crops. He also favours the cultivation of cotton which is an important raw material for clothes and uniform for men, women, and the army.¹⁰⁴

Kautilya puts emphasis on the construction of the grain storehouses both in the vicinity of the capital and on the peripheries of the kingdom. He feels the need for sufficient numbers of storehouses across the kingdom, so that in times of calamities like war, flood, or famine, people should not suffer for want of food. There should be regular supply of foodstuff to the armies fighting in the battle fields. He says that troops whose supply of grain is curtailed or if it fluctuates, then there is every possibility of troops being impoverished and unruly and difficult to maintain. The people of the kingdom should be provided with adequate foodstuffs, and it is the duty of the king to see that no one should die of starvation.¹⁰⁵

Kautilya says that mines are the sources of different kinds of war materials which are needed in the battle fields. He points out that there are certain kind of minerals which are needed for the manufacturing of weapons, such as sword, arrow, *charka*, *trisula*, spade (*kuddla*, *sakti*, *prasa*, *kunta*, *kirpana*, *trasika*), and other weapons which have sharp edges like ploughshare (*halamukhanis*). He observes that the presence of mines with minerals exclusively needed for war decides the effectiveness of the powerhood of the kingdom. A superintendent shall be appointed to look after these mines of considerable military significance. The mines, Kautilya says, depend the treasury and the army, which together make possible the acquisition of new territories and wealth.¹⁰⁶

Kautilya says that gold mines and silver mines are the chief sources of the wealth and treasury and are capable of withstanding calamities of longer duration. He says that the products of the mines are the means to acquire and purchase military materials and weapons. Each of the mines should be placed under a superintendent whose chief task will be to check illegal infiltration from the enemies' territories. Mines which yield minerals as are used in preparing vessels as well as those mines which require large outlay to work out may be leased out for a fixed number of shares of the output or for a fixed rent. Such mines can be worked out without much outlay and shall be directly exploited by the government agencies. The superintendent of metals (*lohadhyakshah*) shall carry on the manufacture of copper, lead, tin, mercury, bronze, brass, sulphurate of arsenic, and also of commodities from them.¹⁰⁷

Kautilya was conscious of the strategic importance of manufacturing activities. He says that the king should see that the superintendent of manufacturing is doing his duty well. Manufacturing of weapons and military equipment is the vital necessity for the maintenance of security of the kingdom. He also favours manufacturing of threads, clothes, and ropes, and for that superintendent of weaving shall be appointed, and who shall employ qualified persons to manufacture textiles. A special provision shall be made for the manufacturing of uniforms meant for the army.¹⁰⁸

To Kautilya, horses and elephants are the two important animals used for strategic and military purposes. He says that the success and failure of the war depend on them. Thus, these two are the strategic animals, and hence, they require special treatment. Kautilya points out that the best quality of the horse is that whose face is six feet, and which is ten feet in length with legs of 1.6 ft., and the height of four times of the leg. Horses of medium and lower sizes will be smaller in size than the above quality. The regular training of the horses is essential for their preparation for war. Kautilya appeared to have knowledge of the areas which were known for the horses. He says the breed of Khamboja, Sindhu, Aratta, and Vanaya are the best, those of Bahlika, Papeya, Sonvira and Chaitala are of middle quality, and the rest are ordinary. Horses will carry chariots to the battlefields. Qualified trainers and teachers shall be deputed to train those horses and will see to the manufacturing of necessary war accoutrements of horses.

Kautilya stresses the need for the appointment of superintendent to look after the elephants. He says the superintendent of elephants shall take proper steps to protect elephant forests and will not allow unauthorized persons to enter into element forests. Persons killing elephants shall be sentenced to death. Kautilya suggests that the summer season is the best season to capture elephants. That which is twenty years old shall be captured. That which is seven feet (*aratnis*) in height and nine feet (*aratnis*) in length and ten feet (*aratnis*) in circumference and is forty years old is the best. With regard to their distribution, Kautilya says that the best quality of elephant is found in the countries of Kalinga, Anga, Karusa, and the east. The elephants of the middle quality are found in the countries of Saurashtra and Panchajana. Kautilya classifies elephants into four categories in accordance with the training being given to them: that which is tamable, that which is trained for war, that which is trained for riding, that which is rogue elephant.¹¹⁰ Kautilya emphasizes the importance of forests for their multi-functional characteristics and their roles in the political life of the kingdom. He divides forest resources into those which provide species for construction materials and those which provide sizeable materials for the manufacture of war materials. Timber forests, he says, are the source of such materials as are necessary for building forts, chariots, conveyances, and other war materials. On the extreme peripheries of the kingdom, large tracts of land shall be devoted to the planting of forests. An extensive forest shall be planted and developed with one entrance only. Ditches shall be constructed all around the forest to protect illegal infiltration into the forest. Necessary steps shall be taken to enrich the forest resources. The superintendent of forests shall carry on either inside or outside the capital city the manufacturing of all kinds of articles which are necessary for life and for the defence of forts. Forests shall also be used to denote boundaries. They shall also be used in times of war by advancing army to attack in the rear of the enemy's territory.¹¹¹

7 Role of Communication

One of the essential elements of the state involves the accessibility of its various regions and areas—and of the state itself—to people and ideas. Movement is essential to the political organization of the state and to the maintenance of this organization (Alexander 1957, p. 41). Communication or Gottman's (1952, p. 515) 'circulation' is a word used to denote the flow of people, armies, materials, goods, messages, and ideas across the space open to man's activities. Communication is a means of overcoming the barriers and cleavages, sustaining expansion of territories and their integration, also.

The *Arthashastra* is very clear about communication's relevance in the life of the kingdom. Kautilya considers that the territorial growth of the kingdom depends upon the development of the lines of communication. According to him, there are two important aspects of it: one is the incorporation and amalgamation of new territories which is done by the movement of powerful people which leads to the subjugation of rival people and the amalgamation of territory, resulting in political control over the territory, and the second is the movement of people and the spreading of settlements, resulting in the colonization of the territory. Kautilya points out that the evolution of the capital, as the royal seat, takes its shape either within the very 'potential area', or in the vicinity of this area. It is on the construction of roads of traffic that the evolution of the capital city takes place. Once a capital is founded, the king engages himself in the construction of the lines of communication. The areal expansion of the 'potential area' gradually takes place along with the development of the lines of communication.

Kautilya was very much conscious and aware also, with regard to the relevance and significance of the road network, particularly, in terms of their penetration into unknown areas. He seems to have felt that territorial penetration through the roads into unknown and new areas simply reflected the degree of evolution of a society in a way as to make the state capable of taking part in the decision-making process. He makes it very clear that the roads of traffic bring together people of different regions closer to one another, including the people of different origin to a common understanding in a way as to make the kingdom more cohesive.¹¹²

Kautilya urges upon the king that he should try to develop roads of traffic on all the quarters of the boundary of the kingdom, so that the movement of armies and spies from one place to another could be regulated easily. He says that the construction will facilitate the flow of weapons, chariots, armies, and strategic animals to the battlefields in times of war and crisis. The roadways are a means to over-reach an enemy army, attempting to invade the kingdom. Kautilya says that the king and his men must be cautious, while constructing roads on all the quarters of the boundary of the kingdom. He says preference should be given to the plain areas because the construction is easier, but at the same time, it is difficult to construct roads in the mountainous regions because of rocky tracts, ruggedness, and unevenness. The movement on the mountainous tracts is not smooth, and in that case, the possibility of losing the war is great. He says that all the vulnerable passes in the mountainous regions must be connected with one another so as to give more strategic character to the roads constructed on the mountains. He also points out that different types of roads with different width shall be constructed for chariots, armies, and for the movement of weapons, armies, and people, also. Kautilya cautions that the frontier roads should be better built so that it can sustain the impacts of natural and unnatural calamities.¹¹³

Kautilya emphasizes the vital role of the roads of traffic for internal economic integration (*arthik-setubandha*).¹¹⁴ He says that the roads shall be constructed leading to mining areas to facilitate the movement of materials and minerals, such as gold and other precious stones to the treasury.¹¹⁵ He also points out that the roads that lead to mining centres must be connected with the manufacturing centres and with those of populated parts of the kingdom.¹¹⁶ Roads of traffic shall be constructed leading to the storehouse (koshthagara) so that the movement of food grains from the agricultural lands can be regulated without obstruction.¹¹⁷ Forest roads shall be constructed in order to facilitate the collection of forest species and strategic animals like the horses and elephants.¹¹⁸ Similarly, he asks for the construction of roads of traffic for the pasture grounds. Each road shall be placed under the supervision of a superintendent whose main work shall be to maintain the traffic and to provide security.¹¹⁹

Kautilya is of the opinion that for the success of the sixfold policy, the king should ensure easy movement and mobility between the states, and that is only possible through the construction of roads of traffic across the kingdom and also on the four corners of the kingdom..¹²⁰ He urges the conqueror to develop uninterrupted roads of traffic in the rear of his territory so as to help his friend (*mitra*) in times of war. These roads will interrupt the marching of the enemy troops, provided the conqueror and his friends decide to deploy their troops. Such roads of traffic at the rear of the kingdom will also help in the development of political relationships between the kingdoms. These roads will also put the Madhyama King and the Neutral King at an

advantageous position, enabling them to help both the conqueror and his immediate enemy. $^{\rm 121}$

Kautilya points out that the economic relationship between states largely depends upon the roads of traffic, constructed for the purpose. This helps in the development of commercial organization between the states through which these roads traverse.¹²²

8 Geographic Features and Inter-state Relations

'The surface of the earth is partitioned in a great many ways: politically and physically and economically and culturally. The political divisions are the *raison d'etre* of international relations; the variety of the different parts of the earth's surface is the *raison d'etre* of geography ... the belief is, therefore, very old and quite natural that geography is a potent factor in international relations' (Gottman 1951, p. 153).

To Kautilya, the inter-state relations very much depend upon certain geographical features and factors, and the foremost is being the relief and water bodies. He acknowledges that multiplicity of relief features along political boundaries is a constant source of conflict and instability, and the tendency is to incorporate more and more areas. And, if there happens to occur plains without fortifications, the possibility of invasion is more. He says whosoever builds fortifications on strategically best-fitted ground is able to maintain a balance of relationship. Stability or instability along the boundary is a factor determining the mutual relationship between the two countries.¹²³ Similarly, when a river flows across the territories of the behaviour of the upper riparian kingdom which obstructs the natural flow of the water to the lower riparian kingdom. On the other hand, if the neighbours who are not at a good term, they defy the rules, prescribed for the navigation.¹²⁴ Presence of potential forests and pasture lands in one's territory is another source/factor for mutual disharmony.¹²⁵

To Kautilya, the roads are a means to acquire friendship on the one hand and to mobilise armies along the boundaries in times of emergency on the other hand. The relations that develop between the kingdoms are a product of the network of roads. The success of the military conquest against a common enemy is a clear manifestation of acquisition of territories by means of efficient networks of roads. He observes that economic relations with the countries and kingdoms of the south depend on the land routes that lead to the south from the north and the east. Kautilya also favours mobility among kingdoms across the navigable rivers, and for that, he asks for the development of the port towns along the rivers. The use of one's port for commercial purpose is another factor for inter-state relations.¹²⁶

The distribution of resources, particularly, those resources, which have immense strategic relevance and importance in the life of the kingdom, is also a determining geographical factor in inter-state relations, says Kautilya. He points out that whoever has possessed resources takes the risk of going to war and has the capacity to participate in the decision-making process. A kingdom, poor in resources, must not take the risk of going to war, rather he must get himself aligned with a powerful king.¹²⁷

Kautilya says that ill-defined boundaries between the two kingdoms, on account of inaccessibility of the region, are a potential factor for conflict between them. Problems usually arise out of the question of settling the points of locations to be used in the boundary demarcation. He observes that two neighbours cannot come to an understanding and consensus for an amicable resolution to the boundary conflict between them. He says that whoever is powerful extends his territorial limit.¹²⁸

To Kautilya, the relations between the neighbouring kingdoms also depend on the quality of people of their respective territories. If a king thinks that his country is full of good soldiers and fighters, but reverse is the case with his enemy and whose people are impoverished and oppressed and not loyal to their king, then the conqueror should march against his neighbour, who is his enemy. The impoverished and oppressed people of the neighbour/enemy shall be induced to immigrate to the conqueror's territory. The conqueror must construct strategic fortifications to defend the populous centres. Dispersal of population centres is a source of constant danger between the two neighbours, because, Kautilya thinks, dispersal allows infiltration and invasion, also. Thus, he finds that the quality of population and its geographical distributions are the two most factors, largely affecting the relations between the two neighbours.¹²⁹

The geographical distribution of power centres is another determining factor governing geographical patterns of inter-state relations. Kautilya is known for his concept of equilibrium of the power system. To him, there are two assumptions at the base of the concept equilibrium: (i) the elements to be balanced are necessary for society or are entitled to exist and (ii) without a state of equilibrium among the elements, one element may get ascendancy over the others, encroach upon their interests and rights and ultimately destroy them. It is the purpose of all such equilibrium to maintain stability of the system without destroying the multiplicity of the element composing it with this in mind. Kautilya says that the conqueror in absence of equals should combine with the number of inferior kings who are pure and enthusiastic, and who can oppose the enemy, and to whom his enemy's army and intrigue cannot reach.¹³⁰ When a king proposes peace to another king of equal power on the condition of receiving the help of the latter's army strong enough to oppose an enemy's army, or to guard the front, centre, and rear of his territories, or to help his friend (mitra), or to protect any other wild tracks of his territory in return for the payment of a share in the profit proportionately equal to the strength of the army supplied, the latter may accept the terms if the proposer is of good intention.¹³¹

Kautilya points out that it is better to march combined with two kings of equal power against a superior king, that for a combined strength with a superior power, allies appear to move, catch hold of, by his superior, whereas in marching with the two kings of equal power and strength, the same will be the result, and the conqueror, then, in combine with the other king must create a condition for stability in the region. He urges upon the conqueror not to allow any king to gain ascendancy over him and his organization. Since the goal is regional stability together with the preservation of all the elements of the system, the equilibrium must aim at preventing from gaining ascendancy over the others. The means, employed to carry on their opposing tendencies up to the point, where the tendency of one is not so strong as to overcome the tendency of others, but strong enough to prevent the others from overcoming it.¹³²

Kautilya was, perhaps, the first ancient Indian thinker to have provided a systematic presentation of the concept of Council of State or the Mandala theory with regard to the inter-state relations. The doctrine of Mandala refers to a circle with an organic power system. It means carrying out a policy and following a tactic with the object of forming an alignment of powers of the circle of states, which will result in maximum advantage to the policy-framing states/kingdoms. The Mandala doctrine or for that matter, the concept of Council of States is regarded as the equivalent of the theory of balance of power, which is truly geographic in nature as it emphasizes the location and the spatial distribution of states on the earth's surface. An important aspect of the Mandala doctrine is that of the occurrence of friendly and unfriendly character of surrounding states or kingdoms in the circle. It is said that the Mandala doctrine was the guiding principle in ancient India with regard to the conduct of inter-state relations. Some aspects of Kautilya's model of the pattern of distribution of kingdoms-friendly and unfriendly and/or enemy have been mentioned above under the caption: Spatial Factors of the Kingdom: Location (page: 15 of the present paper, and Book: VI: Ch: II: Sloka: 259: page: 327. of the Arthasastra).

However, further aspects, concerning the formation of the council of states, according to Kautilya, are as follows.

The conqueror, his friend (*mitra*), and his friend's friend are the three primary kings, constituting a circle of states. As, each of these three kings possesses the five elements of sovereignty such as the minister, the country, the fort, the treasury, the army—a circle of states consisting of eighteen elements, including the three kings themselves. Thus, it needs no commentary to understand that the circle of states having the enemy of the conqueror, the Madhyama King, or the Neutral King at the centre of each of the three circles is geographically different from that of the conqueror in their areal location and alignment. Thus, there are four primary circles of states: the conqueror's circle of states, the enemy's circle of states, the Madhyama King's circle, and the neutral king's circle of states. Thus, there are twelve kings and sixty elements of sovereignty and seventy-two elements of states.¹³³

Each of the twelve primary kings shall have their elements of sovereignty, power, and end. Strength is power, and happiness is the end. The possession of power and happiness in a greater degree makes a king superior to another, in a less degree inferior and in an equal degree equal, says Kautilya. He advises that the king shall always endeavour to augment his own power and elevate his happiness. The success of the council of states depends upon the strength and power.¹³⁴

According to Kautilya, a powerful king with all the factors of powerhood (defensive fortifications, population, communications, and resources) can over-reach his enemies. A skilful king by virtue of his knowledge and methods of intrigue, espionage, conciliation, and other strategic means can maintain his supremacy. He says that a larger gain, as continuous as productive seeds, is better than an immediate small gain. Kautilya observes that a wicked king will fall in the hands of the conqueror because his subjects are dissatisfied with him because of his unrighteous character. That a neutral king who desires to put down his enemy also wishes to help the conqueror when the latter with his poor resources is attacked by his enemy. The conqueror may in times act as a Madhyama King, and for time being, he may allow his enemy to grow in strength. Throwing the circumference of the circle beyond his friend's territory and making the kings of those states as spokes of that circle, the conqueror shall make himself the nave of that circle, says Kautilya.¹³⁵

Kautilya identifies peace, war, neutrality, marching, alliance, and making peace with one and waging war with another are the six forms of policy. These six forms of policy, according to him, determine the inter-state relations. Kautilya says: agreement with pledge is peace, offensive operation is war, marinating distance is neutrality, making preparations is marching, seeking the protection of another is alliance, and making peace with one and waging war with another is double policy (*dvaidhibhava*). He says whoever is inferior shall make peace with the conqueror, whoever is superior shall wage war, and whoever thinks that no one can hurt him, nor he is strong enough to destroy his enemy, shall observe neutrality. He goes on to say that whoever is possessed of necessary means shall march against his enemy, whoever is devoid of necessary strength to defend himself shall seek the protection of another, and whoever thinks that help is necessary to work and an end shall make peace with one and wage war with another. These are the six policy.¹³⁶

Of these, a wise king shall observe that form of policy, which in his opinion, will enable him to build forts, to construct buildings and commercial roads, to open new plantations and villages, to exploit mines and timber, and elephant forests, and at the same time, to harass similar works of his enemy. He says that the king can neglect the progress of his enemy if he finds himself growing both in quality and quantity than his enemy. If any of the two kings is hostile to each other, find the time of achieving the results of the respective works to be equal, they shall make peace with one another. Kautilya says there are three aspects of position, namely deterioration, stagnation, and progress. No king shall keep that form of policy which causes him the loss of profit from his own works, but there is no such loss of his enemy, for it is known as deterioration. Whoever thinks that in the course of time his loss will be less than his acquisition as compared to his enemy, he may neglect his temporary deterioration. That position in which there is no progress and no retrogression is stagnation. Whoever thinks his stagnancy to be of shorter duration, and his prosperity in the long run to be greater than his enemy, may neglect his temporary stagnation. Kautilya is confident that the king in the circle of states who adopts the sixfold policy will be able to take the state first from deterioration to stagnation and latter to progress.137

9 Conclusion

The study reveals certain salient features with regard to Kautilya's approach to interpret the spatial conditions and requirement of a state (kingdom herein), pertaining to politico- geographical heritage of ancient India. Firstly, his ideas of a state (kingdom, he conceived) are quite expressive territorially and geographically also, because to him, no territory deserves the name of a kingdom unless it is full of people and controlled by an agglomeration of power with absolute authority over the territory. This very statement about the definition of a state to an extent 'resembles' the modern definition of a state. A state is a territorial manifestation of sovereignty (*rajtava*) The *Arthashastra* mentions and identifies the six elements of sovereignty: the king, the minister, the country, the fort, the treasury, the army, and the friend. These seven elements of sovereignty constitute the seven different limbs of a state and possess different qualities. All these seven elements of sovereignty work together: they are like spokes of a wheel.

However, the elements like the king, the minister, the treasury, and army may be grouped as consisting of a government—one of the elements of sovereignty of a modern state. Similarly, the elements like the country and the fort of the *Arthashastra* may be conceived of as reflecting the modern elements of sovereignty: territory and population. However, the element, friend (*mitra*) in the *Arthashastra* has no equal in the modern concept of sovereignty, but it seems that the element friend in ancient India was a necessity for the state to be recognized by the outside world, and this fact in the modern context assures the reason for the existence of the state. Again, there is an inherent resemblance between the relevance of friend as an element of sovereignty in the ancient Indian classical concept of a state and the modern concept of *raison d'etre* of a state.

Kautilya believes in the contractual origin of a state, because a state, according to him, takes shape only when there is a contract between the ruler and the ruled, i.e. a type of consensus between the king and the people of the territory. And thus, Kautilya does not believe in the divine and/or organic origin of a state. His contractual concept of the origin of a state equals, to an extent, the modern concept with regard to the internal justification of the reason of existence of a state, i.e. the state is first required to justify its relevance in the eyes of its own people, and unless the people express their faith and confidence in the state, it cannot exist.

Kautilya identifies the geographical distance between the capital city core area and the peripheries of the kingdom as the possible factor for centrifugal tendencies vis-avis secessionist movement, causing the disintegration of the kingdom. So he urged the king to construct roads of traffic in all quarters of the kingdom. The foremost function of a state, apart from other functions, according to him, is to bring together the diverse and captured territories under a single dominant structure and organization. This is a functional concept of classical ancient Indian political geography that Kautilya is believed to have developed in the fourth century BCE. An integrated kingdom, he thinks, has the necessary appeal to command the loyalty and allegiance of its people and is the secret of the raison d'etre of the kingdom. However, the loyalty of the people of all the caste groups largely depends upon the moral character and wisdom of the king. It is the king, says Kautilya, around whom revolves the idea of the kingdom kinship was the 'political idea' of the ancient classical political geography of a state, which has a modern equivalence in the concept of 'state idea'.

Richard Hartshorne's philosophy with regard to the function of a state that he presented in his paper, entitled: 'Functional Approach in Political Geography', which

was published in the *Annals of the Association of American Geographers*, in 1950, closely resembles the Kautilyan model of the state's function.

Secondly, the Arthashastra offers a conceptual framework for the territorial growth of the kingdom, i.e. each state (herein kingdom) grows about a definite area may be the germinal area or the core area where is situated the royal palace, and this is the territory that contains the strategic potentialities and lies the capital city of the kingdom. This is the area necessarily situated on the threshold of the roads, where the supply of perennial water is fully assured and which is conducive to the growth of grains or other productive crops. Most of the traditional books of political geography give credit to Derwent S. Whittlesey for having developed the concept of the core area—the area about which grows the state system in his book: The Earth and the State (1939), but the present study reveals that thousands years back in India, a similar concept was developed. Since, the treatise was not interpreted in that perspective by the western scholars that the 'germinal' idea of Kautilya has remained unknown. Similarly, Kautilya's concept of the territorial growth of the kingdom has also remained unnoticed to the western scholars; however, towards the end of the nineteenth century, a German zoologist-turned geographer, Friedrich Ratzel, had developed a similar model, entitled: ' The Territorial Growth of States', published in Scottish Geographical Magazine (1896). But, the only difference between Kautilya and Friedrich Ratzel in this perspective is that the former framed his model in terms of 'the king-people contract', while latter framed his model in terms of the organic growth of the state, conceiving the state as an 'organism'.

The idea of the capital city that the Arthashastra reveals is equally modern. A capital city is defined as the seat of the sovereignty (samudaya sthanam), and the location of a capital city is a manifestation of a 'compromise' between the strategic consideration for defence from outside attack and those of nodality for internal space relationship, particularly, with the peripheral areas of the kingdom. Location on the bank of a river, or on the confluence of rivers, is the most favoured site for a capital city. The capital city in the Kautilyan treatise is the primary city in the kingdom, both in terms of population size and territorial size, and at the same time, it represents or embodies the spirit of religion. The Arthashastra also mentions a 'frontier' capital to be situated on the periphery of the kingdom, particularly, where the kingdom fronts an enemy. The concept of 'frontier' capital has a close resemble with the concept of 'forward' capital, developed by V. Cornish in his book: 'The Great Capitals: A Historical Geography', in 1923, and the concept of 'head link' capital, developed by O. H. K. Spate, in one of his papers: 'Factors in the Development of Capital Cities', published in Geographical Review in 1942. Similarly, Kautilya's model of royal capital at the centre of 'germinal' area and a capital at the frontier of the kingdom again come closer to the modern functional concept of 'divided capitals' that one performs the administrative functions, while the other performs the 'defence or strategic' functions. Quite a good number of Afro-Asian and Pacific countries have divided capitals, arising out of their administrative and defence needs.

Thirdly, the definition of boundary in the *Arthashastra*: 'that which marks the limit of the sovereignty (*rajtava*)', in no way, does appear to be thousand years old, rather it is most modern, in terms of contemporary epistemology of boundary. Ladis

K. D. Kristof, in his paper: 'The Nature of Frontiers and Boundaries', published in the Annals of the Association of American Geographers, in 1959, also gives a definition of boundary: that which indicates certain well-established limits, and that necessarily resembles the definition of Kautilya. To make the limit of the sovereignty more precise, Kautilya recommends strong boundary defences with strong fortification on sites naturally best-fitted for the purpose. Though the Arthashastra strongly favours physical boundaries, with more emphasis on mountain and river boundaries and artificially drawn boundaries, but there is an implied mention of 'caste' boundaries within the kingdom and outside with other kingdoms, particularly, when there is presence and/or of the people of inferior quality and of low birth within or outside. This, very concept of 'caste' boundary that the Arthashastra mentions, reflects a 'cultural' approach of Kautilya to boundary definition and classification and is epistemologically very close to the concept of 'anthropo-geographic' boundary and/or 'subsequent' boundary, of genetic category, that Richard Hartshorne proposed in his paper: 'Suggestions on the Terminology of Political Boundaries', published in Annals of the Association of American Geographers, in 1936.

Fourthly, Kautilya favours a perennial river location for the kingdom, because such a location provides administrative, commercial and strategic, and physical desirability to the kingdom, while a complete mountainous location is not suitable and desirable for administration. However, he shows his preference to such a physical location in which the extent of the kingdom includes both a river-plain location and a mountainous location together, i.e. the territory of the kingdom well extends beyond the mountains over the plains. A perennial river location is also suitable in terms of rainfall. The river is perennial because the valley and/or the area receive more rainfall than non-perennial and desert locations. Kautilya prefers a small size for a kingdom because it provides greater physical homogeneity, rather than a large-size kingdom. A small-size kingdom can be defended, protected and offers a conducive conditions for the development of road networks, while it is difficult to construct roads in a large-size kingdom, and such a size creates problems for administration, but a large size is an asset in terms of various kinds of resources, including forests and strategic animals. Kautilya urges the king to make friendship with a king who possesses a large size, for it can provide resources and men, both at the time of calamities. A circular and/or a compact shape for the kingdom is a necessity for it makes it easier to keep watch on all the four corners of the kingdom, besides, marinating the internal coherence.

Fifthly, Kautilya's view on the relative importance of relief, water bodies, and climate in the political geography of a kingdom is not less relevant than the modern views on them. The *Arthashastra*, believed to be compiled in the fourth century B.C. is full of praise for mountains, as the only strong criteria for the boundary definition and fortifications, for they are the only relief features which can provide protection and defence to the kingdom. However, in terms of sustainability and growth, a plain with a river location is more preferred to a mountain. A river-plain location with mountains on the peripheries is, perhaps, the best, according to Kautilya. A plain is conducive to the growth of crops and grains and is highly desirable for population distribution and development of settlements. It is conducive for the construction of

roads of traffic. But, a plain without mountains on the peripheries is a source of weakness, because it soon falls to the marching army of the enemy. Kautilya favours a river regime, particularly, a navigable river regime, because it is a potential factor for political cohesion as it allows linkages with other areas of the kingdom. Moreover, a perennial river offers greater flexibility in terms of navigation vis-à-vis trade and commerce within and outside the kingdom. A potential rainfall regime according to Kautilya offers greater flexibility and desirability in terms of the productivity of crops and grains that adds strength to the kingdom and makes the kingdom stronger to face emergency and calamities.

Sixthly, to Kautilya, no territory can deserve to be called a kingdom, unless it is full of population, because the identity of the kingdom depends on the population who inhabits it. He favours a young large population on which depends various kinds of works of the kingdom both during peace and war. He prefers male population to female population, because men work in the field at the time of peace and in the battle fields during wars, which the females cannot, but Kautilya never attempts to downsize the relative importance of the females in his Arthasastra. The successful operation of a sixfold policy: 'peace, war, neutrality, marching, alliance, and making peace with one and waging war with another', depends on a character-bound homogenous population. An impoverished population cannot operate a sixfold policy because it is not character-bound, it is rather greedy, and it may side with the enemy at the time of calamities or wars. A thickly populated country is preferred to a depopulated country, which is always a source of danger. But, at the same time, he favours a 'dispersed' distribution of population from a defence point of view. One of the demographic ideas of Kautilya is very close to the modern idea of sustainability: the Arthashastra prefers a relative balance with regard to the use of physical resources, so that the resources cannot deplete, and for that, a balance between the number of population and the available resource base is maintained. Kautilya, however, prefers forced migration of the impoverished population to colonize new territories.

Seventhly, to Kautilya, resources are a means to acquire superiority over the others, and for the successful operation of the sixfold policy (participation in the decisionmaking process), king must ensure that his territory is rich in resources, for resources are the source and/or element of powerhood. The kingdom, which is rich in resources overreaches its enemies, but the kingdom poor in resources or devoid of resources, falls victim to aggression and invasion and is finally incorporated in the enemy territory. He, therefore, urges the king to make friendship with a king whose territory is rich in resources. He emphasizes mineral resources as the possible sources for treasury, and manufacturing of weapons, and other materials needed for constructional works. Nevertheless, the Arthasastra also emphasizes forest resources, being multisources of various materials, including timber and other precious species, which are used in preparing war materials, particularly, chariots. Forests are sources of strategic animals like horses, camels, and elephants used in the battle fields. He emphasizes the maintenance of forest, and for that, a superintendent is to be appointed. Forest in the peripheries of the kingdom shall be used for boundary demarcation. Kautilya's view that resources are a means to acquire power and happiness finds its logical expression in contemporary power games vis-à-vis economic potentials. It is for the control of resources that states in the modern world compete with each other. And, it was also true in ancient India, that is why, the *Arthashastra* provides an elaboration of it. Present world emphasizes expansion and maintenance of forests, as did ancient India thousands of years back. However, forests no longer function as political divides, as they used to be in the historic past and the recent past as well.

Eighthly, Kautilya considers that the territorial growth of a country or a kingdom depends upon the road networks. He identifies two important dimensions of the roads: one is concerned with the incorporation and aggrandizement of new territories, their colonization, and migration of the people to the newer areas/territories, and the other is concerned with the facilitating movement of people and spreading of settlements. It is through the roads of traffic that the armies suppress revolts in the peripheries. Roads are the arteries of the kingdom. The contractual origin of the kingdom depends on the roads of traffic, which bring together different regions, people of different origin, and castes, and the king closer to one another, so as to strengthen the bond of contract between them. The military success largely depends on the roads of traffic, constructed in the peripheries of the kingdom, fronting the enemies. It is through constructing the roads of traffic, one reaches to resource-potential areas, says Kautilya, and from these areas, the minerals and other materials are transported to manufacturing centres. The movements of food grains from the areas of production to the populated areas depend on the communication lines. The roads of traffic in the Arthasastra have been shown as an index of power and strength. One who possesses roads of traffic is sure to become the master in the 'council of states', says Kautilya. Thus, there is no basic fundamental difference between Kautilya's geopolitical view of roads of traffic and the modern concept of political significance of communication lines, rather Kautilya's view appears to be much ahead of his time-say even more than thousands of years?

Lastly, while explaining the geography of inter-state relations, Kautilya identifies the certain physical factors, such as the location, mountains, perennial rivers, and water bodies, distribution of resources, and forests, quality of people and their distribution, and the roads of traffic, as being the most potent factors, deciding mutual relationships between the countries and/or kingdoms. To him, the location of the kingdom in the council of states and/or *mandala* is, perhaps, the most important factor governing the policy-decision towards the neighbouring kingdoms. The presence of mountains between the kingdoms or a river, making a boundary between the kingdoms, is the key features that often cause tension and conflict in the council of states and between the states. The occurrence of resources in different areas of the kingdom(s) is a potential factor for conflicts between the kingdoms, because each kingdom strives to control the resources, and in doing so, it gets involved in conflict and war. The quality of population is another factor that involves inter-state relations. The presence of concentration of impoverished populations in the peripheries of the kingdom or on either sides of the boundary often leads to confusion and tension between the kingdoms, sharing a common boundary. The roads of traffic are a means to acquire friendship on the one hand and to march the army into enemy's territory.

Kautilya is believed to have developed the concept of balance of power. His concept of council of states, or Mandala theory, necessarily deals with the distribution of the power system: 'the king, possessing good character, is the fountain of policy, is the conqueror. The king who is situated anywhere on the circumference of the conqueror's territory is the enemy. The king who is likewise situated close to the enemy but separated from the conqueror only by the enemy is the friend of the conqueror, and the sequence is repeated: rearward enemy, rearward friend, an ally of rearward enemy, and an ally of rearward friend and, then, distant kingdoms: Madhyama King and the Neutral King...'. This spatial arrangement of kingdoms in the council of states (kingdoms), according to Kautilya, reflects a state of political equilibrium vis-à-vis the sixfold policy. The council of states, or Mandala doctrine, that he developed in his treatise inherently represents or manifests four different kinds of external relations of the kingdom: territorial, political, strategic, and economic, which Richard Hartshorne in his paper: 'Functional Approach in Political Geography', published in the Annals of the Association of the American Geographers in 1950, expressed and discussed as external functions of the state area.

To sum up, it can be said that the politico-geographic heritage that Kautilya founded in the fourth century B.C. was highly applied and functional in nature and revealed a little bit 'possibilist' trend, because he was conscious of the capability of mankind, and for that matter, the 'king', and by urging him to make the right choices with regard to maintaining and protecting his kingdom, he gives a 'possibilist' explanation. He urges the king to act within the constraints of nature and be aware, both of its limitations and of the possibilities. Indian geography can claim to have laid down the base of the 'possibilist thinking', thousands of years before the French *vidalien* school of geographers had developed the concept, in the first-half of the twentieth century. Nevertheless, this rich heritage of classical Indian philosophy of political geography has remained unknown to the world of geographical literatures.

Kautilya's *Arthashastra* appears to be a blend of theoretical explanation and remedial explanation, dealing with the formulation of empirical generalizations, concerning the techniques of managing the state affairs, on the one hand, and the application of 'geographic' concepts to the study of practical political problems of the state affairs, on the other hand.

Notes

References, pertaining to various politico-geographical concepts of Kautilya, have been obtained from, R. Shamasastry's: *Kautilya's Arthasastra*, published in XV Books, which altogether contain 429 Slokas. Each Book and Sloka have been carefully studied for the purpose. It is the only authentic source, available in English, in India.

- 1. Book. III. Ch. IV. Sl. 402. p. 486.
- 2. Book. I. Ch. VII. Sl. 13. p.13.
- 3. Book. VI. Ch. IV. Sl. 256. P.320.
- 4. Book. VII. Ch. V. Sl. 296. p.363.
- 5. Book. II. Ch. I. Sl. 47. p. 52.

- 6. Book. II. Ch. I. Sl. 48. p.53.
- 7. Book. I. Ch. VII. Sl. 13. p. 14.
- 8. Book. VI. Ch. I. Sl. 256. p.319.
- 9. Book. I. Ch. IX. Sl. 15. p.16.
- 10. Book. V. Ch. VI. Sl. 253. p.316.
- 11. Book. VI. Ch. I. Sl. 256. p.320.
- 12. Book. II. Ch. I. Sl. 46. p.51.
- 13. Book. II. Ch. III. Sl. 51. p.57.
- 14. Book. VI. Ch. I. Sl. 256. p. 320.
- 15. Book. VI. Ch. I. Sl. 257. p. 321.
- 16. Book. IX. Ch. II. Sl. 341. p.415.
- 17. Book. VI. Ch.I. Sl. 257. p. 321.
- 18. Book. IX. Ch. III. Sl. 345. p.420.
- 19. Book. VIII. Ch. I. Sl. 321. p.393.
- 20. Book. VII. Ch.XI. Sl. 295. pp. 363–365.
- 21. Book. VII. Ch. V. Sl. 275. p. 342.
- 22. Book. VII. Ch. XIV. Sl. 305. p. 374.
- 23. Book. IX. Ch. I. Sl. 351. p.426.
- 24. Ibid.
- 25. Ibid.
- 26. Ibid.
- 27. Book. III. Ch. I. Sl. 150. pp. 192–193.
- 28. Ibid.
- 29. Book. III. Ch. I. Sl. 46 to 49. pp. 50–50.
- 30. Book. VI. Ch. Sl. 256. p.320.
- 31. Book. VII. Ch. Sl. 294. p. 363.
- 32. Book. II. Ch. III. Sl. 51. p.57.
- 33. Book. VII. Ch. III. Sl. 257. p. 333.
- 34. Book. I. Ch. XV. Sl. 27. p. 31. & Book. I. Ch. XIII. Sl.23. p.26.
- 35. Book. VII. Ch. XIV. Sl. 305. p. 374.
- 36. Book. II. Ch. II. Sl. 51. p.57.
- 37. Ibid.
- 38. Ibid.
- 39. Book. II. Ch. IV. Sl. 57. p. 62.
- 40. Ibid.
- 41. Book. II. Ch. VI. Sl. 57. p.62.
- 42. Book. VII. Ch. I. Sl. 263. p.329.
- 43. Book. I. Ch. VII. Sl. 13. p.14.
- 44. Book. V. Ch. II. Sl. 241, p. 302.
- 45. Book. I. Ch. III. Sl. 51. p.56.
- 46. Book. X. Ch I. Sl. 371–373. pp. 447–450.
- 47. Book. VII. Ch. XI. Sl. 295. p.364.
- 48. Book. Ch. I & II. Sl. 46 & 51. pp. 55–58.
- 49. Book.III. Ch. IX. Sl 170. pp.215–216.
- 50. Book. III. Ch. IX. Sl.169. p.214.

Kautilya's Political Geography-Concepts and Ideas ...

- 51. Ibid.
- 52. Book. I. Ch. XV. Sl. 30-32. pp.35-37.
- 53. Book. VI. Ch. II. Sl. 259. pp. 323–324.
- 54. Book. I & XII. Ch. III & V. Sl. 51 & 390. pp. 55 & 472.
- 55. Book. II. Ch. I. Sl. 47. p. 52.
- 56. Book. II. Ch. XXXIV. Sl. 141. p. 177.
- 57. Book. III. Ch. XXVII. Sl.127 & !28. pp. 157-159.
- 58. Book. V. Ch. III. Sl. 247.p. 310.
- 59. Book. X. Ch. I. Sl. 362. p.438.
- 60. Book. VIII. Ch. IV. Sl. 332. p. 403.
- 61. Book. X. Ch. II. Sl. 363. p. 439.
- 62. Ibid.
- 63. Book. II. Ch. III. Sl. 51. p. 56.
- 64. Book. IV. Ch. I. p. 339. p. 413.
- 65. Book. VI. Ch. II. Sl. 259. p. 323.
- 66. Book. VII. Ch. I. Sl. 261. p. 327.
- 67. Book. VII. Ch. X. Sl. 292. p. 361.
- 68. Book. VII. Ch. IX. Sl. 290. p.355.
- 69. Book. VII. Ch. IX. Sl. 289. p. 354.
- 70. Book. Ch. XIV. Sl. 305. p.374.
- 71. Book. II. Ch. III. Sl. 51. p. 57.
- 72. Book. II. Ch. I. Sl. 46. p.50.
- 73. Book. VII. Ch. VI. Sl. 277. p.345.
- 74. Book. VII. Ch. X. Sl. 293. p. 362.
- 75. Book. VII. Ch. XI. Sl. 292. p. 361.
- 76. Book. II. Ch. XIII. Sl. 96. p. 101.
- 77. Book. Ch. IV. Sl. 368. pp. 444–445.
- 78. Book. II. Ch. XXXVI. Sl. 144. p. 182.
- 79. Book. II. Ch. I. Sl. 46. p. 50.
- 80. Book. VII. Ch. XII. Sl. 297. p. 366.
- 81. Book. VII. Ch. XII. Sl. 298. p. 367.
- 82. Book. III. Ch. IX. Sl. 170. pp. 216–217.
- 83. Book. II. Ch. XXVIII. Sl. 128. p. 157.
- 84. Book. VII. Ch. XIV. Sl. 305. p. 374.
- 85. Book. II. Ch. XXIV. Sl. 116. p. 143.
- 86. Book. IX. Ch. I. Sl. 338–340. pp. 412–414.
- 87. Book. VII. Ch. IX. Sl. 288. p.357.
- 88. Book. VII. Ch. IX. Sl. 295. p.364.
- 89. Book. VIII. Ch. III. Sl. 326. p. 398.
- 90. Book. VII. Ch. IX. Sl. 296. pp. 363-364.
- 91. Ibid.
- 92. Book. IX. Ch. III. Sl. 346. p.421.
- 93. Book. III. Ch. II. Sl. 153. p.194.
- 94. Book. XIII. Ch. I. Sl. 394. p. 477.
- 95. Ibid.

- 96. Book. VII. Ch. I. Sl. 264. p. 330.
- 97. Ibid.
- 98. Book. II. Ch. I. Sl. 46. p. 51.
- 99. Book. II. Ch. XIII & XXIV. Sl. 89 & 116. pp. 105 & 143.
- 100. Book. VII. Ch. XIII. Sl. 300.p. 360 & Book. VIII. Ch. II. Sl. 324. p. 396.
- 101. Book. VII. Ch. XIV. Sl. 305. p. 375.
- 102. Book. II. Ch. XXIV. Sl. 116. p. 143.
- 103. Book. II. Ch. XXIV. Sl. 117. pp. 144–145.
- 104. Book. III. Ch. XIV. Sl. 305. p. 375.
- 105. Book. II. Ch. XV. Sl. 94. pp. 113–115. & Book. VIII. Ch. V. Sl. 335.p.407.
- 106. Book. II. Ch. XVIII. Sl. 102. p. 105.
- 107. Book. II. Ch. XIII. Sl. 86. pp. 101–103.& Book.II. Ch. XI. Sl. 84. p. 98.
- 108. Book. II. Ch. XXIII. Sl. 114. pp. 140–141.
- 109. Book. II. Ch. XXX. Sl. 133. pp. 166–167.
- 110. Book. II. Ch. XXXI & XXXII. Sl. 136 & 138. pp. 170–172.
- 111. Book. II. Ch. XVII. Sl. 100. pp. 122–123.
- 112. Book. VII. Ch. XI. Sl. 294. p. 363.
- 113. Book. II. Ch. III. Sl 52. pp. 57–58. Book.II. Ch.IV. Sl. 56. pp. 60–61.
- 114. Book. II. Ch. XII. Sl. 82. p. 95.
- 115. Book. II. Ch. XIII. Sl. 87. p. 103.
- 116. Book. II. Ch. XII. Sl. 85. p. 92.
- 117. Book. II. Ch. XV. Sl. 95. p. 113.
- 118. Book. II. Ch. XVII. Sl. 100. pp. 121–123.
- 119. Book. II. Ch. XVI. Sl. 99. p. 119.
- 120. Book. VII. Ch. I. Sl. 362. pp. 328–329.
- 121. Book. VII. Sl. XIII. Sl. 300. pp. 369–370.
- 122. Book. II. Ch. XXVII. Sl. 127. p.157.
- 123. Book. II. Ch. III. Sl. 51. pp. 56–57.
- 124. Book. III. Ch. IX. Sl. 170. p. 260.
- 125. Book. Ch. XVII. Sl. 100. p. 101.
- 126. Book. III. Ch. XIV. Sl. 305. p. 374. & Ch. XII. Sl. 299. p. 305.
- 127. Book. IX. Ch. I. Sl. 340. p. 414.
- 128. Book. III. Ch. IX. Sl. 169. p. 214.
- 129. Book. III. Ch. V. Sl. 274. pp. 341–342.
- 130. Book. VII. Ch. XV. Sl. 307. p. 376.
- 131. Book. VII. Ch. VII. Sl. 282. p. 350.
- 132. Book. VII. Ch. V. Sl. 276. p. 343.
- 133. Book. VI. Ch. II. Sl. 259. pp. 322-324.
- 134. Book. VI. Ch. II. Sl. 260. pp. 324–325.
- 135. Ibid.
- 136. Book. III. Ch. I. Sl. 261. pp. 327–328.
- 137. Book. VII. Ch. I. Sl. 262. p. 329.

Ch: Chapter. Sl.: Sloka. p.: Page. pp.: Pages.

References

Alexander LM (1957) World political pattern. John Murray, London

Dikshitar VRR (1931–1932) Arthasastra: re-examined of the culture and the date of the Arthasastra. In: Annals of Bhatnagar Oriental Research Institute, No 13, pp 50–53

Ghosal UN (1945) A history of ancient Indian public life, vol 2. Calcutta

Gottmann J (1951) Geography and international relations. World Politics 3(2):153-173

- Gottmann J (1952) The political partitioning of our world: an attempt at analysis. World Politics 4(4):512–519
- Jackson WAD (1964) Nature of the political geographical problems. In: Jackson WAD (ed) Politics and geographic relationships. Prentice-Hall. Inc. Englewood Cliffs. N.J.
- Jacobi H (1918) On the authenticity of Kautilya. Indian Antiquary, No 47, pp 157-158
- Jayaswal KP (1924) Hindu polity. Part II. Butterworth & Co (India) Ltd. Calcutta, pp 212-214
- Johnston H (1929) Two studies in the Arthasastra of Kautilya. J R Soc Great Britain & Ireland, pp 86–87

Majumdar RC (1974) Ancient India. Motilal Banarsidas, Delhi, p 95

Mehta U, Thakur U(1980) Kautilya and his Arthasastra. S. Chand & Co. ltd. New Delhi, pp 3–4 Mookherjee RK (1966) ChandraGupta Maurya and his times. Motilal Banarsidas, Patna, pp 30–31 Pounds NJG (1972) Political geography. McGraw Hill. Book. Co., London

Roychoudhury H (1927) Political history of ancient India. University of Calcutta, Calcutta

Sharma RS (1959) Aspects of political ideas and institutions in ancient India. Motilal Banarsidas, Patna, pp 13–14



Prof. Sudeepta Adhikari (late) (b. 9 Sept.1949-d. 29 Feb. 2020), an alumnus of Patna University, obtained his MA and PhD both in Geography from Patna University, Bihar, India. He had joined Patna Women's College (1976-1980) and B.N. College (1980-2006), before joining as Head of the Post-Graduate Department of Geography, Patna University, and continued until November 2009. Thereafter, he served as Dean, Faculty of Social Sciences (2010-2012), Pro-Vice Chancellor (2013–2014) and Vice Chancellor (2011) of Patna University. His specialization and interest included political geography and geopolitics, and history of geographical thought. A widely travelled scholar, he visited many countries around the world. Professor Adhikari had a large number of publications in reputed national and international journals, and widely acclaimed books including one on geographical thought and another on political geography which are popular among the geography students in India. He was also a Visiting Professor at several universities in India.

Genealogy and Its Role in Matrimony: A Study of *Panji* System of Mithila Region, Bihar (India)



Ravi S. Singh and Sugandh

Abstract Matrimony in Mithila is entirely dependent on the genealogy maintained by the *panji* system. This article intends to highlight how centuries' old regional genealogical record keeping techniques can be a source of information to explore the patterns of migration and marriage decisions. It also details how these patterns help to show interdependence of the cultural practices in shaping the social space. First, there has been an attempt to link genealogy to space in order to present an overview of their interdependence. Second, it discusses the evolution and history of the *panji* system describing information on the *panjikars*. Important genealogical terms have been explained to provide insights into the structure and functions of the panji system. Gotra exogamy and caste endogamy are major determinants of matrimonial decisions in many parts of India including the Mithila region. Third, a comparison of *panji* with other genealogical institutions like that of the *Tallensi* lineage and kulji system is described. Finally, the annual matrimonial gathering, i.e., Saurath sabhagachi has been discussed to explain the role of the panji system in matrimonial decision making. This paper offers a theoretical view on genealogy to its readers and intends to present an insight into how genealogical record keeping, marriage, and space are interrelated and an inseparable cultural phenomenon in the Mithila region of Bihar in India.

Keywords Genealogy \cdot *Kulji* system \cdot *Panji* system \cdot *Panjikars* \cdot *Tallensi* lineage \cdot Matrimony \cdot *sabhagachi*

1 Introduction

The study of genealogy allows one to connect to the history as well as geography that he shares with his ancestors. Along with this, the genealogists play a vital role in the record keeping work. Through their efforts, important details of life are documented which can be a source of information to trace the origin and development

R. S. Singh (Deceased) · Sugandh (🖂)

Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh 221005, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_12

of one's lineage. The ethnic signatures like *panji* records remind us of a long-lived cultural heritage that shows connections among places. *Panji* system is one such genealogical record that has been maintained in the Mithila region since 1326 CE (Jha 1980). It is a vast pool of information about one's lineage and plays an important role in matrimonial decision making within the community. *Panji* record keeping is an ancient practice, functioning as an institution because of the *panjikars*¹. They have devotedly made effort to collect genealogical records from families of Maithil brahmins from all villages of Mithila. Record keeping and providing a document to families to verify the legitimacy of a marriage is one of the remarkable works done by genealogists. Even in the present day, before a marriage takes place, the people of Mithila region strictly follow *kula* verification and kinship rules as mentioned in the *panji* records.

This study is qualitative in nature based on *panji* records and literature. The location map of the study area has been prepared using ArcGIS 10.5 software. The idea has been presented in sections and subsections as; the genealogical approach to geography, the origin and development of *panji*, the prevalent *panji* system among other castes, the comparative study of *panji* with other genealogical institutions, the role of *panji* in Saurath *sabhagachi*², and then the findings and conclusions.

Mithila is known for its rich heritage and culture with strong social networks. The society is bound by *gotra* exogamy, *mool*, and *moolgram* conceptualization which make use of the place of residence of ancestors to maintain genealogy. Mentioning about Mithila plain (Fig. 1), Singh (1971) describes it as a region surrounded by Kosi in the east, Gandak in the west, Ganga in the south, and Himalaya in the north. This paper focuses on part of Mithila region, located between $25^{\circ}28''$ N and $26^{\circ}52''$ N latitude and $84^{\circ}56''$ E and $86^{\circ}46''$ E longitudes in India (Singh and Sugandh 2017). Scholars from different disciplines like sociology and history have conceptualized the ideas about the *panji* system. At the same time, *panji* records have never been a source for connecting space and culture. This paper is an exploratory attempt in studying *panji* records from a geographical perspective. This opens arenas for the geographer's study as it interlinks the imprints of society and its cultural practices to space.

Geography holds a fundamental relation with genealogy and is vital for studying it. Genealogical history is important, but its geography is also significant. Two areas in which genealogy and geography are associated is migration and tourism (Desmond and Barry 2012). Thus, geography and genealogy have an interface with each other. The concept of place is important in genealogy as it brings the idea of where it is being done to where it relates to. In no other part of the world exists a society so widespread, where genealogy from 700 years is present in the same way over such a long period, as it is maintained and written in Mithila. Thus, the map becomes micro geography of life itself (Nash 2002).

Genealogy is supported by documentary evidence. *Panji* literally means a record or register in a written form. In the present context, it refers to genealogical record keeping. The *panji* records were maintained on palm leaves as manuscripts (Fig. 2). In the case of *panji* records, we see that record keeping technique, where one is able to trace his forefathers along with their migration fields followed by marriage. The aim

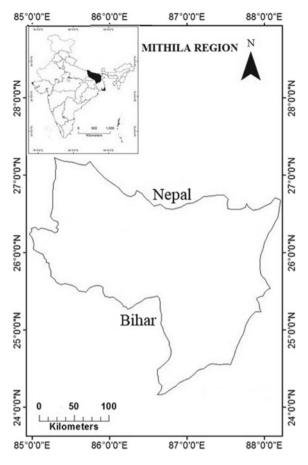


Fig. 1 Location and extent of Mithila region. Source After Grierson (1903)

of the *Panji* system is to gather each person's name and their place of residence. The people honestly provided knowledge about their education, their residence, '*mool-gram*' and their relative's description. Over the years *panjkars* have collected records of migration and other movements (Mishra 1979).

2 Origin and Development of Panji System

The institution of *panji* record keeping was promulgated by Karnāta³ King Harsingh Dev in 1326 CE. However, the *panji* system was the result of the influence of the *kulji* system introduced by King Vallal Sena in Bengal. He divided the *Bengali* brahmins into four sections and other castes into closed endogamous groups. This caste and social organization had its influence in Mithila while he ruled after defeating



Fig. 2 Panji records written on palm leaves. Picture credit: Sugandh

King Nanya Dev. Brahmins had the highest social order in society, and people from other castes wanted to be part of their community. The brahmins pleaded with the king to protect their religious autonomy, identity and also restrict other castes from interference. Since then the practice of genealogical record keeping has started (Jha 1980).

Panjikar or the genealogists are the data collectors who have maintained the tradition of record keeping and providing *siddhant* documents for marriage (Fig. 3). Initially, *panjikars* performed their duties orally and provided *siddhant patra* (a document prepared by the genealogists which provide a verdict for setting marriage



Fig. 3 A Panjikar at work. Picture credit: Sugandh

relations). However, several flaws were identified in this methodology and ultimately King Harsingh Dev ordered to collect data from each house and maintain written records. King Harsingh Deva had organized this practice for all the castes. However only brahmins and kayasthas followed it. Scientifically testing the $16 kulas^4$ to verify whether marriage can be legitimized is a remarkable work done by *panjikars*. Today panjikars verify in the same way and present information to the bride's father about the groom in exchange for fees. The panjikars have even made an effort to include professional and educational information about the grooms along with their pedigree. Panji records contain the birth and marriage entries of each family. Panjikars went on regular tours to register names of male children born in each family during the year (Mishra 1979). People willingly took the initiative to register their family members. It is their responsibility to ensure that there is no incest for up to seventh generation from the father's side and fifth generation from the mother's side. Technological advancement has intruded in the social system and *panji* records are now available in digital form and access to such data has become easier. Nash (2002) mentions that genealogical record keeping is a practice in many parts of the world. There are records regarding birth, death, and marriage of an individual. The genealogies which are followed popularly have rules of genealogical terminology.

In a conversation with one of the renowned *panjikars*, Shaktinandan Jha, we gained further knowledge about a few local terms used in the *panji* records. He also described the history and evolution of the *panji* system which was of great help in this study. The different terms used in the *panji* records are also used in other parts of India. Genealogical terms as used in the *panji* records are explained briefly below.

2.1 Gotra: The Broadest Hierarchy of a Society

Each *gotra originated* after the name of a *rishi* or sage whose disciples followed their teachings. They treated each other as brothers and sisters and marriage among them would be incestuous. The rule of *gotra* exogamy is followed quite rigidly in all parts of India. Slight differences in *gotra* can be seen based on samskaras (Brown 1983). *Gotra* helps to know the genealogy (Fig. 4 and Table 1), which traditionally registers the patrilineal line of descent (Madan 1989). Similarly, all the *gotra* of Maithil brahmins is named patriarchally after their forefathers. There are 20 different *gotra* in Mithila. For example, *Vatsa* was the sage whose disciples are known to belong to *Vatsa gotra*.

Membership of *gotra* is acquired at the time of *upnayan samskar*⁵ by boys and girls during marriage. Before that, she is known to belong to her father's *gotra* (Brown 1983). Twenty *gotra* as mentioned in *panji* are: *Shandilya, Vatsa, Savarn, Kashyap, Parashar, Bhardwaj, Katyayan, Garg, Kaushik, Alambukaksh, Krishnatrey, Gautam, Maudgalya, Vashisht, Kaundidanya, Upmanyu, Kapil, Vishnuvridhi, Tandi and Jatukarna* (Thakur et al. 2009a).

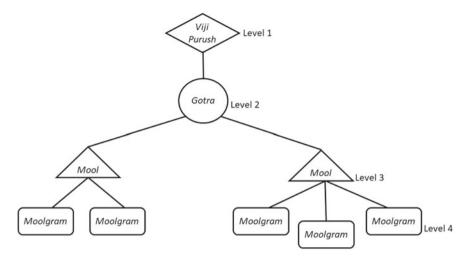


Fig. 4 Diagrammatic representation of genealogical hierarchy (Source Developed by the authors)

2.2 Mool: The Widest Extension of Lineage

Brown (1983) opined that *mool* is a historic, factual agnatic line descending from a known founder. It refers to the place where the oldest known forefather resided. *Mool* is a spatial identity as it is known by the village of residence of the founding father (*viji purush*). For example, *Ganguali mool* was found by Gangadhar Jha of Gangauli village (ibid.). Presently it is difficult to find people living in their *mool* village because of migration. Also, in a number of cases, villages do not even exist or have been renamed at some point in history. One should have sound knowledge of the toponyms to look up a word or spell it or even locate it on a map. Similarly, Lamble (2000) mentioned that Funnen in Denmark is shown in Danish Maps as Fyn. The name of a place does not match that in the *panji* records also. This is due to phonetic rendering and speech corruption.

Mool is further divided into three classes:

- i. 'Atyant Shrestha (First class): Kharauray, Khauaray, Budhbaray, Mararay, Dariharay, Ghusautay, Tisautay, Karamhay, Naraunay, Vbhaniyamay, Hariyamme, Sarisavay, Sodarpuriye
- ii. Dwitiya Shreni (Second class): Gangaulivaar, Pavaulivaar, Kujaulivaar, Alevaar, Vahirvaar, Sakrivaar, Palivaar, Visevaar, Fanevaar, Uchitvaar, Pandulvaar, Kataivaar, Tilaivaar
- iii. *Madhyammul* (Medium class): *Dighve, Belauche, Ekahre, Panchobhe, Valiyase, Jajiwal, Takwaal, Panduye'* (Thakur et al. 2009a).

Table 1 Segregation ofGotra, Mool, and Moolgram	Gotra	Mool	Moolgram
Gotta, moot, and mootgram	A. Shandilya	1. Sarisab	1.1 Khangura
			1.2 Sakri
			1.3 Jonki
		2. Parvapalli	2.1 Pawauli
		3. Khandbala	3.1 Bhaur
		4. Sodarpur	4.1 Sarisab
			4.2 Mani
			4.3 Dighdhundh
			4.4 Tetrihaar
			4.5 Kanhauli
			4.6 Katka
			4.7 Hati
	B. Vatsa	1. Pali	1.1 Mahishi
		2. Hariambh	2.1 Balirajpur
		3. Ghusaut	3.1 Nagwad
		4. Karmaha	4.1 Ruchauli
			4.2 Naruar
			4.3 Behat
			4.4 Tarauni
			4.5 Jhanjharpur
			4.6Analpur
		5. Budhwal	5.1 Gangaura
			5.2 Dumra
			5.3 Pariyambh
	C. Kashyap	1. Khauwaal	1.1 Simwarvar
			1.2 Marajpur
			1.3 Mahwa
		2. Sakradhi	2.1 Parhat
			2.2 Lohna
		3. Darihara	3.1 Ratauli
		4. Mandar	4.1 Sihauli
			4.2 Rajauri
			4.3 Kansam
			4.4 Patnuka
		5. Valiyas	5.1 Mandari
	D. Parashar	1. Narun	1.1 Sulhani
			1.2 Pudhe
			(continued)

Table 1 (continued)

Gotra	Mool	Moolgram
		1.3 Tripurauli
	2. Surgan	2.1 Loam
E. Bharadwaj	1. Ekhara	1.1 Rupauli
		1.2 Kanhauli
F. Katyayan	1. Khujauli	1.1 Bhakrauli

Source After, Thakur et al. (2009a)

2.3 Moolgram: A Sub Lineage of Mool

After the *panjikars* had finished their task of recording information regarding *mool* of different people, they found that most of the people shifted to other villages. Therefore, they delineated the *mools* recorded before as *mool* and later as *moolgram*. It is true that after that people have migrated to different areas, but the *moolgram* has not changed, and today people are known by the name of their *moolgram* (Thakur et al. 2009a; Jha 1980). *Mool* and *gram* are frozen territorial distributions of two different places at two different points of time (Brown 1983). Finally, 20 different *gotra*, 137 *moolgram*, and 34 *mools* were enlisted. People belonging to different *mools* were spread across 137 different *moolgram* or villages (Thakur et al. 2009a).

The genealogy prepared by *panjikars* takes the above mentioned into consideration in preparing appropriate matches. In many cases, the institution of marriage may involve the migration of women. Marriages are generally arranged within the same caste (caste endogamy) and outside the village (village exogamy). The caste and kin networks of traditionally arranged marriages work in marriages where distance separating the natal and conjugal villages is less (Chaudhary and Mohan 2011).

The *srotriya* brahmins of Mithila follow the *kula* verification (Table 2) in marriage practices. Along with this Thakur et al. (2009a) brings out the idea that marriages are based on caste endogamy which, in a way, promotes isolation and creates a boundary of who one can marry. The rules laid down in the *panji* records for marriage have been followed very rigidly by the Maithils. In these texts, the lawgivers have enumerated all such cases and relationships which should be excluded from marriage in order that the purity of blood of both the families may be preserved (ibid.). Verification, once done by the *panjikars* legitimized the marriage and the families could proceed with it.

Matrimonial relations cannot be established in Mithila if the bridegroom has the same gotra as the bride. *Samgotri* marriage is strictly prohibited in Mithila region. The boy and girl can be married only if there is no relation identified up to the seventh generation on the paternal side and fifth generation on the maternal side. This is known as *solaha kula* or 16 ancestors (ibid.).

Along with the 16 *kulas* listed above, there are also restrictions that need to be followed before marriage takes place. All the below are studied and a list of grooms

Table 2 The Solah Kulas ('16 kulas') mentioned in the Panji records	1. Bride's father's grandfather's grandfather Kanyāka pitāka pitāmahāka pitāmaha		
	2. Bride's father's grandfather's maternal grandfather Kanyāka pitāka pitāmahāka matāmaha		
	3. Bride's father's grandmother's grandfather Kanyāka pitāka pitāmahika pitāmaha		
	4. Bride's father's grandmother's maternal grandfather Kanyāka pitāka pitāmahika matāmaha		
	5. Bride's father's maternal grandfather's grandfather <i>Kanyāka pitāka matāmahāka pitāmaha</i>		
	6. Bride's father's maternal grandfather's maternal grandfathe Kanyāka pitāka matāmahāka matāmaha		
	7. Bride's father's maternal grandmother's grandfather Kanyāka pitāka matāmahika pitāmaha		
	8. Bride's father's maternal grandmother's maternal grandfather <i>Kanyāka pitāka matāmahika matāmaha</i>		
	9. Bride's mother's grandfather's grandfather Kanyāka matāka pitāmahāka pitāmaha		
	10. Bride's mother's grandfather's maternal grandfather Kanyāka matāka pitāmahāka matāmaha		
	11. Bride's mother's grandfather's maternal grandfather Kanyāka matāka pitāmahika matāmaha		
	12. Bride's mother's grandmother's maternal grandfather Kanyāka matāka pitāmahika matāmaha		
	13. Bride's mother's maternal grandfather's grandfather Kanyāka matāka matāmahāka pitāmaha		
	14.Bride's mother's maternal grandfather's maternal grandfather Kanyāka matāka matāmahāka matāmaha		
	15. Bride's mother's maternal grandmother's grandfather Kanyāka matāka matāmahika pitāmaha		
	16. Bride's mother's maternal grandmother's maternal grandfather <i>Kaniyāk matāka matāmahika matāmaha</i>		
	Source After Mishra (1979), Thakur (2009a)		

is prepared for the bride's father to approach a prospective groom of choice. These are stated below:

- i. One who is not of the same *gotra*.
- ii. One who is not of the same $pravar^6$.
- iii. One who is not the *sapinda*⁷ of mother.
- iv. One who is not the *sapinda* of father.
- v. One who is not the child of *pitāmaha* and *matāmah*.
- vi. One who is not the child of stepmother (Thakur et al. 2009b).

2.4 Prevalence of Panji System Among Other Castes

The *panji* system was promulgated not only by Maithil brahmin community but also among kshatriyas and karna kayasthas of Mithila region. It was not much accepted by kshatriyas so it could not be followed by that community. The karna kayasthas got themselves enlisted in the genealogies. They were divided into two sections namely *kulin* and *grihastha*. The system could not last for a long time as in Maithil brahmins. The *siddhant* ceremony of karna kayathas varies from that of Maithil brahmins. This takes place three to four days before the marriage of the Maithil brahmins, but three to four years before the marriage of the karna kayathas (Jha 1980).

3 *Panji* System and Other Genealogical Institutions: A Comparison

3.1 Lineage in Tallensi of Ghana

The *panji* system of Mithila can be compared with the *Tallensi* lineage system of northern Ghana. Just as there is *vijipurush*, *mool*, and *moolgram* divided in sub lineage of *mool*. Similar pattern is found in maximum lineage and minimum lineage and also sections in between them. The social life is entirely dependent on the lineage system. They also maintain records in the patrilineal line of descent as that in the *panji* system. However, just as women are not ignored in the *panji* system, their ancestral line of descent is significant. Females are noted based on their marriage and not as daughters. They also follow the unilineal agnatic descent group that is the descendants known by the genealogy of a single ancestor (ibid.). The major difference is that the name of lineage among the Tallensi is after the ancestor but *mool* among the Maithil brahmins is named after the residence of ancestor. The marriages result in patrilocal families and are polygamy in character.

3.2 Kulji System in Bengal

The *kulji* system is also called *Kulashashtra*, from which the *panji* system is said to be influenced. It consists of the history of Bengal. Bengali brahmin community was divided into four parts: *kulinsiddha, srotriyas, saddhyasrotriya, kayashtasrotriyas* based on their virtues. The *kulji* system started with the same objective as the *panji* systems in order to preserve the genealogies for the marriage codes to be followed. The major difference is that in the *panji* system one belonging to a lower social group can establish a higher relationship with someone to improve their status in social hierarchy. So, there were always ways to let the group have members. As in

the *kulji* system, it was the opposite which resulted in the deterioration of the number of people to abide by the group (ibid.).

Before the *panji* system was introduced, the head of the family kept the genealogical record, later *panjikars* collected information from them. In the case of *kulji*, only the head kept the family record. The Maithil brahmins have made a lot of effort to preserve the *panji* system in many ways making it an integral part of the matrimonial decision-making process even today. The people of Mithila organized an annual meeting between the people and the *panjikars* for the negotiations on marriage. This was not the case among the Bengali brahmins who had adopted the *kulji* system (ibid.).

4 Role of Panji System in Saurath Sabhagachi

The annual meeting locally called Saurath *sabhagachi* is organized for six to seven days in Saurath village (26°39'20" N, 86°04'01" E) of the Madhubani district of Bihar (see Fig. 5a, b). Its objective is to provide a platform for the bride's father to consult the *panjikars* and receive the *siddhant patra*. This gathering was initially organized to allow people from different villages in the Mithila region to hold discussions and meetings. People from distant villages gathered here irrespective of any marriage proposal in their house. With time it took the shape of a matrimonial meeting for the people. There were six places where this meeting was organized namely: (i) Partapur, (ii) Sajhiar, (iii) Rasarh, (iv) Sahasaula, (v) Bangam Mahisi, and vi)Saurath (Jha 1980).

Till the last few years, people used to gather in Saurath for matrimonial purposes. Here the bride's father with his relatives was present to interact with the bride groom's father, get the social background and find the suitability for the matrimonial purpose. If things were favorable, they would go to the *panjikars* sitting in their tents to verify the facts related to social position and status of the family. The father of the bride asks for the *siddhant patra*. In a changed socio-cultural scenario, people are abstaining from being part of such a type of community marriage but they are approaching the *panjikars* for the *siddhant patra* in Saurath *sabhagachi*. In this way, the *panji* system holds social importance in society and in the organization of Saurath *sabhagachi*.

5 Findings and Conclusion

Culture is a reflection of society and its cultural practices are its heritage. Genealogy is an identity of personal heritage and culture in a region. It is even more interesting to know how people are currently carrying the tradition, the inception of which dates back to over 700 years.



Fig. 5 a The Saurath *sabhagachi* in a Mithila painting. Painting and Picture credit: Sugandh. b The site of Saurath *sabhagachi* on a non-seasonal ordinary day. Picture credit: Sugandh

It has been contended through this writing that *panji* records are surely a mirror to the culture present in the Mithila society in India. They provide methods of enumerating genealogical data recording and storing techniques. These techniques, if carefully studied, portray an outlook for the integration of genealogy and geography. Evolving out of this is a picture of spatial relation of data regarding migration. The *gotra* exogamy and caste endogamy are important determinants of marriages in most parts of India and also in Mithila region. This itself is a phenomenon that ultimately leads to migration after marriage. It is interesting to know how a tradition followed by a group of people can be helpful in providing a pattern of their imprints on space.

Panji records are surely a repository of information on how society is organized across social networks of *gotra*, *mool*, *moolgram*, and other forms of segregation. It also provides details about the restrictions one follows due to scientific verification

by the genealogists. There are societies in other parts of the world like that in Ghana and in case of India like that in West Bengal other than *panji* where marriage was an important element of social structure upon which they were based. All these societies aimed to preserve endogamous groups in that region. May it be the verification done by the *panjikars* or their consultation, the *panji* system is vital to the matrimonial decision in the Mithila region especially in the functioning of Saurath *sabhagachi*. There are several angles to which the ancient records can be interpreted; however, more ideas could always be implemented in adding new arenas of knowledge to it.

Notes:

- 1. Panjikar is the local name of genealogists.
- 2. *Sabhagachi* is a congregation in orchard which is organized for the sole purpose of matrimonial negotiations see, Singh and Sugandh, 2017.
- Karnātas ruled over Mithila from 1097 to 1355 CE they were the last independent Hindu rulers of northeastern India. Harsingh Dev (1285–1313 CE) was the last great *Karnāta* king of Mithila. He was the contemporary of Md. Tughlak, see Choudhary, 1954 https://www.jstor.org/stable/pdf/41784923.pdf.
- 4. *Kula* is based on agnatic relations and not territory. People belonging to the same *kula* do not necessarily live in the same village, however, they attend ceremonies hosted by each other. Marriage is said to link two *kulas* together (see Brown 1983).
- 5. *Upnayan samskara* refers to the thread ceremony when a child is drawn towards knowledge by his teacher. https://en.wikipedia.org/wiki/Upanayana
- 6. *Pravar* relates to lineage where the people who followed the person after whom the *gotras* are named.
- 7. *Sapinda* refers to 'all descendants for seven generations in a male line of a man, i.e., of the same *pind*' (see Brown 1983). It is said that one must avoid marriage with any member of his own *sapind*.

References

- Brown CH (1983) The gift of a girl: hierarchical exchange in north Bihar. Ethnology 22(1):43–62. https://www.jstor.org/stable/pdf/3773649.pdf
- Brown CH (1988) Raja and rank in north Bihar. Mod Asian Stud 22(4):757–782. https://doi.org/ 10.1017/S0026749X00015730
- Chaudhary PN (2017) Saurath sabha gachi phero purverak raunakta ke hasil karab shuru kai delak. Mithila Jindabaad, E-newspaper, 28 June. http://www.maithilijindabaad.com/?p=9099. Accessed on 12 Mar 2019
- Chaudhry S, Mohan TD (2011) Of marriage and migration: Bengali and Bihari brides in a UP village. Indian J Gend Stud 18(3):311–340
- Desmond G, Barry (2012) A family histories and geographies: interrelationships between genealogy and geography. Geogr Viewpoint 40:15–23. http://doras.dcu.ie/21459/1/3_SCAN.pdf
- Jha UN (1980) The genealogies and genealogists of Mithila, Kishor Vidya Niketan, Varanasi

- Lamble WH (2000) Genealogical geography: place identification. In the map library. IFLA J 26(3):203–208. https://journals.sagepub.com/doi/pdf/https://doi.org/10.1177/034003520002 600308
- Madan TN (1989) Recruitment to the household: marriage and incorporation. Oxford University Press, Delhi, Family and kinship a study of the pandits of rural Kashmir
- Mishra VK (1979) Cultural heritage of Mithila. Mithila Prakashan, Allahabad, pp 287-300
- Nash C (2002) Genealogical identities. Environ Plan D Soc Space 20(1):27–52. https://journals.sag epub.com/doi/pdf/https://doi.org/10.1068/d314
- Singh RL, Singh KN (eds) (1971) Middle Ganga Plain. India: a regional geography. Silver jubilee publication, National Geographical Society of India, Varanasi, p 247
- Singh RS, Sugandh (2017) Matrimony marriage and migration in Mithila region, India: an exploratory geographical study of saurath sabha. Nat Geogr J India 63(4):49–59
- Thakur G, Jha NK, Jha V (2009) Genome mapping: mithilak panji prabandh 450 CE to 2009 CE' Part 1. Shruti Publications, Delhi
- Thakur G, Jha NK, Jha V (2009) Genealogical mapping: mithilak panji prabandh 450 CE to 2009 CE Part 2. Shruti Publications, Delhi



Ravi S. Singh received higher education from B.H.U. (B.A. Hons), J.N.U. (M.A. & M.Phil.), and J.P.U. (Ph.D.). His doctoral research is in geography of sacred places dealing with goddess places in India. With over 22 years of teaching experience at different institutions, he is currently Professor at the Dept of Geography & Adjunct Faculty: Bhojpuri Study Centre, Banaras Hindu University. He has authored/edited nine books published from India and abroad, including two in press. Over 100 academic works of different genres of Prof. Singh, many of them cross-disciplinary, are published internationally as well as nationally in reputed journals and research series from the United Kingdom, Japan, Germany, Sweden, Nepal etc. including one in impact factor journal. Associated with several prestigious national and international professional bodies and academic programmes, he is Member: State Higher Education Council, Uttarakhand (since August 2017), Vice-President: Indian Society of Spatial Science Kolkata (3rd term), and Secretary: The Institute of Indian Geographers, Pune (2 terms), Treasurer: National Geographical Society of India (Varanasi, India) and member on the editorial boards of several journals. Prof. Ravi Singh has the honour of delivering the 31st Prof. Nirmal Kumar Bose Memorial Lecture at the Geographical Society of India (Kolkata, 2014), Professor Enayat Ahmad Memorial Lecture (Ranchi, 2015), Prof. R. N. Dubey Memorial Lecture (Allahabad, 2019) and over six dozen invited lectures in different institutions across India. He has been Enrichment Fund (Association of American Geographers) Awardee, 2011; and Academic Advisor: The United States-India Educational Foundation, USIEF (2015-16). Prof. Singh has also the credit of contributing to over three dozen international and national seminars/conference/workshops on cross-disciplinary themes as Chief Guest, Guest of Honour, Keynote Speaker, Session Chair, Invited Speaker, and paper presenter in India and abroad in recognition to his professional expertise; and, organising seven national/international seminars/conference/workshops. He has supervised/supervising fourteen doctoral/post-doctoral research fellows. His foreign academic visits have been to the USA, Poland, The People's Republic of China, Sri Lanka, and Nepal. The main areas of his academic interest are geographical thought, geography education, social and cultural geographies, and development geographies with special focus on environment-development interface.

The Two Faces of Bodhgayā



Nikhil Joshi

Abstract Sacredness goes beyond scriptural texts and archaeological remains per se. Its significance mainly lies in the active interaction between humans and religious architecture within its dynamic ritual settings. In addition, this mutual relationship is critical for understanding the sacredness, particularly in Bodhgayā's context and generally for the 'living' sacred architecture in India to best sustain the values of the place in its context while also managing change to the surrounding landscape. The Mahābodhi Temple complex in Bodhgayā (a UNESCO World Heritage Site since 2002) and its immediate sacred landscape is a 'living' heritage, which constitutes differential densities of human involvement, attachment and experience. This entire sacred landscape has been actively produced and reinterpreted socially, culturally and politically during the past century. Thus, it is implausible that everyone would equally share and experience it in a standardised way based on authoritative heritage regulations, which are often quite distant from the local reality.

Keywords Sacredness · Mahābodhi Temple · Bodhgayā · World Heritage Site · Sacred landscape

1 Introduction

The two faces of Bodhgayā re-illustrate the storied city's intensive struggle to balance between the sacred and politics. Since the time of the Buddha, Bodhgayā (Urevalā as it was known during that time) has been visited by Hindus and Buddhists for significant reasons. Even after successive waves of Muslim invaders in the eleventh century CE and the Mahābodhi Temple being maintained by a lineage of Hindu *mahant* (literally: a religious superior, in particular, the chief priest

N. Joshi (🖂)

School of Design and Environment, Department of Architecture, National University of Singapore, Singapore, Singapore e-mail: akinj@nus.edu.sg

[©] Springer Nature Singapore Pte Ltd. 2022

R. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_13

of a temple or the head of a monastery) for several centuries since sixteenth century onwards, its control and daily maintenance was never an issue of conflict. However, it was only in 1891, with the arrival of Anagarika Dharmapāla, a Sinhalese Buddhist lay activist, the situation suddenly changed. This is when the Mahābodhi Temple and its immediate surrounding multivalent sites¹ transformed into contested spaces. Even after more than a century later and after several Acts and Regulations being passed by the authorities, the situation remains strained chiefly when it comes to the relationship between the local Hindus and Buddhists. This endless contestation of sacredness and its meaning per se should not be seen as the 'death' of the Mahābodhi; on the contrary, it illustrates the vitality of the ongoing debate on the meaning and understanding of the 'sacred.' For me, it was quite intriguing how an ordinary incident of a lay foreigner arriving at a multivalent 'sacred' site in India with his perspectives and understanding of Indian religious principles and architecture, was soon able to disrupt a long-established status quo. This incident exerted a strong influence on my thinking regarding the meaning and use of the word 'sacred.' And also whether 'sacred' could be constructed?

India is a land of religions and religious rituals play a significant role in the life of a majority of Indians. Hence, any study related to the sacred in the Indian context would be complicated and always remain incomplete since it is pretty tricky, if not impossible, to cover all aspects of the sacred. Therefore, it was decided to focus on the sacred architecture, notably the Mahābodhi Temple, to illustrate that the sacredness in the Indian context can be best understood within its dynamic ritual settings. In this chapter, it would be argued that rituals are not static; instead, they are continuously produced and re-created by people, thus influencing the sacred. The Mahābodhi Temple and its immediate surrounding sites are the medium for the performance of elaborate religious rituals by a diverse set of people to display their affection and reverence to the Supreme Being. The centre of these traditions, whether for Buddhists or Hindus, is the reinterpreted religious texts, which are compiled by humans through centuries. Most of the religious texts are reinterpreted and evolve with time and changing human aspirations. Therefore, any attempt to contain the perceived sacred in texts, rituals, or even sacred buildings would be incomplete. Furthermore, sacred structures once built almost instantly lose their original meanings and significance as their users negotiate spaces through active interaction using rituals and thus, stimulate fresh understanding of both religion and sacred architecture. Therefore, it is vital that the sacredness of a place must not be recognised only in terms of architecture and canonical scriptures but also by ways its users interact with it either socially, culturally, or politically and form various identities through such constructions.

¹ On the one hand, Bodhgayā has immense significance for the Buddhists as the most important pilgrimage place in India because of the 'Diamond Throne' (*vajrāsana*), the place where the Buddha attained supreme wisdom, while on the other, due to its close proximity to Gayā and its inclusion in the Hindu pilgrimage network, it also draws thousands of Hindu pilgrims who come here to worship the Buddha *deva* (literally: God), commonly viewed as the Vishnu's *avatāra* (literally: incarnation) and perform ancestral rites called Gayā-śrāddha.

This chapter will highlight the use of religious architecture as the representation of the sacred and will analyse spatial-temporal elements of the Mahābodhi Temple and its surrounding sacred landscape. The aim is to assess attributes of sacredness as:

- Built forms, rituals and images;
- Beliefs in relation to human participants reflected in 'ritual-architectural events;' and
- Different ethnographic, political and non-political narratives that influence the 'sacredness of the place.'

In the following sections, by using the Mahābodhi and its immediate surrounding sites, it will be illustrated that rituals (human actions) and architectural space are closely related, rituals forming the space and providing it with meaning. It is only when space and form have been created that they provide the ritual context for spiritual experience. As religious architecture symbolises the relationship between humans and the cosmos, rituals signify a 'living symbolism' that exemplifies the actions of human beings towards the transcendental force. The inter-relationship of the built form and the power of ritual (architectural-ritual events), which I have termed as 'sacred placeness,' influence people's reading, understanding and experiencing sacredness.

This chapter would begin with the premise that understanding the 'living' element of the sacred architecture, which lies in the dynamics of architectural-ritual events, is essential to understand and manage sacred places. Moreover, this understanding of the working of the sacred could further influence the theoretical and practical aspects of built heritage conservation. It would further examine how people in the past and the present responded to and interacted with the sacred Mahābodhi Temple to construct and sometimes reconstruct what they perceived as its sacredness. The Mahābodhi Temple, unlike most of the other monuments, is a 'living' religious place and during the last century or so, it has gone through several transformations, both tangible and intangible. These transformations not only altered its fabric but also how the 'sacred' is being controlled and preserved by different stakeholders, including the local population comprising of Hindus, Muslims and Buddhists; pilgrims; tourists; people running commercial establishments; several religious institutions in the vicinity including foreign Buddhist monasteries, Hindu *math* and temples and Muslim graveyard and mosque; various non-governmental organisations [NGO]²; and local, national and international organisations.

Lastly, this chapter would illustrate some of the recent events since the Mahābodhi Temple complex's designation as a UNESCO World Heritage Site (WHS) in 2002 in an attempt to highlight that the sacredness of the Mahābodhi

 $^{^2}$ Bodhgayā is also known as the NGO capital of India with more than three hundred NGOs, both legal and illegal, all competing to receive maximum donations from foreign tourists in the name of the Buddha.

Temple and its surrounding areas is continuously re-packaged by the government authorities to suffice their political and religious agendas. It would be argued that the WHS status immensely contributed to the ongoing contestation regarding the control of the site. Also, it helped in constructing the 'official' discourse about the outstanding universal value of the site as a Buddhist monument as it completely disregarded other shared sacred sites around the main Temple complex, which have more Hindu following. The WHS status has significantly transformed the sacred geography of Bodhgayā immensely and rapidly in the last decade. The WHS status and subsequent production of several policy documents and their complete failure even at their implementation stages have created new conflicts between diverse stakeholders regarding politics about the control of space and its significance.

It is expected that this chapter would contribute immensely to the reading of sacred architecture, particularly in the Indian context and would also further add to the better understanding and formulation of conservation approaches towards the 'living' religious places.

2 The Mahābodhi as a 'Living' Humanised Sacred Place

Émile (1964), Otto (1936), Eliade (1959) are some of the authorities who have written significantly on the 'supernatural sacred.' By supernatural sacred, I mean the sacred that is predominantly related to the other world, separate from the profane. Most of these monumental works described the sacred as something fundamentally opposite of profane. However, none explained the origin of the sacred. Interestingly, several authors in the past who have written about the source of the sacred examined just one type of religion, totemism. The methodological rationale for not examining their own contemporary and complex religion, like Christianity, or any other religion, say Hinduism, to discuss religion and sacred is never convincingly explained by the authors mentioned above.

Additionally, some of the authors, including Durkheim, obtained their information on totemism from other ethnographers, mainly Christian missionaries and administrators working in the remote areas and later interpreted the material obtained from other sources based on their understanding of Judeo-Christian religious traditions. For example, in Otto's (1936: 146) view, "Christianity ... stands out in complete superiority over all sister religions." On the other hand, the 'human sacred', which plays a vital role in my study, is entirely different from the 'supernatural' as it is all about the people's experience and interaction with the existing real world. This humanised, meaning-laden sacred place is far from being uniform and the same for everyone as it is constituted of various densities of human experiences and understandings.

Several existing studies have approached the topic of sacred architecture in India such as Meister and Dhaky (1986) research primarily focuses on the evolution of ancient North Indian temple architecture affiliated to various dynasties of that time; Michell (1977) provides an excellent introduction to the meaning and forms of the

temple in the Hindu society but somehow failed to offer a link between the sacred architecture and religious rituals and other agendas these buildings served; Kramrisch's (1976) magnum opus illustrates the *Vastu-Purusha* mandala as the ritual diagram of squares, which she argues is the basic planform of all Hindu temples; a brief discussion by Coomaraswamy (1992) on the pre-Aryan origins of the popular sacred-tree cult, which according to him was later adapted by the local Buddhist cult is significant in understanding their development; Vatsyayan's (1991) edited volume studies the concepts of space through multidisciplinary studies such as art, architecture and religion. It highlights the role of ritual space as an intermediary between the human mind and the divine. Correspondingly, consecrated spaces such as stupas, temples, caves are built by humans to facilitate this experience of becoming one with the god.

Some scholarships (both published and unpublished) on how the Mahābodhi Temple has been approached theoretically are available to us from the existing literature: Geary (2009) uses the metaphor of 'global bazaar' to illustrate the commercial activities that are linked to and around the UNESCO World Heritage Site (WHS) of the Mahābodhi Temple. Geary, in his thesis, highlights the ongoing commercial activities that happen in Bodhgayā and also associate them to the recent WHS designation of the Temple complex; however, he completely overlooked the appropriateness of the WHS boundary, which was forced onto the locals by the authorities, which are mainly based few thousand miles away from Bodhgayā, oblivious of the state of the locals. This high-handed top-down approach is the only reason for the failure to implement several development plans prepared in the last few decades to benefit the people of Bodhgayā, who are one of the stakeholders of the WHS Temple complex. Trevithick (2006) highlights the role of Anagarika Dharmapāla in the history of the Buddhist 'revival' at Bodhgayā in particular and in India at large. He uses the term 'revival' to describe the Buddhist pilgrimage at Bodhgayā from 1811 till 1949. This was not the actual picture at Bodhgayā since it is known that the pilgrims visited it regularly even before the arrival of the British East India Company officials at Bodhgayā and their discovery of the Buddhist sites in subsequent decades. Since the Great Temple of Mahābodhi was never lost, the faithful pilgrims regularly visited this most sacred place. Therefore, the question of its revival was out of the question and irrational. However, the in-depth detail of the legal case between Dharmapāla and the Hindu mahant of the Bodhgayā Math provided by Trevithick is commendable. Nugteren (1995) describes the rituals around the Bodhi tree(s) in the Mahābodhi Temple complex to highlight the 'multivalent' nature of this sacred place. Doyle (1997), with the help of ritual performances, illustrates the two faces of Bodhgaya-one that is sacred to Hindus and the other to Buddhist pilgrims.

Interestingly, all scholars overlooked (either intentionally or unintentionally) the significant presence of Muslims in Bodhgayā both in terms of population and land holdings, as they hold a vital place when it comes to politics based on religious issues. Religion-based politics is nothing new to Bihar, where the majority of the population are still illiterate and lives below the poverty line. So this is where the role of the Mahābodhi Temple complex comes into play in recent times when the

political parties use this sacred place to gain mileage by appointing a Muslim as the Chairman of the Bodhgayā Temple Management Committee (BTMC) and by promoting it as a purely Buddhist site.

In the mid-nineteenth century, Karl Marx stated in the Critique of Hegel's 'Philosophy of Right' (1982: 131) that "Religion ... is the opium of the people... Religion is only the illusory Sun which revolves around man ..." Marx's statement seems quite relevant in the present situation of the Mahābodhi Temple in Bodhgayā. Several elite parties, including Buddhist monks, Hindu mahant, politicians and foreign Buddhist converts, are currently running large religious organisations in Bodhgayā and almost all of them have rediscovered, reinvented and reinterpreted their rendition of the past events only to legitimise their present claims and use their authority to transform the sacred landscape of Bodhgaya into one that suits both themselves and their followers. Most of the activities and agendas of these modern narratives exert substantial influence on the lay followers and the workings of the Mahābodhi Temple. The holy Mahābodhi, which was once a mutually shared multivalent site, visited by a wide variety of people following different religions until the late nineteenth century suddenly became a contested sacred site as events of the past were reinvented and Hinduism and Buddhism were seen as completely incompatible by various parties such as Dharmapāla and Cunningham to name a few, who re-appropriated the past according to their understanding and needs. Watson (1985: xiii) argues that pluralism is "that the truth admits for more than one valid formulation." This understanding of pluralism must have prevailed in Bodhgayā for centuries before the arrival of Dharmapāla in 1891 since there was no recorded incident of conflict between the Hindus and Buddhists for the exclusive control of the site and the Mahābodhi Temple and its surrounding places were accessible to followers of either religion.

It is interesting to note that until the arrival of the British in the early 1870s, Bodhgayā was a 'shared' sacred place with the holy Bodhi Tree and the *vajrasanā* (literally: Diamond Throne) under it as the centre of veneration for visiting pilgrims and scholars. The situation at Bodhgayā gradually transformed with the advent of archaeologists and officials of the British India government. The British had their own aesthetic and religious judgements, which were significantly different from the then existing religious understanding in India. These actors played a significant role in restoring several structures in and around Bodhgayā, including the Mahābodhi Temple (from the late 1870s till early 1880s) to maintain their sacredness primarily as Buddhist pilgrimage sites. They even published several detailed accounts of their restoration works, often commenting on the religious and architectural significance of those structures, as per their understanding, to legitimise their supremacy.

In early 1949, after almost forty-five years since Lord Curzon's British India government decided to abandon the 'Great Case' between the Hindu *mahant* of the Bodhgayā Math and Dharmapāla regarding the question of the Temple's rightful ownership, the independent Congress-led government of Bihar passed historic legislation that transferred the daily management of the Mahābodhi Temple complex to a nine-member Bodhgayā Temple Management Committee (BTMC) comprising the District Magistrate of Gayā (as ex-officio chairperson and who

should always be a Hindu). The long and complicated legal battle between the Hindu *mahant* and Dharmapāla illustrates pluralities of relative understanding and the various uses of sacred architecture.³ The government of Bihar amended this Act in July 2013 as it deemed it anti-secular to them not to allow a non-Hindu to be the chairperson of the Temple Committee. Many political parties and several Buddhist organisations termed this move to attract vote bank politics. By the Bodhgayā Temple Act (BGT) of 1949, the government of Bihar acquired the power to have the final authority in case of any deadlock within the BTMC.

In a recent development, the Supreme Court of India admitted two different petitions (dated: February 13, 2012, by Wangdi Tshering and September 21, 2012, by Bhante Arya Nagarjun Shurai Sasai) seeking transfer of exclusive management and control rights of the 2,500-year-old Mahābodhi Temple at Bodhgayā from the Bihar State Government. Interestingly, petitioner Bhante Shurai Sasai is Japanese born naturalised Indian who was also a member of the Bodhgayā Temple Management Committee (BTMC). In his appeal, he said that the management of the holiest shrine by persons from other religions hurt the religious sentiments of the Buddhists and question the constitutional validity of provisions of Bodhgayā Temple Act of 1949, which according to him, gave the Hindu members an undue majority and their decision prevail over the opinion of the minority Buddhists in the BTMC. He also asserts that "lakhs of Indian Buddhists continue to be denied the exclusive right of management and control of the Mahābodhi Temple in Bodhgayā, Bihar, on account of the offending provisions of the 1949 Act. At present, due to mismanagement and indifference to the Temple, the sacred Bodhi Tree is in danger of decay as found by the committee of the Archaeological Survey of India" (TNN 2012). The recent petitions in the Supreme Court of India have once again revived the battle for the control of the Mahābodhi Temple, which had been resolved (at least on paper) several decades ago through the Bodhgayā Temple Act of 1949. These controversies could inadvertently encourage separatism nurtured by the British colonisers in the past and by their proxies in present India.

3 Authenticity of the Past

The whole dispute about the Mahābodhi Temple complex and the holy Bodhi Tree revolves around the authenticity of the past that is often borrowed, reconstructed, reinterpreted, hybridised and narrated by different actors and groups performing the ritual drama at Bodhgayā. Furthermore, in Bodhgayā, the idea of something being 'authentic' and sacred seems to be forced on people by the so-called religious authorities citing holy texts. Moreover, thanks to their incontrovertible sacred authorship in India, no pious person would ever dare to challenge the credibility of

³ For more on this subject, please refer to Joshi (2019) The Mahābodhi Temple at Bodhgayā: Constructing sacred placeness, deconstructing the 'great case' of 1895. Manohar Publishers, Delhi.

religious scriptures, which are compiled together by humans. However, the question remains: who decides what is authentic? Also, whether 'authenticity' is the bedrock of faith or is it in a continual flux?

'Authenticity' as a concept has changed its meaning and criteria since its invention. The word 'authenticity' first appeared in the Venice Charter of 1964, an international conservation-related document. Article 15 of the Venice Charter states that reconstruction (rebuilding mainly using new materials or restoration that is based on conjecture) of culturally significant heritage sites is not allowed while only the reassembly of the original parts (anastylosis) can be permissible. Even in the Operational Guidelines for the World Heritage Convention (WHC/2/Revised), Article 24b.i, it has been clearly stated that in order to be included in the UNESCO World Heritage Site list, cultural properties must "meet the test of authenticity in design, materials, workmanship and setting" (UNESCO 1996: 7). Subsequently, at the Nara Conference (1994), the concept of evolution of authenticity through time was debated rigorously (ICOMOS 1994: 47). During its conclusion, it was reaffirmed that the layers of history acquired through time or "progressive authenticities" (von Droste and Bertilsson 1995: 3) by a cultural property should be considered as authentic attributes of that particular property.

More recently, global heritage organisations such as the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and UNESCO have finally acknowledged the cultural differences in the understanding and working of authenticity. Hence, they fundamentally revised the criteria for judging authenticity for inclusion in the World Heritage Site list. This was seen as a significant shift from the Euro-centric idea of material and historical authenticity to the Eastern concept of heritage as tradition, which retains the memory of the past but is in a continuous process of development. Presently, the authenticity of sites in Bodhgayā depends as much on where and what things are. For example, the new signage installed in the Temple's compound in the 1990s mostly fixed the problem of designating the sacred spots where it is believed that the Buddha spent time after gaining enlightenment. Furthermore, the building of new 'authentic' shrines in and around Bodhgaya in the past few years have reinvented authenticity and Buddhist authority in the multivalent contested sacred site of the Mahābodhi Temple. For most of the people, things in and around the holy landscape of the Mahābodhi complex seemed ipso facto estimable and laypeople view them with reverential awe. However, they would never be able to encounter the authentic experience since significant changes were made to the Temple and Bodhi Tree in the past, which continues to be made even to date. The most important being the transformation that happened to the immediate environment surrounding the Temple complex (Figs. 1 and 2) that makes it impossible to recapture the serene atmosphere of the village Urevelā in the past. The Buddha described it as a good place for striving with "a beautiful stretch of ground, a lovely woodland grove, a clear flowing river with a beautiful ford and a village nearby for support" (Bhikkhu, 2004).



Fig. 1 The surroundings of the sacred Mahābodhi Temple complex have changed drastically in the past few decades. Unplanned haphazard development and increased vehicular traffic dominate the urban landscape of the present Bodhgayā. *Source* Joshi (2011)

4 Inventing Universal Identity

O ye Buddhists of Asia! Arise, awake from your lethargy, Rescue your most hallowed Shrine from neglect and decay. (Anon 1892: 1-2)

Anagarika Dharmapāla said the above revolutionary words in 1892. The same message was even printed on the front cover of the Mahabodhi Journal edited by Dharmapāla and published by his Buddhist organisation. As the General Secretary of the Mahābodhi Society of India and the Pan-Buddhist movement leader to resuscitate the Buddhist movement in India, Dharmapāla called for a Buddhist brotherhood. However, he overlooked the fact, either intentionally or unintentionally, that Buddhism in Asia was quite varied, comprising several schools of thought, which were significantly different from each other in religious aspects. Dharmapāla's aim to form a Pan-Buddhist religious movement never gained a tremendous impetus and later, he was forced by his several failed negotiations to rescue the Mahābodhi Temple from the hands of Hindus, to soften his stance to a more congenial Hindu-Buddhist solidarity.



Fig. 2 The surroundings of the sacred Mahābodhi Temple complex have changed drastically in the past few decades. Unplanned haphazard development and increased vehicular traffic dominate the urban landscape of the present Bodhgayā. *Source* Joshi (2011)

To the Buddhists, Lord is the Supreme One. The Hindus have many devatas to receive their worship. The Buddhists do not worship Vishnu; neither do they worship Siva. But Ceylon Buddhists hold Vishnu as the patron God of Ceylon. (Anon, 1925: 180)

Concurrent to Dharmapāla's efforts, Mahāyāna Buddhist leaders were also busy crafting appeals to Hindu organisations for mutual interests to control the Mahābodhi Temple. These Mahāyanist invocations were carefully drafted and sometimes even invented some facets of Buddhism to illustrate the commonalities between the Indian character of the Buddha and Vaishnava tradition:

Our Hindu Brothers worship Lord Buddha as the ninth avatar and historically Gautama Buddha is the Greatest Figure in the Motherland. ... will not our Hindu Brothers join hands with us and give us our shrine, at which all are free to worship. The one condition being that Ahimsa (non-violence) shall rule at the holy site of Him who was Lord of Compassion? (Anon, 1925: 127)

However, the parallel appeals by other Buddhist schools made Dharmapāla uneasy as he thought that the idea of mutual control of the Temple would seriously harm his efforts to resuscitate Buddhist movement in particular and produce a universal Buddhist identity in general. The other appeals, especially by Okakura who favoured the language of commonality and shared origins of Asia's two great religions—Hinduism and Buddhism (Okakura, 1903), were quite a contrast to Dharmapāla's public Buddhist militancy. Okakura's diplomacy earned him many Hindu friends in India, including the *mahant* of Bodhagayā who was delighted to

find a true Buddhist friend in him who was talking the language of assimilation, contrary to that of confrontation as in the case of Dharmapāla.

Dharmapāla, all through his life, tried hard to invent a somehow new form of modernist 'Asian' Buddhism based on his early engagements with Christianity and Theosophy. His interactions with the West's so-called civilised and modern culture certainly had a profound impact on his thinking and working styles. Obeysekere (1970: 43–63) rightly coined Dharmapāla's new movement as "Protestant Buddhism" since it emerged through influences from Protestant and enlightenment values of the West. Dharmapāla's dynamic preaching and publications regarding his Pan-Buddhist movement generated sufficient interest in the past among some of the elite and educated Hindus and also among few displeased Christian followers in the West. Dharmapāla's movement renewed and spawned several Buddhist organisations in India and abroad (mainly America and the United Kingdom), which both directly or indirectly helped him with his cause to restore to some extent the ancient Buddhist shrines at Bodhgayā, Sarnath and Kushinagar into the hands of Buddhists, who according to Dharmapāla were the rightful heirs of these sites.

Dharmapāla breathed his last on April 29, 1933, without seeing the desired result of his diligent efforts of four decades. Nevertheless, the Bodhgayā Temple Act of 1949 could be seen as a partial victory for Dharmapāla and his Buddhist supporters as the Act provided the day-to-day maintenance of the Mahābodhi Temple to a joint committee comprising both Hindus and Buddhists. Nonetheless, even after the Bodhgayā Temple (Amendment) Bill 2013 that allowed a non-Hindu to head the Temple committee, few Buddhists view this Act as mostly Hindu dominated. This, according to some Buddhists, prevents the smooth working of the Temple and issues related to Buddhists hardly get resolved. This issue has been raked up persistently in the last two decades by several Buddhists who have filed public interest litigations in the Supreme Court of India to amend the 1949 Act and also held 'sit-down strikes' and 'fasts unto death' at various locations in India against the injustice done by implementing the Act. Since the early 1990s, Bhante Shurai Sasai and his Neo-Buddhist followers (converts from the Hindu Dalit caste) are the torch bearers of the campaign to liberate the Mahābodhi Temple (Fig. 3). Interestingly, during their ordination, they take Shurai Sasai's pledge to liberate the Mahābodhi Temple from Hindu hands. How much they could influence the social and political scene at Bodhgayā with now only Sasai in the Bodhgaya Temple Management Committee remains to be seen.

Bhante Shurai Sasai is engaged in rejuvenating modern Buddhism in India, mainly among the Ambedkarites (Neo-Buddhists); however, his work is not any different; instead, he continues the legacy of Ambedkar and Dharmapāla. In the early twentieth century, Dharmapāla, through his several centres of the Mahabodhi Society, managed to convert a small number of educated higher caste Hindus to Buddhism and worked very hard to reinvent the concept of universal Buddhism in Asia. In the mid-twentieth century, Ambedkar promoted the large-scale conversion of the Hindu Dalits to Buddhism to escape the wrath of being the lowest in the hierarchy of caste-based Hindu society prevalent in India. Innumerable Dalits have been converted since Ambedkar's call in 1956, but how many understand and follow the philosophy of Buddhism in their daily lives would be an exciting area of research.

Return the Mahabodhi Vihara to Buddhist Control



Revise The BodhGaya Temple Act of 1949

To All Buddhists and Those who prize justice and fairness

Please join us in appealing to the Government of India for the immediate restoration of the Buddhists' right to manage our own revered Mahabodhi Vihara in BodhGaya.

Fig. 3 Flyer by the All India Bhikkhu Maha Sangha demanding the revision of the Temple Act 1949 and the return of the Temple to Buddhist control. These were distributed during a demonstration at the Kalachakra ceremony at Bodhgayā in January 2012. *Source* Joshi (2012)

Several scholars have criticised these religious conversions as a political gimmick rather than a sincere attempt for social reform and betterment of the Neo-Buddhists. The state governments of Tamil Nadu and Gujarat passed new laws in 2003 to ban these 'forced' religious conversions. Nonetheless, such conversions still happen in other parts of India. What is important to note here is that most of the Neo-Buddhists espouse a distinctive interpretation of Buddhism, which does not accept in totality the scriptures of any of their three established Buddhist schools— Therāvada, Mahāyāna and Vajrayāna. Instead, they put forth a fourth 'invented' yāna, Navayāna, a kind of modernist enlightened version of the *Dharma*. For modern Neo-Buddhists, Ambedkar is the one who showed them the right way to lead a life. Hence, he is considered a bodhisattva. In addition to usual Pāli *trisaranam* chanting, the Neo-Buddhists sometimes also include *Bhimam saranam gachchami* (literally: I will take refuge in 'Bhim,' who denotes Bhimrao Ramji Ambedkar) to mark their reverence to Ambedkar and his teachings.

The production of collective Buddhist identity has not been limited to Dharmapāla, Ambedkar, or Shurai Sasai. Several instances where other parties and organisations such as the Bodhgayā Temple Management Committee (BTMC) contributed to such productions. For example, renaming of the Mahābodhi Temple as Mahābodhi Mahavihāra and the use of Buddha Gāya instead of Bodhgayā by the BTMC emphasise the fact that several processes motivated by Buddhism are working simultaneously for the incorporation of contestations at the sacred site of the Mahābodhi Temple. Besides, Bodhgayā also witnesses some waves of the Hindu fundamentalists protesting against Buddhists' efforts to regain the total control of Mahābodhi Temple, which according to them is a sacred *mandir* (literally: temple) of *Bhagawan* (literally: God) Buddha, an incarnation of Lord Vishnu.

5 Architectural—Ritual Experiences: The 'Fluid' Sacred Placeness

People's conceptions about the sacred and different interpretations of religious rituals are subjected to continuous alteration and re-invention by the ever-evolving religious practices. Religious rituals can be compared to stage plays as both are performative and have evolved with time and continually changing human aspirations. Hence, the question arises as to how to establish the authenticity of religious rituals when they are fluid, situational and transient? Undoubtedly, the meaning of ritual is complex and any attempt to come up with an all-inclusive definition of it is difficult, if not an impossible task. However, considering the context of the Mahābodhi Temple, it seems a more precise working definition of religious ritual for use in this particular context may be required. This should be worked out together by appropriate bodies composed of all stakeholders.

Rituals are central to almost all religions and can be used to form social (and political) control of a defined community. They are often used by dominant

religious authorities and political institutions to construct (and sometimes reconstruct) the meaning of a sacred place and, thus, help to create a sense of belonging for a community. Intentionally or otherwise, it excludes others from belonging there and, thus, introduces a symbolic and sometimes physical boundary between the people of a religious denomination and outsiders. The Mahābodhi Temple is an excellent example of this (re)construction, which rapidly transformed from a shared multivalent site into a fiercely contested sacred site with significant support from the Orientalist construct of Buddhism.⁴

5.1 Constructing Sacred Placeness

According to Livingston (2005: 81), rituals as an "agreed-on and formalised pattern of ceremonial movements and verbal expressions carried out in a sacred context," are found in all human communities, though their levels of meanings and functions are significantly different from one another, which are most of the times not manifest but latent, apparent only to participants. They play quite an important role in Hinduism. However, Buddhism has no prescribed religious ritual and is devoid of religious authority, whether a text or a person. As the Buddha stated in *Kalama Sutta* (Bhikkhu, 1994) that:

⁴ Since the post-reformation in the sixteenth century, Westerners were aware of the significance of the nature of Christian religion and the importance of a canon of authoritative works. During the nineteenth century, they took upon themselves the task to significantly construct Buddhism as a world religion by encoding, systemizing and locating its essence firmly within a clearly defined 'canonical' texts, which were studied and translated in Western institutions by European scholars. One such French Sanskritist scholar was Eugène Burnouf, who in 1844 wrote a monumental *Introduction à l'historie du Buddhisme indien* utilizing the 147 Sanskrit manuscripts brought back from Nepal by Brian Hodgson in 1824. Burnouf argued that Buddhism is an Indian religion and that it must be understood first through texts in Indian languages (Lopez Jr, 2009: 87). Soon after Buddhism's construction in the nineteenth century by European Orientalists, it became their domain and, later, that of American and Japanese scholars. Much of the earlier translations of the Buddhist doctrines had shortcomings due to the limited cultural understanding of the early scholars. In addition, these translations often reflected approaches that seemed to be divorced from the living traditions of nineteenth-century Asia and mainly reflected Western aspirations and interests.

Anagarika Dharmapāla who was one of the most important Buddhist reformers in the nineteenth century Ceylon (now known as Sri Lanka) was heavily influenced by European Orientalist studies and British monumental archaeology. Due to his unfamiliarity with Pāli texts and a better acquaintance with the general anglophile bourgeois culture, Dharmapāla during his early years was significantly influenced by enormously popular *The Light of Asia* authored by Sir Edwin Arnold, whom he reverenced as his "English Guru". Arnold, while preaching through his writings, heavily relied on the second-hand knowledge of both Buddhism and Hinduism through English translated books and his trusted English speaking Buddhist friends.

[do] not accept what you hear by report, do not accept tradition, do not accept a statement because it is found in our books, nor because it is in accord with your belief, nor because it is the saying of your teacher. ... Be ye lamps unto yourselves. ... Those who, either now or after I am dead, shall rely upon themselves only and not look for assistance to anyone besides themselves, it is they who shall reach the very topmost height.

Elaborate Buddhist rituals started surfacing since the Lord's *parinirvāna*, not to forget His funeral ceremony, which has been recorded in detail in the Buddhist scriptures. The so-called Buddhist authorities could find several diverse explanations regarding prevalent Buddhist rituals and most of them were seen as the way to the realisation of the essence of the Buddha's teachings. They are considered both training and teaching for the mind and heart to open fully so that the difference of 'I' and 'other' completely disappears.

Rituals in the form of pilgrimages do play a central role in Mahāyanist Buddhism and certainly in Hinduism. Circumambulation along the sacred landscape consists of a significant part of pilgrimages. The essential requirement of movement in the landscape appropriated or built, as in the case of the Mahābodhi Temple complex, govern the structure of pilgrimage, for it is in moving that people perceive the oneness with the holy and even the layout of cosmos. This relationship between the people performing rituals and what they consider sacred sanctifies and socially defines the Mahābodhi Temple complex. Therefore, it would not be wrong to say that sacred architecture, particularly in the Indian context, can be best understood within its dynamic ritual setting.

The Borobudur Temple compound in central Java, which is one of the most important Buddhist monuments in Southeast Asia and also a UNESCO World Heritage Site, is another example that illustrates how architectural forms and rituals uniquely blend. The Borobudur Temple compound was built during the eighth and ninth century CE around a hill to form a gigantic structure representing Mahāyāna Buddhism's cosmology and its theology. Several scholars have interpreted the meaning of this monument. However, the best interpretation, which is generally accepted by all, is that the Borobudur Temple compound being a mandala, an instrument that assists meditation. When pilgrims perform the ritual of '*pradaksina*', which consists of moving around the structure by keeping it always on the right hand, they will ascend through the three worlds (*kamadhatu, rupadhatu* and *arupadhatu*) and its different states of existence in the form of the spiral, spiritual circumambulatory path. This ritual thus becomes an act of devotion to the stupa, or the representation of the Buddha (Govinda 1976: 68).

A stūpa is regarded as a symbol of the centre of the universe, the *axis mundi* and links together all three cosmic levels—heaven, earth and the underworld. The communication with heaven is expressed through this *axis mundi*, or the cosmic pillar around which lies our world. Hence, the axis is viewed as "in the middle," at the "navel of the earth." Scholars have argued that circumambulation (*pradaksina*) around a stūpa may have originated from the ancient Indian concept of the macrocosm-microcosm parallelism. Since the Mahābodhi Temple represents the image of the universe and the centre of the world to most Buddhists, it may then be concluded that the ritual of *pradaksina* around the stupa this mental activity/ state is

the re-enactment of the relationship between the macrocosm and the microcosm. Also, the wave of a pilgrim's direction is compared to the current in the cosmic ocean, which flows around the cosmic mountain (Jumsai 1987: 184). Circumambulation (*pradaksina*) by pilgrims inside the Mahābodhi Temple complex and the outer circumambulation as illustrated in Fig. 4; thus, they can be considered as a ritual, which unifies a pilgrim and the universe as one.

The Mahābodhi Temple appeals to many people from multiple nations for many different reasons, though mainly religious. The Temple receives millions of visitors every year (over three million in 2011). Since these visitors travel to Bodhgavā for different purposes, such as pilgrimage (explicitly religious) and cultural tourism (explicitly secular), which have significant overlap, nevertheless, it creates polarities between different types of visitors that could be observed, primarily while they practice their rituals at the Mahābodhi Temple complex. The pilgrims express their devotion to the Lord Buddha in a different way: (i) some perform circumambulation (pradaksina) around the main Temple, always clockwise; (ii) some count their beads and chant mantras while rotating their prayer-wheels; (iii) some make prostrations; (iv) some sit silently under the Bodhi Tree and meditate while some practise walking-meditation; (v) some tie Buddhist flags and banners to the stone railing around the Tree and the Temple; (vi) some apply gold-leaf to the stone railing and Padmapani Bodhisattva statue located in one of the niches in the lower part of the Mahābodhi; (vii) some gather the fallen leaves from the Bodhi Tree early in the morning; (viii) some offer gifts such as flowers, cloth(es) with the Buddhist sacred symbols, coins; (ix) some revere the Temple, the Tree and the Buddha's feet by touching them with their hands and forehead; (x) some gather around the open space near the Tree and listen to the sermons delivered by monastics; and (xi) while others simply relax on lawns around the Temple.

Although there is no restriction on the visit of Hindu visitors to the Temple complex, during my several visits during 2009–13, it was still felt that they were not welcomed by the majority of Buddhist visitors who seem to monopolise the sacred site of the Mahābodhi. The Hindu visitors to the Mahābodhi Temple complex did not show the fervent devotion to the Temple and the Bodhi Tree that they used to display at other Hindu sacred sites such as Benares, Puri, Dwarka, or Rameshwaram. Muchalinda *Sarovar* (literally: lake) is an exception during the *śrāddha* (literally: anything or any act that is performed with all sincerity and faith) period when many groups of Hindu pilgrims dominate the site and practice their particular rituals as per the Hindu *Shastras*(literally: scriptures) integrating them with the surrounding landscape (Fig. 5), thus creating 'sacred placeness'—the architectural-ritual interactions and also adding to ritual pluralism to the sacred Mahābodhi site.

It is rather unfortunate that the true essence of the Buddha's teachings and Hindu philosophy of *Vasudhaiva Kutumbakam* (Sanskrit: वसुधैवकुटुम्बकमम्बकम from vasudha," the earth; "iva," as a; and "kutumbakam," family) that means 'the whole world is one single family' has somehow taken a backseat since the Mahābodhi Temple's proprietorship issue between Hindus and Buddhists first started in

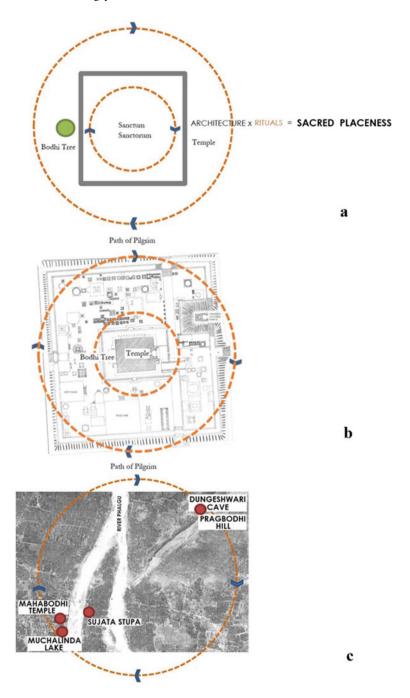


Fig. 4 Circumambulation (*pradaksina*) by pilgrims inside the Mahābodhi Temple complex and the outer circumambulation. *Source* Joshi (2012)



Fig. 5 Hindu pilgrims performing the *śrāddha* ceremony under the sacred fig tree near Muchalinda *Sarovar* at the Mahābodhi Temple complex. *Source* Joshi (2011)

Bodhgayā in the late nineteenth century and which continues even today. The dispute at the very heart of the matter was not only about the rightful control of the sacred Mahābodhi complex but the question of who among the Buddhists and Hindus were entitled to worship the Buddha's image at the *sanctum sanctorum* and, most importantly, what sorts of worship were appropriate and inappropriate.

Beyond doubt, the multivalent Mahābodhi site is a socially produced humanised space, which acts as a medium and is very much involved in events within which it is associated. Since sacred places around the Temple have always constituted differential densities of human experience, attachment and involvement, they are always open to transformations and changes rather than being uniform and forever the same. This socially constructed sacred place could only be understood through its relational significance between its users and how they use and create that particular space, which is never the same if compared with the authoritative creation of space that has been provided and established by the so-called experts. Hence, a complex 'living' sacred site such as the Mahābodhi Temple complex can never have a universal essence, which is quite contradictory to the universal standards of the World Heritage Committee that mainly determines "which cultural expressions to be designated as masterpieces of the heritage of humanity" (UNESCO 2001).

6 The Mahābodhi World Heritage Site: From Sacred Landscape to Fractured Touristscape

Several pilgrims used to visit the holy site of Bodhgayā since the time of Buddha for many different reasons. For some Hindus, Buddha Deva (literally: God) is the avatāra (literally: incarnation) of Lord Vishnu and Bodhgayā is the holy site to perform ancestral *śrāddha* rites; for Buddhists, it is the navel of the earth where Sammasambuddho (literally: perfect Buddha, a fully enlightened one) attained enlightenment. However, the journeys of veneration to Bodhgayā have changed in recent times, influencing the transformation of the overall sacred landscape surrounding the Temple complex into a touristscape that is being consumed daily by millions of 'spiritual' tourists from across the world. Since the UNESCO World Heritage Site designation in 2002, the Mahābodhi Temple complex and the surrounding areas saw an unprecedented uneven local development that has resulted in vast inequalities in wealth. This situation has created a growing antagonism between local business people and foreign religious institutions who now own most of the surrounding Mahābodhi Temple complex land. Despite several 'top-down' and autocratic approaches by concerned authorities towards the planned development of Bodhgayā, the absence of engaging the local community and other stakeholders from the start in the decision-making processes have led to the complete failure in formulating and implementing proper planning regimes. A glaring example of the lack of transparency and local engagement for the maintenance of immediate Temple surroundings is the proposal to form a 20-member Bodhgayā World Heritage Buffer Zone Management Authority that would include the chief monk of Bodhgayā Temple Management Committee, executive officer of the Bodhgayā Nagar Panchayat, executive engineer of the Public Works Department, Gaya SSP, Archaeological Survey of India Patna Circle Superintendent, representative of urban development and forest departments, a representative of UNESCO, director of state archaeology, besides five persons nominated from different fields. Almost all the proposed members are not locals and are posted in Bodhgayā for a specific period. Hence, it is likely that they cannot fully understand the real problems of the residents and businesspersons of the neighbouring villages directly affected by the demarcation of the buffer zone around the Mahābodhi Temple complex.

Although the multivalent sacred site of the Mahābodhi Temple seemed peaceful and harmonious on the surface, tensions and conflicts simmer beneath this outer layer between the local and foreign Buddhists concerning divergent ritual practices that are sometimes incompatible with conservation values, such as painting and draping of the Buddha statues; a large gathering of monks under the Bodhi Tree for chanting that causes imminent danger to the Tree through unnatural soil compaction and noise pollution. In addition, a sense of apprehension is felt between Hindus and Buddhists while performing their religious rituals inside the Mahābodhi Temple complex. After more than a decade of the Mahābodhi Temple complex listing as a World Heritage Site, the statement of conservation report submitted by the State Party to World Heritage Centre and the advisory bodies in 2014 stated the following factors affecting the property:

- i. Management systems/management plan
- ii. Ritual/spiritual/religious and associative uses.

After analysing the submitted report by the State Party, the Committee of conservation experts highlighted that while the buffer zone has been demarcated, no information has been provided concerning the regulatory measures that need to be adopted to protect the wider setting. Moreover, the Committee requested the State Party to expedite the completion of the Management Plan, the formal adoption of the buffer zone together with regulatory measures and the submission of a minor boundary modification of the property to formalise its buffer zone.

In 1891, Anagarika Dharmapāla started his bloodless crusade of peace initially to re-establish the Buddhist Mission and to set up a college in Bodhgayā on the lines of the ancient Buddhist University in Nálanda. However, his mission changed its original course and soon the Temple acquisition and its liberation from the hands of the Hindus became his central aim that remained the same until he died in 1933. What prompted his change of mind would be difficult to ascertain but judging from the subsequent events that took place during Dharmapāla's lifetime and even later, it could be deduced that several Buddhist authorities were unhappy with the independent Indian government's idea of sharing the control of the sacred Mahābodhi site with their Hindu compatriots and, even today, they campaign for the total control of the sacred place.

Undoubtedly, a sacred heritage site has several uses. From this point of view, the Mahābodhi Temple complex is a fitting example to demonstrate how the capacity to control the sacred heritage could also control the identity of the community associated with it and how a community interacts with other communities at different socio-political levels. The ability to control the processes of (re)construction and remembering memories and narratives perceived as significant and authentic by various religious authorities and elitist individuals have been fundamental to the land claims surrounding the Mahābodhi Temple complex as well as to profess religious legitimacy.

It is believed that the present Bodhi Tree in the Temple complex is an offshoot of the original Tree under which the Buddha attained enlightenment. It is undoubtedly the most revered object in the whole complex but then again, as illustrated in this study, it has been the centre of several controversies in recent years, such as the alleged cutting off one of its branches by the Temple authority, which was sold to foreign pilgrims for a considerable sum; several versions concerning the Bodhi Tree's health; the issues of damage to the Tree by large Buddhist gatherings to perform rituals under it; and beautification works done around the Tree, specifically laying new stone paving around its base has been causing considerable damage to its roots. Interestingly, instead of working towards rectifying the problems related to the Holy Tree, Sri Lankan Therāvada Buddhists, together with the Mahābodhi Society of India, recently proposed to plant another Bodhi Tree, a sapling of the Bodhi Tree from Anuradhapura in Sri Lanka, which most of Lankan Buddhists consider as the 'original' since it is the direct descendant of the tree under which the Buddha attained enlightenment. This move certainly did not go well with the Hindu majority of Bihar, who accused the Mahābodhi Society of creating doubts in the mind of pilgrims about the authenticity of the existing Tree at Mahābodhi Temple by planting another Bodhi Tree in the Temple compound. Several Hindu religious organisations questioned the Mahābodhi Society's proposal and alleged that this plan was hatched to control the most sacred site of the Buddhists around the world symbolically. After several months of waiting for permission to plant the tree sapling in the Temple complex, this matter was finally resolved when the Mahābodhi Society decided to plant the Tree sapling brought from Anuradhapura in their compound surrounded by a magnificent stupa.

The ritualistic worship of trees as an abode of tree deities (*vruksha devata*) was prevalent in ancient India even before the advent of Buddhism. Sujata's offering of milk-rice to the bodhisattva sitting under a banyan tree on the eve of his enlightenment in the belief that he was none other than the tree deity residing in that particular tree is a befitting example of the prevalent ancient ritualistic tradition. Nonetheless, Hindu pilgrims offering *pinda dana*(literally: rice ball offerings), or performing other Hindu rituals as per their *Vedic* scriptures under the second Bodhi tree, which was planted in 1881 by Cunningham at a short distance from the original Bodhi Tree, are seen by the Buddhist pilgrims as tourists who are at the wrong place performing inappropriate rituals. The Bodhi Tree is sacred to both Hindus and Buddhists, but to consider it as the symbol related to the Buddha and Buddhists only would be wrong and points to the introverted nature of the concerned authorities.

In August 2012, another Bodhi tree plantation news near the main Temple complex was in the local media. This time the Bodhi tree was planted in the middle of the Kalachakra ground by His Holiness the 17th Gyalwang Karmapa supported by the Hotel Association of Bodhgayā, which predominantly comprises Hindus. The Kalachakra maidan (literally: ground) is presumably the most extensive open ground near the main Temple where His Holiness the Dalai Lama holds the Kalachakra initiation ceremony. According to the Bodhgaya Temple Management Committee (BTMC), the Kalachakra maidan was entrusted to them for management and upkeep by the State authorities, but according to the Hotel Association and Bodhgayā Nagar Panchayat, the ground legally belongs to Bodhgayā Nagar Panchayat. The BTMC officials seemed unfazed by the plantation and were quite sure that the matter would die its natural death. However, a few days after the plantation, the Hotel Association leaders were summoned by the then-District Magistrate of Gāya (the ex-officio Chairperson of the BTMC) and were cautioned not to create confusion by planting another Bodhi tree in the vicinity of the Temple complex. Interestingly, the new sapling disappeared within a week of its much-hyped plantation.

In 2002, the Mahābodhi Temple was designated as a UNESCO World Heritage Site (WHS). During this process, a boundary (core zone) was demarcated that

defined the limit of this sacred place and the significance of this sacred site was reinvented based on its outstanding universal value, which was heavily informed by the WHS status. A meaning-laden and socially constructed place such as the Mahābodhi and its surrounding areas, which acted as a medium for events in Bodhgayā in the past and present, could only be seen as inter-related, not divorced from each other. This sacred landscape of Bodhgayā, which addresses the entire ensemble of religious structures and landscapes, reinforces the diversity and plurality of the Mahābodhi Temple's heritage. The blatant disregard of the 'living' heritage of Bodhgayā and its capacity for continuity and change during several restorations and development plans in the past by the concerned authorities could be seen as to dominate, limit and control the sacred experience of the place and its environs by the pilgrims, tourists and locals.

The information dossier for the nomination of the Mahābodhi Temple as a UNESCO World Heritage Site (Anon 2002), which was prepared by the government of India, highlighted the Temple complex's outstanding universal value as "it is one of the most revered and sanctified places in the world. This is the hallowed spot where the ascetic Prince Siddhartha attained enlightenment to become the Buddha..." Even the World Heritage Site description states that "The Mahābodhi Temple Complex is one of the four holy sites related to the life of Lord Buddha and particularly to the attainment of enlightenment. The first temple was built by Emperor Asoka in the third century BCE and the present temple dates from the fifth or sixth centuries CE. It is one of the earliest Buddhist temples built entirely in brick, still standing in India, from the late Gupta period" (UNESCO 2002). It is not only the inscription and nomination dossier but also the subsequent city development plan, site management plan and other official heritage discourses, which failed to mention the shared aspect of sacred Bodhgayā. While almost all the management/development plans refer to Bodhgayā as a 'living' religious site, yet all of them neglect that its vitality is also due to the overlapping religious interests of the Hindus, Buddhists and Muslims,⁵ which may or may not be the same as stated in the Statement of Outstanding Universal Value. It could be argued that the interaction of the Mahābodhi Temple with the ongoing ritual practices and together with the prevalent social activities in and around the holy land of Bodhgayā have created a dynamic environment that would keep the power of the place alive even without any World Heritage Site designation. To preserve the soul of the Mahābodhi World Heritage Site, it would be pivotal to preserve the built form of the Temple and its surrounding structures as well as to maintain the

⁵ As per the Population Census 2011 of Bodhgayā Nagar Panchayat, Musilms are the second largest population (8.85%) after Hindus (90.23%). Buddhists make up only 0.41% of the total population. Interestingly, scholars (and even authorities) have overlooked (either intentionally or unintentionally) the presence of Muslim population in Bodhgayā. As per the *Imam* of Jama Mosque in Bodhgayā, the Muslims have been there since at least fifteenth century CE and the local mosque, which itself is a large structure, owns a great extent of land adjacent to the WHS boundary of the Mahābodhi Temple.

dynamics of rituals that occur around it, which provide it with the distinctive, vibrant character that does not require unsolicited safeguarding.

The Chief Minister of Bihar, Nitish Kumar, in a rally on October 2, 2012, said that the "Economic development of Bihar was the key to India's stride towards becoming a global superpower" (PTI 2012). Although Bihar has turned into one of the fastest-growing states in India during the past few years, the economic division between the poor and rich has widened significantly. This imbalance is visible in the poverty-stricken hamlet of Bodhgayā where beggars are a common sight around the World Heritage Site (WHS) Temple complex. Although the WHS designation in 2002 provided joy to the locals, it was short-lived. Since 2002, the residents have been living in constant fear of relocation and losing their livelihoods. Their apprehensions are genuine as they have been relocated thrice in the name of archaeological research or development since the passing of the Bodhgayā Temple Act in 1949. However, nothing much has happened to date (October 2017) and yet the flourishing villages were demolished and the local communities and businesses are often displaced, citing various national interests (Figs. 6 and 7). The Citizens Forum (*Nagarik Vikas Manch*) of Bodhgayā made a passionate appeal on February 24, 2011, to the visiting UNESCO World Heritage Committee representatives to make sure that the residents and small businesses around the Temple complex should not be displaced, citing development reasons by the local authorities, so that



Fig. 6 This site adjacent to the Mahabodhi Temple, known initially as Taradih village, was home to around two thousand people. In 1980, the entire village was relocated for an archaeological excavation, during which the remains of seven cultural phases from the Neolithic to Pāla Period were found. This site was lying neglected since the end of excavation in 1989. *Source* Joshi (2011)



Fig. 7 In 2015, the Archaeological Survey of India decided to spend INR 47 million of taxpayers' money for its beautification and development as an archaeological park. *Source* Joshi (2011)

their mother—and—childlike relationship with the sacred place be maintained. On March 11, 2008, in another appeal to the Bihar State Tourism Development department, the residents warned of committing mass suicide if their shops, located near the Temple, were relocated in the name of beautification, as per the City Development Plan of 2008. The World Heritage Site and subsequent heritage discourses seem to be working towards reconstructing univocal authoritative histories. These reconstructions and projections of the selective Buddhist history of Bodhgayā are used by the authorities to create a sense of universal value among different dissonant stakeholders and promote the economic benefits of the cultural heritage site for particular groups. However, there are several examples of unrest and anxiety that currently prevail in the local population of Bodhgayā, who fear that heritage conservation and development plans undermine their 'own' control of the place and create more economic opportunities for wealthy outsiders.

The unrest and conflict surrounding the sacred Mahābodhi Temple took a drastic new turn when on July 7, 2013, a series of ten low-intensity bombs exploded in and around the Temple complex in the early hours of morning concurrently with the meditation and *sūtras* chanting at the Temple's sanctum. However, no one was reported dead, but blasts injured several pilgrims and monks. Nominal damage was reported to structures in the Temple complex, but the main Temple and the Bodhi Tree remained unaffected, as declared by the Archaeological Survey of India. Several political and religious leaders from all over the world condemned the attack. The Indian security agencies soon described it as a terrorist attack and put an end to the speculations that it could be a sectarian act by religious fundamentalists. The attacks at Bodhgayā illustrate the real and problematic context within which the Mahābodhi Temple complex is situated. Immediately following the blasts, several drastic and hurried 'top-down' measures taken by the authorities following the July 2013 blasts acted as the last nail in the coffin for the locals. Following the blasts, the fifty-eight local shops near the Temple complex, which used to serve mainly the pilgrims and tourists, were demolished by the local authority citing that gathering people around the shops was a significant threat to the security of the Temple. The shopkeepers were given short notice to vacate the premises and to which most of them were against. They even filed a case against their forceful eviction in the High Court of Patna, but before the judgement was announced, the shops were demolished on July 25, 2013 (Fig. 8) and the affected businesses were left to find an alternate location or even another livelihood. Most of them are still struggling to cope with this reality and some of them are even doing small jobs to earn a living.

While the local authority announced that after reclaiming the place where the local shops existed, it would be used for a permanent entrance ticket counter and visitor facilities, etc., however, until March 2015, no such visitor facilities were being built and the entire area was only being converted into super spacious public toilets. Currently, the so-called visitor facilities are constructed on the public footpath adjoining Jai Prakash Narayan Park. In addition, the local authorities built a high compound wall surrounding the entire area, clearly demarcating their



Fig. 8 The fifty-eight local shops outside the Mahābodhi Temple complex entrance were demolished on July 25, 2013. *Source* Joshi (2013)

authority and dividing the locals and the Temple complex. It is important to note that the affected shopkeepers were offered rented shops by the local authorities in a newly built shopping complex around one kilometre away from their previous now-demolished shops. This compensation did not come cheap, though, as the monthly rental for the shops being offered was around INR 3000 and the earlier rental paid by the shopkeepers were in the range of INR 800–1000 depending upon the location of their shop.

As if the demolition was not enough for the locals, the authorities built new high walls creating new boundaries between the Temple and the locals. They even increased the height of existing compound walls all around the Temple complex. In order to legitimise the construction of the new boundary walls and encourage 'Buddhification' of the entire area, the Bodhgayā Temple Management Committee has installed stone panels depicting scenes from the life of the Buddha at the plinth level of the newly constructed walls (Fig. 9).



Fig. 9 New boundary walls around the area where the now-demolished local shopping complex existed earlier. These walls are adorned with stone murals depicting the Buddha's life. *Source* Joshi (2015)

7 Conclusion

Throughout this chapter, it has been argued that people's conceptions about sacred and different interpretations of religious rituals are subjected to continuous alteration and re-invention by ever-evolving religious practices. Hence, the question arises as to "how to establish the authenticity of religious rituals when they are fluid, situational and transient?" Undoubtedly, the meaning of ritual is complex and any attempt to define an all-inclusive definition of it is a riskier task that is bound to fail. However, considering the context of the Mahābodhi Temple it seems a more explicit working definition of religious ritual for use in this particular context may be needed and this should be worked out by an appropriate body, equally composed of all stakeholders. Religious rituals can be compared to stage plays as both are performative and have evolved with time and continually changing human aspirations. They are central to almost all religions and are often used to form social and political control of a defined community. Rituals are often used by dominant religious authorities and political institutions to construct (and sometimes reconstruct) the meaning of sacred space and thus help to create the sense of belonging for a community, intentionally or otherwise, it excludes others from belonging there, thus, introducing a symbolic and sometimes physical boundary between a religious denomination and outsiders. The Mahābodhi Temple is a fine example of this (re)construction that rapidly transformed from a shared multivalent site into a fiercely contested sacred site with significant support from the Orientalist construct of Buddhism.

UNESCO's decision to put the Mahābodhi Temple complex on its World Heritage List fifteen years ago was a moment of victory for heritage brokers who had been pushing to attain that status for years. Throughout this chapter, it has been illustrated that over time, this so-called prestigious designation did far more damage to the heritage of the locals and divided them into various perceived boundaries. The authorities would claim that heritage conservation has been under control and as per the UNESCO's guidelines, but the actual situation on the ground is significantly different, as illustrated above.

Since the Mahābodhi Temple complex got into the listing in 2002, the historic environment is increasingly seen as a commodity that could be used to profit for the benefit of only a few people who could afford to pay a considerable price to enjoy the luxuries of religious heritage. The concept of heritage seems to be limited mainly to the World Heritage Site boundary that emphasises only on 'monument' rather than the varied religious activities that happen around the immediate surroundings of the monument and the contribution of the local people to the historic environment. Furthermore, the present concept of conservation is still very much limited to mere 'preservation' rather than to embrace 'enhancement.' Looking at the current state of heritage in and around the Mahābodhi Temple complex, conservation must be seen as managing change and public engagement should be of fundamental importance in the process of understanding the values and places for the present and future generations.

The question to ask is, where do we go from here?

The answer is undoubtedly complex, but what is essential is to start a transparent dialogue. To begin by critically exploring the role of different heritage brokers, development and funding agencies, advocacy organisations, public participation in heritage development and map the diverse 'actors' in such operational networks. This should be done mainly to explore the complex relationships of heritage to the field of development in Bodhgayā. An open and reasoned argument is vital for an informed decision regarding conservation and development; hence, public engagement must be a part of the entire conservation process. The historic environment should not be treated as an economic commodity only but as a contributor towards the growth of sustainable communities. This could be done by creating a flourishing local economy to provide jobs for the locals; a safe and healthy local environment where people have a choice of well-designated public and green space; buildings that can meet different user needs over time; a diverse, vibrant and creative local culture, encouraging pride in the community and cohesion within it; and 'sense of place.'

References

- All India Bhikkhu Maha Sangha (2012) Return the Mahabodhi Mahavihara to Buddhist control: Revise the Bodh Gaya Temple Act of 1949
- Anon (1892) The Maha-Bodhi Society: its constitution, rules and list of officers. Calcutta. In: Dharmāpala AH (ed) The Maha-Bodhi and the united Buddhist world: journal of the Maha-Bodhi Society, vol. I. The Maha-Bodhi Society, Calcutta, pp 1–2
- Anon (1925) The Maha-Bodhi: journal of the Maha-Bodhi Society, vol. XXXIII, no.4. The Maha-Bodhi Society, Calcutta, pp 127–180
- Anon (2002) Information dossier for nomination of Mahabodhi Temple complex, Bodhgaya as a world heritage site. Department of Tourism, Ministry of Tourism and Culture, Government of India, New Delhi
- Bhikkhu T (1994) Kalama sutta: to the Kalamas. In: Tipitaka—The Pali canon. Access to Insight (Legacy Edition). http://www.accesstoinsight.org/tipitaka/an/an03/an03.065.than.html. Accessed on 13 Aug 2012
- Bhikkhu T (2004) Ariyapariyesana sutta: the noble search. In: Tipitaka—The Pali canon. Access to Insight (Legacy Edition). http://www.accesstoinsight.org/tipitaka/mn/mn.026.than.html. Accessed on 17 June 2012

Coomaraswamy AK (1992) Essays in early Indian architecture. Oxford University Press, Delhi

- Doyle T (1997) Bodh Gayā: journeys to the diamond throne and the feet of Gayasur. Dissertation, Harvard University
- Eliade M (1957) Le sacré et le profane. Éditions Gallimard, Paris. English edition: Eliade M (1959) The sacred and the profane: The nature of religion (trans: Trask W R) Harcourt Brace and World Inc, New York
- Émile D (1912) Les formesélémentaires de la vie religieuse: Le systèmetotémiqueenAustralie. Alcan, Paris. English edition: Émile D (1964) The elementary forms of the religious life (trans: Swain JW) George Allen and Unwin Ltd. London

- Geary D (2009) Destination enlightenment: Buddhism and the global bazaar in Bodh Gaya, Bihar. Dissertation, University of British Columbia
- Govinda AL (1976) Psycho-cosmic symbolism of the Buddhist stupa. Dharma Publishing, Berkeley
- ICOMOS (1994) The Nara document on authenticity. In: Nara conference on authenticity. International Council on Monuments and Sites. http://www.icomos.org/charters/nara-e.pdf. Accessed on 13 Aug 2011
- Joshi N (2019) The Mahabodhi Temple at Bodhgaya: Constructing sacred placeness, deconstructing the 'great case' of 1895. Manohar Publishers, Delhi
- Jumsai M (1987) History of Thailand and Cambodia: from the days of Angkor to the present. Chalermnit Press, Bangkok
- Kramrisch S (1976) The Hindu temple: Vol. I & II. Motilal Banarsidass Publishers PrivateLimited, Delhi
- Livingston JC (2005) Anatomy of the sacred: an introduction to religion. Pearson Education, Inc, New Jersey
- Lopez Jr DS (2009) Buddhism and science: a guide for the perplexed. University of Chicago Press, Chicago and London
- Marx K, Ruge A (eds) (1844) Deutsch-Französische Jahrbücher. Bureau der JahrbücherOrt, Paris. English edition: Marx K (1982) Critique of Hegel's 'philosophy of right' (trans: Jolin A, O'Malley, J). Cambridge University Press, New York
- Meister MW, Dhaky MA (eds) (1986) Encyclopaedia of Indian temple architecture: Vol. I & II. Oxford University Press, India
- Michell G (1977) The Hindu temple: an introduction to its meaning and forms. Harper and Row Publishers, New York
- Nugteren A (1995) Rituals around the Bodhi-Tree in Bodhgayā, India. In: Platvoet J, van der (eds) Obeyesekere G (1970) Religious symbolism and political change in Ceylon. In: Modern Ceylon
- studies, vol 1, no. 1. Peradeniya, pp 43-63
- Okakura K (1903) The ideals of the east. J Murray, London
- Otto R (1917) Das Heilige Über das Irrationale in der Idee des Göttlichen und sein VerhältniszumRationalen. Trewendt und Granier, Breslau. English edition: Otto R (1936) The idea of the Holy: an inquiry into the non-rational factor in the idea of the divine and its relation to the rational (trans: Harvey JW). Oxford University Press.
- PTI (2012) Bihar's development key to India's stride to become superpower: Nitish Kumar. In: The economic times—politics and nation. http://articles.economictimes.indiatimes.com/2012-10-02/news/34217996_1_special-category-status-nitish-kumar-inter-ministerial-group. Accessed on 3 Oct 2012
- TNN (2012) Supreme Court admits Buddhists' plea to manage Mahabodhi Temple at Bodh Gaya. In: The Times of India. http://timesofindia.indiatimes.com/india/Supreme-Court-admits-Buddhists-plea-to-manage-Mahabodhi-Temple-at-Bodh-Gaya/articleshow/16497830.cms. Accessed on 15 Jan 2013
- Platvoet J, Toorn K (eds) (1995) Pluralism and identity: studies in ritual behaviour. Brill, Leiden, New York; Köln, pp 145–65
- Trevithick A (2006) The revival of Buddhist pilgrimage at Bodh Gaya (1811–1949): Anagarika Dharmapala and the Mahabodhi Temple. Motilal Banarsidass Publishers Private Limited, Delhi
- UNESCO (1996) Operational guidelines for the implementation of the world heritage convention. Intergovernmental committee for the protection of the world cultural and natural heritage. http://whc.unesco.org/en/guidelines/. Accessed on 13 Aug 2011
- UNESCO (2001) Proclamation of masterpieces of the oral and intangible heritage of humanity (2001–2005). In: UNESCO–intangible cultural heritage. http://www.unesco.org/culture/ich/index.php?pg=00103. Accessed on 7 June 2011
- UNESCO (2002) Mahabodhi Temple complex at Bodh Gaya. In: UNESCO World Heritage Centre. http://whc.unesco.org/en/list/1056. Accessed on 7 June 2011
- Vatsyayan K (1991) (ed) Concepts of space: ancient and modern. Indira Gandhi National Centre for the Arts, New Delhi

- von Droste B, Bertilsson U (1995) Authenticity and world heritage. In: Jokilehto J, Larsen KE (eds) Proceedings of the Nara conference on authenticity in relation to the world heritage convention, Nara, Japan, 1–6 November 1994: Proceedings. UNESCO World Heritage Centre, Paris, pp 93–116
- Watson W (1985) The architectonics of meaning: foundations of new pluralism. University of Chicago Press, Chicago



Nikhil Joshi is a Senior Lecturer in the Department of Architecture at National University of Singapore (Singapore). He received his Ph.D. in Architecture from National University of Singapore; M.A. in Conservation Studies (Historic buildings) from University of York (United Kingdom); and B.Arch. from University of Pune (India). He has provided consultancy in architectural conservation and community development in Singapore, Malaysia, Thailand, India, and United Kingdom (UK). Nikhil is a Fellow of the Royal Geographical Society, UK; and recipient of the Society for the Protection of Ancient Buildings Lethaby Scholarship, UK. His recent publications include The Mahabodhi Temple at Bodhgava: Constructing Sacred Placeness, Deconstructing the 'Great Case' of 1895 (2019); Managing change: Urban heritage and community development in historic Asian cities (2018, edited); Community voices: Preserving the local heritage (2016); and People + places: Exploring the living heritage of Songkhla old town (2016, edited).

Local Knowledge Education on School Students and Vernacular Landscape Identity Promoting: A Case of Dongshan Town, Suzhou, China



Juncheng Dai, Shangyi Zhou, Ruihong Zhang, and Shunying Tang

Abstract New cultural geography is concerned with the meaning of cultural landscapes. People living in different regions have their own unique understandings of vernacular landscape, which is a part of local knowledge. Youth may play a much important role in cultural protection of vernacular landscapes if they identify the meaning of vernacular landscapes. Based on constructivism theory and Tuan's concept of topophilia, our hypothesis is that the environmental perception of living experience impacts the school students' identity of the vernacular landscape much more than the local knowledge education. This study took Dongshan Town as the research area to prove our hypothesis. Dongshan Town is a famous old town in South China. The analysis results of the questionnaires are as follows. Firstly, local life experience is the constructivist base for the vernacular landscape identity of school students in Dongshan Town. Secondly, quantitative analysis shows a different result from qualitative analysis. Living experience impacts less in the quantitative result than in the qualitative result. So, the conclusion of this study is that the qualitative method is better to prove the hypothesis than the quantitative method. Although it supports Yi-Fu Tuan's viewpoint of topophilia again, we cannot say it is absolutely right in any instance.

Keywords Vernacular landscape \cdot Meaning of landscape \cdot Local knowledge education \cdot Textbook of local knowledge \cdot China

S. Zhou (⊠) Faculty of Geographical Science, Beijing Normal University, 19 Xinjiekouwai Street, Beijing 100875, China e-mail: shangyizhou@bnu.edu.cn

R. Zhang

S. Tang

© Springer Nature Singapore Pte Ltd. 2022

J. Dai

School of Culture and Communication, Central University of Finance and Economics, 39 Xueyuanwai Road, Beijing 100081, China

School of Electronic and Information Engineering, Liaoning Technical University, 188 Longwannan Street, Huludao, Liaoning 125000, China

School of Tourism and Geography Science, Qingdao University, 308 Ningxia Road, Qingdao 266071, China

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_14

1 Introduction

Landscape is one of the core concepts in cultural geography. Cultural geographers focus on the meaning of cultural landscape, as well as its identity. Traditional landscape research, based on the Berkeley School created by Carl Sauer, is concerned with settlement patterns, architectural form and other landscape features (Sauer 1925). In the 1980s, based on a criticism of traditional cultural geography, a new cultural geography was established which had a very different knowledge system (Cosgrove and Jackson 1987). It began to investigate cultural processes in some new ways, not merely studying cultural geography as "culture itself" (Jackson 1989). Such a shift in methodology contributed to a huge paradigm transition from spatial research on culture to cultural study on space (Crang 1998). Landscape was not only limited to physical form but also concerns about the interpretation of the meanings of landscape (Jones and Daugstad 1997).

The concept of cultural landscape basically includes dimensions about humanity, or in other words, it meets the needs of "culture" (Olwig 2002; Mitchell 1996; Cosgrove 1984). Cosgrove and Daniels focused on the analysis of symbolic meanings of a cultural landscape; they also used the theory of semiotics to explain the symbolic meaning of cultural landscape (Cosgrove and Daniels 1988). However, indigenous people and immigrants have different understandings of the local cultural landscape. Rossler suggests that people in different regions have different understanding of landscapes. For example, Americans have paid attention to the relationship between the preservation and human intervention of the original ecological natural landscape and mankind (Rössler 2006) (p. 349). Another case is that white and indigenous people have a different understanding of the ecological landscape of Australia (Hicks and Beaudry 2010) (pp. 427–439). In short, the concept of cultural landscape has multiple meanings, not only at productive and living levels, but also at institutional and ideological levels.

Vernacular landscape is a typical cultural landscape that was proposed by J. B. Jackson, one of the founders of the new cultural geography. To him, vernacular landscapes were shaped by the people who dwell in and engaged the place, which was distinguished from planned, constructed, commercialized and regulated landscapes. In this context, that vernacular landscape is identified with local custom, pragmatic adaptation to circumstances and unpredictable mobility (Jackson 1984) (xii).

With accelerated urbanization in recent years, Chinese vernacular landscapes are experiencing a crisis of disappearance, and a loss of vernacular style and features are being destroyed. Therefore, protecting the integrity and characteristics of vernacular landscapes and identifying the meaning of a vernacular landscape are the major challenges of China. According to the theory of place identity, both physical and social factors influence the inheritance of a vernacular landscape. More research on physical factors believe that architects and planners can strengthen local identity by highlighting self-expressed roles of the environment and pay more attention to personalized demands and private space (Krupat 1983). But, few researches on social

factors include age, race, class, gender, level of education, which could promote and generate both local and group identities. How these combinations of variables act on a local scale remains an issue that needs attention (Harré 2007).

Based on the perspective of constructivism, local experience is developed in a physical, socio-cultural environment. However, youth seem to be neglected during the construction process of vernacular landscapes. Youth in a society cannot be defined as "eternal." On the contrary, they should be considered "historical," living in a certain social and historical environment at a specific location and specific time (Graue and Walsh 1998). Few studies focused on the vernacular landscape meaning constructed by youth. Through surveying the school students' identity of the vernacular landscape, we seek to prove our hypothesis that the local living experience impacts the understanding much more than local knowledge education. This hypothesis comes from the concept of "topophilia" (Tuan 1974). Tuan gave a geographical definition of topophilia. He holds environmental perceptions in living experience, culture education as distinct in order to show how they mutually contribute to the formation of values.

Above all, this chapter would contribute to the debate of youth's (especially the school students) understanding of vernacular landscapes and their background in acquiring landscape meaning. Section 2 is the literature review of the studies of vernacular landscape, local knowledge education and place identity. Section 3 describes the research area. Section 4 introduces the analysis method. Section 5 shows the educational ways that tell the meanings of vernacular landscapes. Section 6 discusses the quantitative method that is used to prove the hypothesis and shows the result. Section 7 concludes that the qualitative method is better to prove the hypothesis than the quantitative method. Then, it follows a discussion and implications.

2 Literature Review

2.1 Vernacular Landscape

Jackson's contribution to the concept of vernacular landscape, as noted above, emphasizes the effect of human activities on landscape, which looks beyond formal architecture and into the political forces that maintain it (Roth and Eckert 2011). Research on vernacular landscapes attempts to find a more perceptual path to connect people and land and helps people understand that nature is conservative and humans are dynamic and pursue specific economic, esthetic and ethical goals. Such a vernacular landscape fits the needs of many people because of its function and symbolic value. The protection and heritage aspects of vernacular landscape have long attracted the attention of scholars around the world (Crowe et al. 1956).

Early studies, mainly on landscape patterns, were made by Sauerians. Influenced by the quantitative revolution in the 1960s, the research of vernacular landscape included a combination of quantitative and qualitative methods (McGrath 1998). In

the 1970s, R M Downs introduced the concept of a "behavioral revolution." It focused on two themes: spatial behavior and spatial perception. He introduced psychological factors into vernacular landscape research and explored the interaction between human society and the natural environment (Downs 1970).

Since the 1980s and affected by postmodernism, existentialism, idealism and many other trends in philosophy, vernacular landscape research in western countries has shifted to a humanist direction and triggered research on the diversity of rural life of different social groups. Many traditional villages in developed countries were abandoned or disappeared, and the vernacular landscapes in these countries had been changed significantly (Ruda 1998). Meaning of vernacular landscape became a priority. One typical case study is by D. C. Park and others studied Elora. It viewed the process of industrialization and modernization in Elora as being endowed with different cultural meanings. In the past, it was a dirty and dangerous village rampant with diseases. It changed into a holy land where people now enjoy a quiet, traditional rural life with rural memories (Park and Coppack 1994).

After the 1990s, sustainable development of rural settlements emerged at an important time. Ruda summarized the meaning of sustainable development of rural settlements, which results in: "first, the conventional balance between nature and build-in environment; second, the historical styles, traditional appearance, the scene of folk life, art and habits; third, all the values of local human communities and nations; fourth, the whole character of the countryside and its culture" (Ruda 1998). In recent years, the western studies of vernacular landscape have exhibited both the multidisciplinary intersection and integration directions. Our study builds on this trend by analyzing vernacular landscapes from dual perspectives of education and geography.

Totally, studies on the vernacular landscape contribute to the preservation and enhancement of landscape in three aspects: natural, agricultural and the built environment as a way of preserving and enhancing scenery (Eben Saleh 2001). Hoggart and Buller divide the existing value system of rural areas into three types: smalltown ideology, agrarianism and ruralism (Hoggart and Buller 1987). According to Miles, the vernacular landscape has four values. The first value expresses local life experience. Vernacular landscape includes the life experience of local people; life experience is the direct result of people's production and living based on their adaptation to the environment. The second value is ecological. The vernacular landscape can be considered as a secondary ecosystem which integrates with production and the life of rural people. Protecting the vernacular landscape means maintaining an ecological system of living. The third is an artistic value. Vernacular landscape, as an art of survival, provides an endless source for landscape designing. The fourth is a spiritual value. The vernacular landscape reflects native land-human relations which are both the natural and spiritual homes of humans and can arouse people's emotion. In the eyes of Crowe, the best vernacular landscape comes from a shelter which regards land value as a source of people's basic food. To people, landscapes that include wildlife bring visual pleasure and have an enjoyment and an economic value (Miles 2005).

One of the basic questions addressed in the study is: how the value of vernacular landscapes is inherited and created? Against the background of globalization and post-industrialization, landscapes can become the spiritual sustenance for a plan where a city faces development barriers and seeks to provide an optimistic blueprint for a pessimistic future (Miles 2005). The effective strategy for a vernacular landscape inheritance is to provide for both the production and protection of the local landscape. Festivals (as rural traditional celebrations and rural music festivals) are an important way of retaining a heritage (Luckman et al. 2009; Gibson 2002). On the other hand, many scholars suggest rural craft products can be a way to increase the heritage value of a vernacular landscape (McAuley and Fillis 2005; Paulsen and Staggs 2005). For example, Gibson used the so-called story of edge to reveal the role of creative industries in Australian rural areas (Gibson 2010).

Vernacular landscape is often related to rurality making (Floysand and Jakobsen 2007; Kneafsey 2001). It is often regarded as promoting a local image and supporting the local spirit. People in this context can regard landscape as biography, an objective of many historical societies. The protection of such a landscape can enhance group identity. Lowenthal believes that landscape can provide residents a sense of heritage in some places. He illustrated that point by identifying features of a landscape that play a role in creating a common memory of a long and a glorious past (Lowenthal 1975). Because vernacular landscape has rich historical meanings which are abstracted constantly, it represents the local spirit and becomes an important symbol of and for local identity. An important question is who decides what vernacular landscape and what meaning should be inherited when a city or town becomes modernized? The answers of many scholars are controversial because the landscape building process itself is full of power struggles and political struggles (Agnew and Duncan 2011) (p. 250). On one hand, landscape building is a bottom-up process. Relph insists that individuals or groups should have opportunities to create their own places to have the opportunities to improve these places and to live in these places and to make these places realistic and important (Relph 1976). On the other hand, Harvey points out that landscape localization is often impacted by social development, social control and the power of social order. Landscape planning, in their light, can become a tool which is used by authority to dominate ideology (Mitchell 2008).

It is necessary for people to understand the entire history and influencing factors of daily landscape before they try to change it or to enrich its usage, diversity and function (Eben Saleh 1996). In this context, local knowledge education is considered as a very important dimension of the vernacular landscape. Morin-Labatut and Akhtar acknowledged that traditional knowledge of the environment is a valuable resource for the protection and successful planning of a vernacular landscape (Morin-Labatut and Akhtar 1992). The meaning behind the cultural landscape can be defined as the idea attached to the landscape. Accompanying the waves of contemporary globalization, we find that local culture is under challenges from both deterritorialization and detraditionalization. Deterritorialization refers to the loss of the natural relationship between local culture and its hearth. Detraditionalization, on the other hand, means that history and tradition of rural villages lose value in their identity and sense of belonging. Today, we observe the power of local knowledge and local culture

is beginning to decline. Youth may be unconcerned if they identify with a certain vernacular landscape. For this reason, educating youth about local knowledge is an important objective of educational ministries (Cheng 2004).

2.2 Local Knowledge Education and Place Identity

With local knowledge education, youth can deeply understand their hometown, including their living environment, historical figures, landscapes, traditional arts and culture. Further, they can identify and learn to love their hometown. Such education will likely motivate their willingness to improve the natural and physical environments of their hometown. A textbook of local knowledge is compiled to achieve such local education targets that are set by the Ministry of Education in China. It mainly includes the geographical environment, cultural relics and historical literatures, local economy, cultural facilities, local products, transportation, trade, new achievements in industrial and agricultural development. (Danzberger and Usdan 1994).

It is generally viewed that the content of local knowledge education concentrates on two major features. One is knowledge education. The textbook of local knowledge is helpful in constructing a sustainable society. Local knowledge emphasizes "internal opinions of culture carriers." From the perspectives of "insiders" and "outsiders" of a culture, the textbook of local knowledge has to find its proper role. The textbook of local knowledge should be based on places which local people have familiarity and understanding that provides school students knowledge to improve their daily life. Such knowledge is also a common spiritual source which local people produced and shared in their long-term production and life practices. The local knowledge system is a text of history, legends, local chronicles, but also has oral forms about living customs and modes of production. Local knowledge education can also expand the influence of local knowledge and make it sustainable and usable for young generations. Class teaching is another way to disseminate local knowledge about practices used in everyday life (Gruenewald and Smith 2014). Another objective is moral education. It can enrich the teaching contents and help the school students grasp the core features about important local knowledge. Patriotism education also benefits from "topophilia" or attention devoted to one's hometown. This is an effective way to cultivate school students' hometown pride and responsibility. The youth are likely to internalize the emotions presented in a textbook of local knowledge and develop their own new emotional systems.

At present, the relationships between local knowledge education and local identity could be explained by several approaches. The first is "local uniqueness" that depicts and introduces local knowledge education as place uniqueness. That approach makes it possible for youth to distinguish themselves from others and helps people generate a sense of belonging toward a place, and it also provides a positive reinforcement with personal identification (Twigger-Ross and Uzzell 1996). The second approach is "local self-esteem" that claims local knowledge education does not only promote positive evaluations about their place, but also enhances self-esteem from their place.

It is the distinction between "loving a place" and "staying in this place because of makes me feel good" (Lalli 1992). The third approach is "multiculturalism" that emphasizes each type of culture is independent and unique. Local knowledge education, as an important aspect of multicultural education, believes that education should enable youth to understand their own and other cultures. The aim is to cultivate youth' awareness to help them respect their own and other culture. Youth in this way can further recognize and respect the existence and value of other local cultures (Arora and Duncan 1987) (p. 36). The fourth is a "reference group" approach which is based on cognitive processes. This process starts slowly with students' families and extends to their neighbors, schools, communities, hometowns and other reference groups and help them identify with the cultures of other groups (Grant and Sleeter 1993).

The four approaches are based on general identity theory and are used to focus on adult psychological mechanisms (Breakwell 1986). In this study, we try to find which factor is more important to school students' vernacular landscape identity (living experience or local knowledge education?) What method is suitable for finding the result (quantitative method or qualitative method?).

3 Research Area

Dongshan Town is in Wuzhong District, Suzhou, a city in Jiangsu Province (see Fig. 1). It is located on an elongated peninsula in Taihu Lake (太湖). Based on the favorable natural conditions, Dongshan is well-known within China for its rich agricultural economy. It sits at the base of a hill and is surrounded by Taihu Lake. Its climate is mild due to subtropical monsoon location and a microclimate affected by Taihu Lake. Dongshan on agriculture history that extends more than one thousand years. Many of its agricultural and aquatic products are well-known at home and abroad, such as Baisha loquat (白沙琵琶), Dongting ginkgo (洞庭银杏), Biluochun tea (碧螺春茶).

Dongshan Town is located in an economically developed area that was important in ancient China. Its well-developed economy enabled the people to construct marvelous religious buildings and private gardens. The economy development contributed to a high education level which makes many residents here were selected as officials through imperial examinations in ancient China. The former residences of these celebrities have become important local cultural landscapes. The town's famous cultural landscapes can be divided into two categories: former residences of celebrities and religious buildings (Table 1).

Among the former residences of celebrities in Dongshan, three are representative. The first is the former residence of Wang Ao (Ξ \underline{Z}) (Fig. 2) who was the prime minister of Emperor Zhengde (A.D. 1506–1521) during the period of 1506–1509. This was a typical building of the Ming Dynasty. Its building form and courtyard pattern were built in accordance with official regulations according to the ranks of

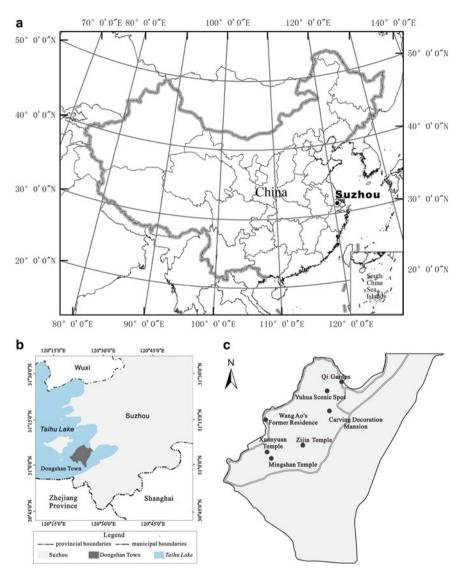


Fig. 1 a Location of Suzhou in China. b Location of Dongshan Town in Suzhou. c Map of main cultural landscapes in Dongshan Town. *Source* Drawn by Shangyi Zhou & Juncheng Dai

intellectuals in that time. This courtyard covers 5,000 square meters and was based on a model of local architecture in ancient times.

The second is private garden of Xi Qisun (席启荪, A.D. 1871–1943), namely Qi Garden (启园) (Fig. 3). Mr. Xi was a banker in the Republic China period (A.D. 1912–1949. It is an exquisite garden near the beautiful scenery of Taihu Lake, which is different from many private gardens with artificial ponds in Suzhou.

Table 1 Famous culturallandscapes in Dongshan

Cultural landscapes	Types	Period
Wang Ao's Former Residence	Former residences of celebrities	A.D. 1450 to present
Qi Garden	Former residences of celebrities	A.D. 1911 to present
Carving Decoration Manson	Former residences of celebrities	A.D. 1922 to present
Zijin Buddhist Temple	Religious buildings	A.D. 502 to present
Xuanyuan Temple	Religious buildings	The Tang Dynasty (A.D. 618–917)
Yuhua Scenic Spot	Historical building	The Tang Dynasty (A.D. 618–917)
Mingshan Hall	Historical building	The Ming Dynasty (A.D. 1368–1644)



Fig. 2 Wang Ao's Former Residence. Picture credit: Juncheng Dai



Fig. 3 Qi garden. Picture credit: Juncheng Dai

The third is the Carving Decoration Mansion (雕花楼) which is called the best building in south side of Yangtze River. Each detail symbolizes Chinese culture (Fig. 4).

Of these religious landscapes, Zijin Buddhist Temple (紫金庵) is representative (Fig. 5). It has a history of more than 1400 years; the statues of Buddha's disciples in this temple are the most famous in China. The clay sculpture of the goddess of mercy has three unique features. The first is the flowers on a canopy show the sense of real embroidery. The second is a handkerchief in the hand of the goddess. The outline of the fingers below the handkerchief shows the silk-like texture of the handkerchief. And, the third is her eyes that people surrounding her feel when she looks at each of them.

4 Methods

The chapter used both interviews and questionnaires to analyze and measure the importance of some factors, especially the local knowledge education, that influence the students' identity of vernacular landscapes. For understanding the local knowledge education, we consulted the Dongshan textbook of local knowledge and interviewed director of Dongshan Celebrities' Museum, local celebrities and teachers



Fig. 4 Carving decoration manson. Picture credit: Jing Zhang

in primary and middle school. For evaluation of school students' identity of vernacular landscapes, we developed a questionnaire for school students in Dongshan to investigate the general impression of vernacular landscapes and made a collective interview with some teachers who were responsible for the local knowledge teaching in primary and middle school.

Questionnaire used miles' classification to measure the school students' identity of the vernacular landscape in Dongshan Town (Miles 2005). The school students' vernacular landscape was taken as the dependent variable, while the local knowledge education which influence school students' identity of vernacular landscape is taken as independent variables. We also considered the living backgrounds of the school students and their daily life in Dongshan as the control variables (Table 2).

The investigation team handed out 134 questionnaires to the students in the Dongshan Central Primary school, Dongshan Moli Middle School and Dongshan Senior High School (Table 3). After evaluating the responses noted in Table 1, we conducted correlation and regression analyses by SPSS software.



Fig. 5 Zijin Buddhist Temple. Picture credit: Juncheng Dai

5 Local Knowledge Education and the Meaning Transmission of Vernacular Landscape

5.1 Textbook and Course Teaching

Local knowledge education in Dongshan is gained monthly through textbooks. The textbooks provide certain characteristics which are suitable for learning about their local place.

"To attach great importance of education regarding local knowledge, the textbook of local knowledge meets specific objectives. This is most important. Some neighboring towns surrounding Dongshan have a shorter history than Dongshan. For instance, Mudu (木渎) is a relatively new town. Among those towns, only Xishan (西山) Town has a textbook about local knowledge; its history is almost as long as that of Dongshan, but its local cultural resources are fewer than those of Dongshan. Those in Xishan Town learn from Dongshan. They began to know the importance of local knowledge education and wrote a textbook about local knowledge. Their textbook is Getting Know to Xishan Town." (Interviewee Mr. Yang is director of the local Celebrities' Museum).

The textbook for primary school students is called *Lovely Hometown* and is edited by local school teachers. It has four volumes and is given to primary school students,

Variable type			
Dependent variable	Decomposed contents on identity of vernacular landscape	Life experience Participated in what folk activities held by temples Ecological value Natural environment characteristics of Dongshan Geographical difference between Dongshan and its neighboring towns	
		Esthetic value Representative buildings in Dongshan	
		Spiritual value Famous figures and their former residences in Dongshan Stories of above famous figures Poems related to the landscape in Dongshan Sense of pride among Dongshan people	
Independent variable	Local education factors which influence inheritance of vernacular landscape	Characteristics in textbook about local knowledge	
		Students' familiarity with the textbook of local knowledge	
		Knowledge obtained by students directly through textbook of local knowledge The depth of local knowledge mastered by students	
		The number of the ways to learn about local knowledge	
		Grade in which students study	
Control variable	Daily life background of students	The living place of student (urban/rural)	
		Years lived in Dongshan	
		Occupation of students' parents	
		Kinship of the student's families with the distinguished families in Dongshan	

 Table 2 Factors influencing students' identity with vernacular landscape

Table 3Composition ofsurveyed students	Index	Attribution	Numbers
surveyed students	Groups divided by age	Grade 4 (ages 10–11)	46
		Grade 8 (ages 15–16)	50
		Grade 11 (ages 17–18)	38

with specific objectives including "promoting local culture and enjoying quality education." The contents in the textbook are divided into seven parts: (1) historical geography, (2) new look on constructions, (3) scenic spots and historical sites, (4) special local products, (5) stories about celebrities, (6) social conditions and (7) folklore. Four volumes are provided for primary school students from Grade 3 to Grade 6.

To promote local knowledge education for students in junior middle school, no special textbook is provided for teachers. The education administration of Suzhou did not provide any reference materials for teachers, so the teachers asked some general questions in the geographical examinations for second-year junior high students about local geography knowledge. Some local knowledge and vernacular landscapes about Dongshan are taught simply in class. But, it is unfortunate that students are not provided local history and other local knowledge in their courses of politics, literature, etc. The result is insufficient knowledge about vernacular landscapes in Dongshan.

The textbook of local knowledge for senior high school students is edited by school teachers. It has three volumes, including *Local Products and Folklores* - *History and Culture* and *Instruction Manual of Fieldwork*. Teachers play an important role in guiding students to read the textbook about local knowledge. Some geography teachers combine the regular geography textbook with the local knowledge textbook. They used Dongshan as a case study to construct geographical knowledge in the regular textbook required by the Ministry of Education, China. Typical case analyses deepen students' understanding of the meanings of vernacular landscapes.

In my opinion, if teachers want flexibility in instilling knowledge, it must be combined with actual local situations. If teachers are old and have a greater understanding of society, their interpretation of knowledge will be more useful and clearer. For example, the teacher can inform students that Dongshan's development depends on cultivation, aquaculture and tourism. They will learn that the local economy depends on hill lands and lake area. The local history is also very important. It includes the famous Prime Minister Wang Ao, General Mo Li, and four prominent families. The landscapes of their residence reflect the former prosperity of these four families. (said by Ms. Yang, a teacher in Dongshan Middle School)

Besides geography, other courses also incorporate components of local knowledge.

A teacher may guide students to measure the population and area of Dongshan in mathematics. A Chinese literature course should involve learning about local knowledge. In an English course, students can learn how to translate poems and the tourism handbook of Dongshan. A course in history can include more local stories because Dongshan is an ancient town. Some famous residences, gardens and temples were built in historical times. Human history can be traced back to ancient pre-human times. There is a relic place on $\Xi \amalg \square$ (Sanshan Island) which is the site of early ape humans. A politics course might also include contents on local knowledge. (said by Mr. Song, a teacher in Moli Middle School)

5.2 Other Education Ways of Vernacular Landscape

Firstly, schools in Dongshan used the famous place names of Dongshan to name the buildings and roads in the campus. For example, Yuhua Road and Moli Road in the high school are named after two famous scenic spots in Dongshan. Secondly, the teachers taught the students the meaning of the vernacular landscapes. The descriptions on the pictures and photographs offered by Dongshan Celebrities' Museum.

The Celebrities' Museum was built in the early 1990s and was enlarged in 2000. In fact, the Celebrities' Museum is just one part of Dongshan Historical and Cultural Museum. This museum shows more exhibits of Dongshan's history and also landscape photographs of the ancient villages in Dognshan. Each week, primary school students (there are fewer middle school students) come here to get to know about their communities, both by exhibitions and lectures. They might be inspired by their ancestors. The museum has many activities a year. Its impact on local education is great. (said by Mr. Yang, the director of the local Celebrities' Museum)

Thirdly, the students got information about the vernacular landscapes in class. The schools can also organize celebrity lectures and reports about local knowledge. The stories of local celebrities inform the students that they study diligently and are important persons who served the country and society. Their life stories endow specific landscapes in Dongshan with a rich humanist significance.

Under the plan of the Moral Education Department in my school, new students will be taught some knowledge about local culture and history in the first semester. Therefore, many students wrote very good essays which expressed their feeling of Dongshan. It can be said that the whole environment of this school influences the students' local identity. (said by Ms. Yue, a teacher in Dongshan Middle School)

5.3 Education on Meaning of Landscape

The landscapes of Dongshan have rich meanings. For example, the Carving Decoration Mansion is a rare material object for researching the modern and contemporary folk art of brick carving art in China. Scholars can see the carving techniques of the local school and the cultural meanings presented by brick carvings and wall paintings. For example, *Liuyi Well* (柳毅井) is one of the landmarks in Qi Garden. Its name derives from a myth of Legend of Liu Yi. This landscape expresses people's desire for beautiful love.

Based on our survey results, we conclude that education about landscape meanings is currently weak in primary and middle schools of Dongshan. This is mainly because the primary and middle schools devote more teaching hours to the subjects which relate to entrance exams in high school. As much as the general examination for all second-year junior students of middle schools in China includes local geography knowledge, some local geographical knowledge is taught simply in class. Vernacular landscape education often appears in the form of case studies in geographical class. For example, students are introduced to Dongshan's landforms, climate, vegetation, etc. Sometimes, teachers also lead students to climb hills to understand the local natural landscape. Another case study shows the phenomena that the yields of waxberries are less when there is much rainfall. It makes students realize the important role of the natural environment in their daily life and local economy. Due to limited class hours, we learned that geography teachers pay less time to teach the meaning of cultural landscapes.

6 Influence of Local Knowledge Education on the School Students' Identity of the Vernacular Landscapes

6.1 The Results

The investigation found that there are different levels of vernacular landscape identities among youths in the primary, junior and high schools. The Carving Decoration Mansion (49%), Qi Garden (16%), Zijin Temple (15%), Wang Ao's Former Residence (8%), Yuhua Scenic Spot (5%), Mingshan Hall (4%), Xuanyuan Temple (3%) are several landscapes with the highest identity levels (Fig. 6).

To examine the relationship between students' vernacular landscape and the education level of local knowledge, we conduct regression analyses of six independent variables and four control variables, as well as the extent of students' background and heritages of those landscapes. We used the regression method to identify the major influencing factors. Three were identified as being most important. The adjusted R^2 was 0.369. In general, it means that the model has a certain goodness-of-fit (Table 4). The three most important factors were the grade level of the student. The depth of knowledge obtained through a textbook about local knowledge and students' familiarity with the textbook about local knowledge.

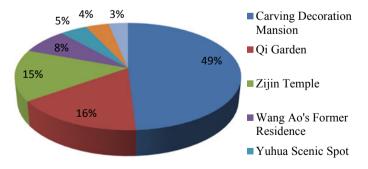


Fig. 6 Vernacular landscapes identified by the students

Model	del R R square Adjust		Adjusted R square	Std. error of the estimate
1	0.522 ^a	0.273	0.267	0.63053
2	0.603 ^b	0.364	0.354	0.59179
3	0.619 ^c	0.383	0.369	0.58503

 Table 4
 Overall situation of regression model on the school students' identity of the vernacular landscape

^aPredictors: (Constant), Grades

^bPredictors: (Constant), Grades, the functions of textbook of local knowledge

^cPredictors: (Constant), Grades, the functions of textbook of local knowledge, student's familiarity with textbook of local knowledge

In a further analysis, we learn how factors influence school students' identity of vernacular landscape (Table 5). The coefficient of the first influencing factor (i.e., students' grades in school) is 0.429, which is statistically significant, and has a positive relationship with the extent of their identity with local knowledge. The coefficient of the second most important influencing factor is 0.381; it also has a positive relationship with the dependent variable. These two factors are significant at the 0.05 level. The coefficient of the third influence factor in the regression model is 0.333.

The results show that the extent of students' knowledge of vernacular landscapes is related to their grade, knowledge obtained through textbooks and their familiarity with textbooks of local knowledge. It also shows that one of the ways students learn

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		В	Std. error	Beta		
1	(Constant)	1.207	0.145		8.330	0.000
	Grade	0.489	0.069	0.522	7.035	0.000
2	(Constant)	0.571	0.200		2.858	0.005
	Grade	0.450	0.066	0.481	6.848	0.000
	The functions of textbook of local knowledge	0.475	0.109	0.305	4.342	0.000
3	(Constant)	0.349	0.226		1.541	0.126
	Grade	0.429	0.066	0.458	6.506	0.000
	The functions of textbook of local knowledge	0.381	0.118	0.245	3.234	0.002
	Student's familiarity with textbook of local knowledge	0.333	0.166	0.154	2.011	0.046

Table 5 Coefficients of regression model on students' inheritance of vernacular landscape

about the heritage of vernacular landscape is the school education system, which includes courses and other activities. The explanation of the first factor shows that a higher grade means a higher ability of understanding vernacular landscapes. The memory of landscapes links people with their own past. As the age level increases, the relationship becomes closer (Hidalgo and Hernandez 2001). The explanation of second factor is that the more functions of textbooks of local knowledge benefit more on students. The explanation of third factor is that the more students learn from the textbooks of local knowledge, the more meaning a landscape has for them.

There are four control variables related to students' living experience. Three of them are the students' family background (the years of the students' family have lived in this town), the occupation of students' parents and living in urban or rural areas. They have less influence on the students' understanding of vernacular landscape history. This result is not significant as expected. The school students do not understand the vernacular landscape passively. It is just like Lim and Barton reported that students adapt to their living environment through a series of subjective cognitive actions and then establish a relationship with landscape (Lim and Barton 2010). But, the number of years that youth have lived in a local place is not significant. Their interactive relationship with local landscape is relatively basic, so their individual life experiences are not the main determinant for their heritance of vernacular landscape. We interviewed some students and found that they identified the vernacular landscape because of their specific individual living experience. For example, Wang Ao is the ancestor of a student's family. Another example is that one student's father was working in the Carving Decoration Mansion. And, the interview told us when the school students returned home and saw the vernacular landscape again, and they incorporated what the teachers taught them in class. It can help them gain a more in-depth understanding of the vernacular landscape.

6.2 Explanation on Constructivism

We use constructivism to explain students' identity with their vernacular landscape. Constructivism was first proposed by J. Piaget in the 1960s. He believed that children's identity is an active construction process based on their existing knowledge and experience of the subject. On that basis, their own cognitive structure is developed by interaction with the environment. In the two processes of "assimilation" and "compliance," individuals can construct a new knowledge system from experiences. The former refers to the expansion of knowledge structure, while the latter refers to changes in the structure of knowledge itself (Piaget 1960).

Constructivism also supports the notion that youth's participation in observation is valuable as it enhances their sense of place (Matthews 1992). The school students absorb knowledge most quickly in their adolescence. They also build up vernacular concepts and a sense of place in this period. Vernacular landscape education is an approach to help build school students' cognitive systems. The formation of place identity is also a part of school students' learning process. Instead of passively adapting to their environment, youth assume a series of subjective cognitive actions to establish a relationship between them and their social and natural environment. Environment is not an objective phenomenon, but it is interpreted and constructed by youth based on their own knowledge and experiences. From a constructivist view angle, sense of place is an integrated product based on common actions of their natural, social and cultural backgrounds. To understand school students' sense of place at each age, it is necessary to understand their life background, behavior, and knowledge structure from the perspective of historical development. The result of our research on vernacular landscape in Dongshan case provides an example of constructivist education.

7 Conclusion and Discussion

The two results of both quantitative and qualitative analyses are as follows. Firstly, the school students did not passively accept their environment; rather, they tried to incorporate different cognitive activities that adjust to the influences of place. Place is not an objective phenomenon, but as we have observed, it is interpreted and reconstructed by the teenagers. Therefore, the development of school students' sense of place is regarded as a dynamic process of experience, interaction and feeling that emerge with living (Chawla and Salvadori 2003). Understanding of vernacular landscapes and interpretation of their meanings will help youth not only to identify their hometown, but also help them to build place attachment with their hometown.

Secondly, quantitative analysis shows a different result from qualitative analysis. The quantitative analysis shows that the students' identity of the vernacular landscapes comes mainly from local knowledge education, especially the textbook of local knowledge, even though many vernacular landscapes exist in their everyday life. The students of higher grade have better understanding of the vernacular landscapes. The school teachers rely on a course of local knowledge with a textbook to help the school students to construct their local knowledge. But, the interview (qualitative method) of some students shows that their constructivist foundation of local identity is their specific living experiences. One of the quantitative results is that the students of higher grade have better understanding of the vernacular landscapes. It is indirect evidence that living experiences impact the students' understanding of the vernacular landscapes.

So, the conclusion of this study is that quantitative analysis of constructivism cannot get more detailed information of local cultural identity. The qualitative method of interview could find the individual information of a specific person's living experience, which may show the real dynamics of the vernacular landscape identity. This study confirms the opinion of Yi-Fu Tuan that the meaning of a place comes from the subjective feeling of an individual. The perception and cognition of a person are difficult to be described in a scientific or quantitative way. The discussion of this study is that we have not tried other scientific methods to dig out the dynamics of local identity and did not design a precise quantitative analysis framework with more

factors. So, the conclusion needs to be tested in the near future under the enthusiasm for "big data," especially for big data of a person.

Acknowledgements This research is supported by the Project of National Natural Science Foundation of China (41771148, 42071194). We acknowledge the help provided by the undergraduate students. They are Yongyun Shi, Dandan Liang, Feiyan Ma, Haiyan Nong. We are also thankful for the help from the teachers in Dongshan High School, Donshan Moli Middle School and Central Primary School. They are Xuelong Li, Lixai Zhou and HongxinQiu. Mr. Weizhong Yang, the head of Dongshan Museum, gave us a lot of information. Prof. Stanley D. Brunn polished the English and provided some useful comments.

References

- Agnew JA, Duncan JS (2011) The wiley-blackwell companion to human geography, vol 16. Wiley, New York
- Arora RK, Duncan CG (1987) Multicultural education: towards good practice. Routledge, London Breakwell GM (1986) Coping with threatened identities, vol 904. Methuen, London
- Chawla L, Salvadori I (2003) Children for cities and cities for children: learning to know and care about urban ecosystems. Springer, Heldelberg, pp p294-314
- Cheng YC (2004) Fostering local knowledge and human development in globalization of education. Int J Educ Manage 18(1):7–24
- Cosgrove D, Daniels S (1988) The iconography of landscape: essays on the symbolic representation, design and use of past environments, vol 9. Cambridge University Press, Cambridge
- Cosgrove D, Jackson P (1987) New directions in cultural geography. Area 19:95-101
- Cosgrove DE (1984) Social formation and symbolic landscape. Wiley Online Library
- Crang M (1998) Cultural geography. Routledge, London
- Crowe S, Crowe S, Crowe S (1956) Tomorrow's landscape. Architectural Press, London
- Danzberger JP, Usdan MD (1994) Local education governance; perspectives on problems and strategies for change. Phi Delta Kappan 75(5):366
- Downs RM (1970) Geographic space perception: past approaches and future prospects. Prog Geogr 2:65–108
- Eben Saleh MA (1996) A1-alkhalaf vernacular landscape: the planning and management of land in an insular context, asir region, southwestern Saudi Arabia. Landsc Urban Plan 34(2):79–95. https://doi.org/10.1016/0169-2046(95)00212-X
- Eben Saleh MA (2001) Environmental cognition in the vernacular landscape: assessing the aesthetic quality of Al-alkhalaf village, southwestern Saudi Arabia. Build Environ 36(8):965–979. https://doi.org/10.1016/S0360-1323(00)00038-X
- Floysand A, Jakobsen S (2007) Commodification of rural places: a narrative of social fields, rural development and football. J Rural Stud 23:206–221
- Gibson C (2002) Rural transformation and cultural industries: popular music on the Newsouth wales far north coast. Aust Geogr Stud 40:336–356
- Gibson C (2010) Creative geographies: tales from the margins. Aust Geogr 41(1):1-10
- Grant CA, Sleeter CE (1993) Making choices for multicultural education: five approaches to race, class & gender. Prentice Hall, Upper Saddle River
- Graue MEE, Walsh DJ (1998) Studying children in context: theories, methods, and ethics. Sage Publications, Thousand Oaks
- Gruenewald DA, Smith GA (2014) Place-based education in the global age: local diversity. Routledge, London

- Harré N (2007) Community service or activism as an identity project for youth. J Community Psychol 35(6):711–724
- Hicks D, Beaudry MC (2010) The Oxford handbook of material culture studies. Oxford University Press, Oxford, pp p427-439
- Hidalgo MC, Hernandez B (2001) Place attachment: conceptual and empirical questions. J Environ Psychol 21(3):273–281
- Hoggart K, Buller H (1987) Rural development: a geographical perspective. Croom Helm, London Jackson JB (1984) Discovering the vernacular landscape. Yale University Press, New Haven
- Jackson P (1989) Maps of meaning: an introduction to cultural geography. Unwin Hyman, Boston
- Jones M, Daugstad K (1997) Usages of the "cultural landscape" concept in Norwegian and Nordic landscape administration. Landsc Res 22(3):267–281
- Kneafsey M (2001) Rural cultural economy: tourism and social relations. Ann Tour Res 28:762–783 Krupat E (1983) A place for place identity. J Environ Psychol 3(4):343–344
- Lalli M (1992) Urban-related identity: theory, measurement, and empirical findings. J Environ Psychol 12(4):285–303
- Lim M, Barton AC (2010) Exploring insideness in urban children's sense of place. J Environ Psychol 30(3):328–337
- Lowenthal D (1975). Past time, present place: landscape and memory. Geogr Rev, 1-36
- Luckman S, Gibson C, Lea T (2009) Mosquitoes in the mix: how transferable is creative city thinking? Singap J Trop Geogr 30:70–85
- Matthews MH (1992) Making sense of place: children's understanding of large-scale environments. Barnes & Noble Books, Savage
- McAuley A, Fillis I (2005) Careers and lifestyles of craft makers in the 21st century. Cult Trends 14(2):139–156
- McGrath B (1998) The sustainability of a car dependent settlement pattern: an evaluation of new rural settlement in Ireland. Environmentalist 19(2):99–107
- Miles S (2005) 'Our tyne': iconic regeneration and the revitalisation of identity in Newcastle gateshead. Urban Stud 42(5–6):913–926
- Mitchell D (1996) The lie of the land: migrant workers and the California landscape. University of Minnesota Press, Minneapolis
- Mitchell D (2008) New axioms for reading the landscape: paying attention to political economy and social justice (29–50) Springer, Heldelberg
- Morin-Labatut G, Akhtar S (1992) Traditional environmental knowledge: a resource to manage and share. Development 4:24–29
- Olwig K (2002) Landscape, nature, and the body politic: from Britain's renaissance to America's new world. University of Wisconsin Press, Madison
- Park DC, Coppack PM (1994). The role of rural sentiment and vernacular landscapes in contriving sense of place in the city's countryside. Geografiska Annaler. Ser B Hum Geogr, 161–172
- Paulsen KE, Staggs K (2005) Constraint and reproduction in an amateur craft institution: the conservative logic of the county fair. Poetics 33(2):134–155
- Piaget J (1960) The general problems of the psychobiological development of the child. Discuss Child Dev 4:3–27
- Relph E (1976) Place and placelessness. Pion, London
- Rössler M (2006) World heritage cultural landscapes: a UNESCO flagship programme 1992–2006. Landsc Res 31(4):333–353
- Roth EG, Eckert JK (2011) The vernacular landscape of assisted living. J Aging Stud 25(3):215–224. https://doi.org/10.1016/j.jaging.2011.03.005
- Ruda G (1998) Rural buildings and environment. Landsc Urban Plan 41(2):93-97
- Sauer CO (1925) The morphology of landscape. University of California Publications in Geography, Berkeley
- Tuan YF (1974) Topophilia: a study of environmental perception, attitudes, and values. Prentice-Hall, Englewood Cliffs
- Twigger-Ross CL, Uzzell DL (1996) Place and identity processes. J Environ Psychol 16(3):205-220



Juncheng Dai an Associate Professor at the School of Culture and Communication, Central University of Finance and Economics, China. He got the Ph.D. from Faculty of Geographical Science, Beijing Normal University, China and joint doctoral training from Center of Creative Industries, Queensland University of Technology. His research interests are cultural geography and cultural economy.



Shangvi Zhou a Professor at the Faculty of Geographical Science, Beijing Normal University, China. She has been engaged in the research of cultural geography for more than 30 years. She published many books and articles in the field of cultural geography. She is the founder of the Commission of Cultural Geography under the Geographical Society of China and plays as the chairperson of the commission. She also actively participants in international academic exchanges and she is the deputy head of Regional Studies Association (China Division), the executive member of GSC (The Geographical Society of China), executive member of China Toponymy Society the executive member of Gerontological Society of China, member of the Expert Committee of China's Aging Population Society Development Plan, committee member of Cultural Approach in Geography in IGU, committee member of Global Understanding in IGU, executive Member of ACLA (Asian Cultural Landscape Association), the editorial board member of following journals: Human Geography, Areal Research and Development, Geographical Research, World Regional Studies, Scientia Geographica Sinica, National Geographical Journal of India, Sustainability, Progress of Geography, Tropical Geography, columnist of Map. Her books of The Outlines of Chinese Cultural Geography, Cultural Geography of China have strong influence in China.



Ruihong Zhang a Lecturer at the School of Electronic and Information Engineering, Liaoning Technical University. Her research interests include cultural geography.



Shunying Tang an Associate Professor at the School of Tourism and Geography, Qingdao University. She graduated from Beijing Normal University in 2013, and is currently engaged in research on locality and place identity.

The Misings of Assam in the Midst of Tradition and Modernity: A Comparative Study of Selected Rural and Urban Areas



Pahari Doley and Bimal Kumar Kar

Abstract The Misings, belonging to Tibeto-Burman ethnic group, which constitute the second largest scheduled tribe (Plains) group with a population of around 0.7 million in the state of Assam, India (as per 2011 Census), have been playing a significant role in the culture and economy of the greater Assamese society in general and tribal society in particular. Being mainly riverine inhabitant, the Misings of Assam are largely concentrated in the upper Brahmaputra valley area with highest concentration in the districts of Dhemaji and Lakhimpur (together constitute 60% of the state's total Mising population). Mostly settled in the rural areas (1.8%) in urban areas), as high as 86% of the Mising main workers are engaged as cultivators, which is the highest among all the tribes of Assam. The majority of the Mising people are still living in the flood affected and isolated areas with age-old traditions, and modern civilization has practically left them almost untouched in many aspects. In fact, this colourful ethnic group living amidst the fellow non-tribal Assamese people for many centuries has been able to maintain its traditional socio-cultural traits un-impaired in spite of the changes that have taken place in the socio-politicoreligious life of Assam. However, a very small section of the Misings is undergoing the process of modernization and acculturation in recent time through urbanisation, religious transformation, education and inter-mixing, and the impact of these factors has resulted in erosion of their traditional life and folk culture. With this background, an attempt is made in this paper to understand the changing pattern of socio-economic character and traditional practices among the Mising tribe and, emerging socioeconomic well-being in Assam in general and the selected rural and urban areas in particular based on secondary data for the period 1971–2011 and primary data recently collected from the field.

Keywords Tibeto-Burman · Misings · Acculturation · Folk culture · Socio-cultural traits · Well-being

P. Doley

Department of Geography, DCB Girls' College, Jorhat, Assam 785001, India

B. K. Kar (🖂)

© Springer Nature Singapore Pte Ltd. 2022

Department of Geography, Gauhati University, Guwahati 781014, India e-mail: bimalkar@gauhati.ac.in

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_15

1 Introduction

The tribal people in India face insurmountable problems due to their poor socioeconomic conditions, poverty, unemployment, displacement, indebtedness, and lack of adequate opportunities, accessibility and awareness of the government programmes. Coupled with this, the government and private industrial establishments have initiated mega projects of mining, hydroelectricity, industry, business, roads and transport which are leading to the loss of traditional land ownership and livelihood opportunities. This is also resulting in large-scale migration of rural tribal people to urban areas in search of livelihoods either temporarily or on permanent basis, which in turn have resulted in the disturbances of their traditional socio-psychological family relationship, network of neighbourhood relationships and the adoption of new urban culture. The displacement of tribal people due to urbanization and other development activities has also been no less significant in Assam.

Having the tradition of living along the banks of rivers, the habitats of Misings have been constantly exposed to floods and erosion, for which they have to often shift from one place to another. Although majority of them are still living in rural areas, it is noticed that for better socio-economic conditions, employment opportunities and accessibility, rural to urban migration either temporarily or permanently, is gaining ground among the Misings in recent times, which have resulted in adoption of new urban culture that comes sometimes at the cost of age-old socio-cultural traditions (Doley 2013, 2014).

Although the Mising societies have maintained the traditional customs, some changes have been noticed in their life and culture, which affect the core of their culture. Due to large-scale contact with the non-Misings, the Misings are gradually adopting some rituals relating to marriage, death, birth, etc. from non-tribal Assamese community; and getting converted into Hinduism and Christianity, and also inclusion of many elements of language, music and dance forms from non-tribal Assamese society, which were till recently non-existent among them. The spread of modern education and development of science and technology has also brought about drastic changes in the religious beliefs and socio-economic life of the Misings. Their longcontinued traditionally simplistic lifestyle and close ties between family and clan, and village co-operation are now no more so sacred. Modern socio-economic practices have over-ridden the traditional agro-based culture. Besides, certain economic compulsions have made them to think of smaller family structures and housing patterns (Doley 2013). The Misings are undergoing the process of modernisation, acculturation and urbanization, and the impact of these factors on them is resulting in the erosion of their traditional life and folk culture (Doley 2014).

With the above background, an attempt is made in this paper to understand the changing pattern of socio-economic character and traditional practices among the Mising tribe and emerging modernity and socio-economic well-being in Assam in general and the selected rural and urban areas in particular.

2 Review of Literature

Although the present study focuses on the Mising tribe of Assam of India's north-east region, the tribal situation in other parts of the country is no less similar. There exists considerable literature related to different tribes both at the national and international level. Hence, a review of some important studies on different aspects related to tribal tradition has been presented for understanding the changes in the situation of rural and urban Misings of Assam in proper perspective.

The study of rural–urban differential constitutes an important area of research in geography. Sharma (1981), in the field of rural and urban studies, analysed the socio-economic pattern of ruban communities and their spatio-temporal variations near Guwahati and examined mainly the sex ratio, literacy, vital rates and size of households. Sangwan and Sangwan (2002) in his book entitled *Rural–Urban Divide: Changing Pattern of Social Variables,* have provided a new dimension to this type of research. Brower and Johnston (2007) in the book entitled *Disappearing Peoples? Indigenous Groups and Ethnic Minorities in South and Central Asia* discussed a cultural overview of various indigenous groups in South and Central Asia and explored the current conditions and their responses that threaten their survival.

A large number of works particularly dealing with various communities have been carried out in India and other parts of the World. In North-East India, including Assam, also a large number of works have been done on various communities.

Although lots of works have been done on various aspects on the Misings of Assam, a very limited works has so far been done from purely geographical perspective to understand the changing trend of traditions among them in varying contexts. Pegu (1956) in his book entitled "The Miris or the Misings of the Brahmaputra Valley" made an attempt to study the origin, migration and cultural life of the Misings. "The Misings-Their History and Culture" (2012) by Kuli (ed.) provides a comprehensive picture of the Mising tribe's life and culture. A lot of information is presented in this book about the lifestyle, customs, dwellings, socio-religious functions, agriculture, traditions and history of the Misings. In another book entitled "The Misings (Miris) of Assam: Development of a New Lifestyle", Mipun (2000) presented a vivid picture of the socio-cultural changes in the Mising society and analysed the forces and factors involved in the process. Sharma (2004) in his book entitled "Folk Culture of the Misings of Assam: Tradition and Change" made an in-depth study of the socio-cultural life of the Mising tribe of Assam by studying their oral narratives and primarily dealt with the factors that influence the material culture of the tribe including their folk art, craft, architecture, costumes, ornaments and food. Lego (2005) in his book "History of the Misings of Arunachal Pradesh and Assam" briefly focused on the close affinities among the Misings of Assam and Adis of Arunachal Pradesh from a historical perspective. The book "Glimpses" (2007) is a collection of articles and papers of Taid which reflects various aspects of Mising language. In the book "Bayugnam Gomsar", edited by Pegu (2012a, b), various aspects of Mising language have been discussed.

The major objectives of the present study are: (i) to identify the pattern of spatial distribution of the Mising people in Assam; (ii) to study the spatial pattern of demographic and socio-economic characteristics of Misings of Assam in general and Jonai Revenue Circle and Guwahati city in particular; and (iii) to find out the level of socioeconomic well-being in terms of housing conditions, socio-economic conditions and household amenities among the Misings of rural and urban areas of Assam in general and Jonai revenue circle and Guwahati city in particular.

The present study is divided into nine sub-sections. Besides, an Introduction and review of literature, this paper discusses the geographical background of the study area and research methods. The next section deals with the Mising people and their socio-economic features. For understanding the demographic and social characteristics of Misings, various aspects like growth and distribution of Misings, age-sex composition, fertility and mortality patterns, child-woman ratio, family size and family type, literacy rate and its gender and rural-urban disparities, educational level and its rural-urban disparities. The changing cultural practices of the Mising tribe have been discussed in the next section which includes the study of the religious belief system, language, food habits and marriage system. The section dealing with the economic characteristics of Misings discusses the work force participation rate among Misings and its gender and rural-urban disparities, occupational structure among Misings and its rural-urban disparities. The next section of the study deals with the housing condition and household amenities of Misings in the selected rural and urban areas. The level of socio-economic well-being among Misings has been determined considering eighteen attributes relating to the demographic, social and economic characteristics, which include proportion of population in the age group 0-6, sex ratio, proportion of 60+ population, crude birth rate, crude death rate, dependency ratio, ageing index, life expectancy, average household size, child-woman ratio, mean female age a marriage, literacy rate, female literacy rate, proportion of graduate and above, work participation rate, percentage of non-agricultural worker, percentage of female non-agricultural worker and average landholding size. The concluding section summarises the whole discussion and presents the major findings derived from the whole study.

3 Study Area and Research Methods

3.1 The Study Area

Assam is one of the states of India located in the country's extreme east, and it is the meeting ground of many diverse cultures belonging to various ethno-religious and linguistic groups including tribes that co-exist peacefully, each unique in its traditions, culture, dress and exotic ways of life. Among the major tribal groups in the state of Assam, the Misings which constitute the second largest tribal group, is recognized as a major scheduled tribe (Plain) community in the state. Assam, located in the tropical latitudes $(24.3^{\circ} \text{ N}-28^{\circ} \text{ N})$ and eastern longitudes $(89.5^{\circ}-96.1^{\circ})$, is the most populous state in North-East India. It is surrounded on three sides by hills and mountains. The Brahmaputra and Barak Rivers, in the north and south, respectively, carve out deep valleys, which represent a major part of the state. Between the two valleys there lies a strip of highland made up by hills and plateaus (Taher and Ahmed 2007). The state covers an area of 78,438 km² and it is surrounded by Bhutan and Arunachal Pradesh on the north; Mizoram, Meghalaya and Tripura on the south; Nagaland and Manipur on the east; and West Bengal and Bangladesh on the west. It is connected with the mainland of India through a narrow corridor of around 40 km width through West Bengal in the west. During the Census of India 2011, the state had altogether 27 districts (Fig. 1).

The present study attempts to understand the Mising tribal community of Assam in the midst of tradition and modernity. It makes a comparative study of rural and urban Misings. So, for understanding the tradition and impact of modernity among the rural and urban Misings, some Mising villages of the Jonai revenue circle have been selected and some localities of Guwahati city have been selected.

Jonai revenue circle, one of the case study areas, is located in Dhemaji district of Assam in the extreme east. It is about 550 km away from the capital city of Guwahati. Covering a total geographical area of 1111.81 km², it is bound by Arunachal Pradesh in the north, Lali and Brahmaputra Rivers in the south, Sipiya River and Sadiya subdivision of Tinsukia district in the south-east and Simen River in the west. Jonai, the headquarters of the revenue circle, is located at 95.16° E and 27.77° N (Fig. 2).

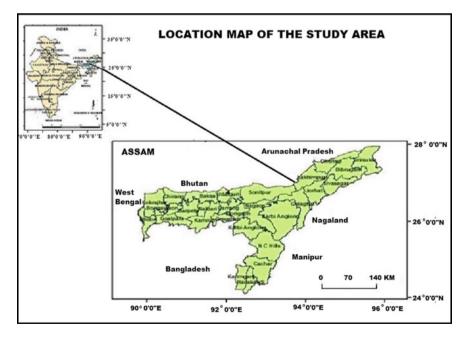


Fig. 1 Location map of Assam

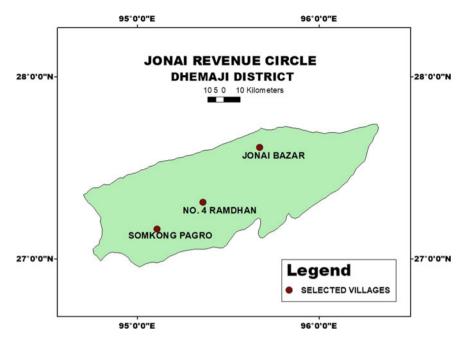


Fig. 2 Selected villages of Jonai revenue circle of Dhemaji District, Assam

Except for the Jonai Census town, the whole subdivision is classified as rural, and as such, agriculture is the predominant economic activity. Although Jonai subdivision is inhabited by many tribal and non-tribal communities, the Misings constitute the dominant population group.

Guwahati, another case study area, is the capital city of Assam and it is the largest and fastest growing administrative, commercial, industrial and educational centre in the entire north-eastern region of India. Geographically, it is located in the southern bank of the river Brahmaputra between $26^{\circ}05'-26^{\circ}15'$ N latitude and $91^{\circ}35'-91^{\circ}55'$ E longitude, covering an area of 216 km^2 . It is also considered to be the 'Gateway to the north-eastern region of India', as it is at the junction of many national highways, railways and airways of the region. Such a situation has resulted in rapid population growth of the city due to a great influx of people from different parts of the country and from within the state.

Although linguistically Assamese people constitute the majority of the city's population, it is of cosmopolitan character, as the city is also inhabited by Bengali and Hindi speaking non-tribal people and Boro, Rabha, Karbi and Mising speaking tribal people. The Misings in Guwahati city are largely concentrated in Hengerabari, Kahilipara-Sonaighuli and Barbari-Panjabari areas (Fig. 3).

Location Maps of the Selected Rural and Urban Localities Pl refer to the original map of Guwahati city submitted by us showing distribution of urban localities.

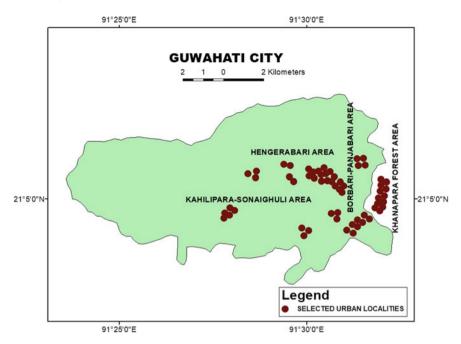


Fig. 3 Selected urban localities of Guwahati City, Assam

3.2 Database and Methodology

The study is based on both secondary and primary data. Relevant primary data have been collected at household level through sample survey with the help of a welldesigned survey schedule from Somkong Pagro and No. 4 Ramdhan villages and Jonai Bazar under Jonai revenue circle of Dhemaji district and various urban localities of Guwahati city, viz. Hengerabari, Kahilipara-Sonaighuli and Barbari-Panjabari during 2012. Primary data with a sample of 30 households from each of the selected rural areas under Jonai revenue circle have been collected from a total of 40 households and 87 households from Somkong Pagro and No. 4 Ramdhan villages. For the urban area study, the primary data have been collected from 60 households from Jonai Bazar from a total of 961 households, and 60 households from different localities under Guwahati city in order to understand the rural–urban and location-specific variations in cultural practices and socio-economic conditions among the Misings. The sample households in each area and urban locality have been selected purposively with locational and economic considerations towards having adequate representation of the way of life and various other characteristics of the Misings.

Secondary data relating to various attributes of population among the Mising tribe in particular and all scheduled tribes in general have been obtained from different volumes of Census of India covering the period 1971–2011. Besides, existing literature available in various journals, books, Ph.D. and M.Phil. dissertations relating to

the present problem have been consulted with a view to develop a broad theoretical framework of the present research in the right perspective.

The data obtained from both secondary and primary sources have been processed and analysed using some simple but meaningful statistical techniques. The quantitative techniques adopted for the analysis are simple ratios or percentages, and certain statistical measures including composite Z-scores and correlation coefficient.

The Z-score, which is nothing but standard normal deviation, is the signed number of standard deviations by which the value of an observation or data point is above or below the mean value of what is being observed or measured. If a Z-score is 0, it represents the individual value is identical to the mean value. Z-scores may also be positive or negative, with a positive value indicating the score above the mean and a negative score indicating below the mean. Positive and negative scores also reveal the number of standard deviations the score is either above or below the mean. Z-scores are expressed in terms of standard deviations from their means. Resultantly, these z-scores have a distribution with a mean of 0 and a standard deviation of 1. The formula for calculating the standard score is given below:

$$z = (x - \mu)/\sigma$$

where

- z the z-score,
- *x* the value to be standardized,
- μ the mean of the given set of data, and
- σ the standard deviation of the given set of data.

The data so processed and analysed have been represented in the form of maps and diagrams with suitable cartographic techniques for proper illustration of the patterns.

4 Mising People and Their Traditional Socio-cultural Features

The Mising tribal people of Assam who were formerly known as Miris belong to Tibeto-Burman ethnic group and constitute the second largest scheduled tribe (Plains) group in Assam, have been playing a significant role in the culture and economy of the greater Assamese society in general and tribal society in particular. They with 6.8 lakh population (17.5% of state's total tribal population) as per 2011 Census are mainly concentrated in Dhemaji, Lakhimpur, Jorhat, Golaghat, Sonitpur, Sibsagar, Tinsukia and Dibrugarh districts of Assam. It is worth mentioning that Dhemaji district alone constitutes 32.3% of the total Misings in the state, followed by Lakhimpur (29.1%) and Jorhat (15%) districts.

The Mising tribe of Assam is a colourful tribe with their unique culture and tradition. They have their own distinct culture, rituals, festivals, religious faith, house

pattern, dress pattern, food habits and language. The main festival of Misings is *Ali-Aye-Ligang*, which is celebrated during the first Wednesday of February month. This festival is observed as the beginning of their sowing season. The religious faith of Misings is based on animism and supernaturalism. Mising people believe that they are the descendants of *Donyi* (sun) and *Polo* (moon), and as such they follow the Donyi-Polo religion. However, most of the Misings follow Hinduism and some of them also have been converted to Christianity.

The Mising tribe has a unique style of housing known as '*Chang ghar*', which means 'house on slits' or raised platform. The domestic animals are kept under the raised structure. This house protects them from flood as the tribe basically lives in flood prone areas.

Misings have their own unique folk music and dances. Most of these are performed during social and religious festivals. Various forms of folk music include *ahbang*, *kaban*, *siuhlungnitom*, *midangnitom*, *oi nitom*, etc. *Ahbang* is a verse of hymn of praise and worship of gods and goddesses. Kaban is a song of lamentation and recalls sad events. *Siuhlungnitom* is a melancholic song sung in lonely places like the jungle. *Midangnitom* is usually sung at the time of ushering in a bride to her new home. *Oi nitom* is the most popular form of Mising folk song, which is sung by the youth, when they work in the fields and woods. Many dance forms are also prevalent among the Misings, such as *gumragsohnam*, *mibudagnam*, *selloi*, *lereli*, *lotta sonam*, etc. *Gumragsohnam* performed during *Porag*.¹ *Selloi* is a merry making song and dance performed for fun by the youths. *Lereli* is occasionally performed by all sections of the Mising community while meeting old friends in the form of singing and dancing for fun. *Lotta sonam* is performed on any occasion as an expression of joy or community celebration by all age groups.

The dress pattern of the Mising tribe is also quite different from the other tribes of the region. Mising women are experts in weaving beautiful and exquisite traditional dresses. The weaving loom is found in each and every rural household of the Misings. The weaved out products from the weaving loom include *ege* (the lower garment of Mising women), *rihbi* (a sheet of narrow stripes wrapped to cover the lower garment and the blouse), *gaseng* (used for the same purpose as rihbi, but it has broad stripes of contrasting colours), *gero* (a sheet, usually off-white wrapped around the waist to cover the lower part of the body), *riya* (a long, comparatively narrow sheet wrapped round the chest), and *nisek* (a piece of cloth to carry a baby).

Agriculture is the lifeline of the economy of the Mising tribe. They mainly grow rice paddy, mustard, pulses, maize, vegetables, bamboo, areca, etc. for their own consumption. Women folks also contribute to the income of the family by rearing pigs, fowls, ducks, goats, etc. However, with the spread of education and the impact of modernization, it is witnessed that some sections of the Mising community are entering into other sectors of the economy like jobs, business, etc.

¹ Porag: It is five-day long post-harvest festival observed by the Misings.

5 Demographic and Social Characteristics of the Misings

5.1 Growth and Distribution of Misings

The size of the Mising population, which was 259,551 in 1971, increased to 587,310 in 2001 witnessing an annual growth rate of 2.73% during 1971–2001 as against 2.43% among the scheduled tribe as a whole (Table 1). This is indicative of the fact that the birth rate among the Misings who are largely settled in rural areas has been significantly higher than other major tribes in the state. In view of the prevalence of high growth rate, the proportion of the Misings to total scheduled tribes (ST) population in the state has increased from 16.15 to 17.75% during 1971–2001.

Like any other tribal group, the Misings are distributed almost throughout the state of Assam, but with varying size of population in the riverine tracts. The major concentration is, however, found in the upper Brahmaputra Valley (Figs. 4 and 5). Significantly, more than 99% of the Mising population is concentrated in the upper Brahmaputra valley districts including Sonitpur. Among these districts again, more than two-third of the Mising population is confined to Dhemaji and Lakhimpur districts. The individual proportions of the Misings to total scheduled tribe population in these two districts are 31.7% and 28.2%, respectively. Hence, the districts of Dhemaji and Lakhimpur may be termed as the core areas of Misings in Assam.

Population	Population s	size		Annual grow	wth rate (in %)
group	1971	1991	2001	1971–1991	1991-2001	1971-2001
1. All Misings in Assam	259,551 (16.15%)	467,790 (16.27%)	587,310 (17.75%)	2.99	2.30	2.73
2. Misings in the districts of major concentration	-	447,352	559,287	-	2.26	-
3. All ST in Assam	1,606,648	2,874,441	3,308,570	2.95	1.42	2.43
4. Total population in Assam	14,625,152	22,414,322	26,655,538	2.16	1.75	2.02

 Table 1
 Mising population growth in Assam, 1971–2001

*There was no Census in 1981 due to disturbed situation

Source Census of India (1971), Assam, Part 2-A, General Population Tables and Part2-C (i) Social and Cultural Tables

Census of India, (1991a): Individual Tables on Scheduled Tribes, Assam

Census of India, (2001a): Individual Tables on Scheduled Tribes, Assam

Note: The Misings of Assam are mainly concentrated in the riverine areas of the upper Brahmaputra Valley of Assam, and they are largely found in the districts of Dhemaji, Lakhimpur, Jorhat, Golaghat, Sonitpur, Sibsagar, Tinsukia and Dibrugarh

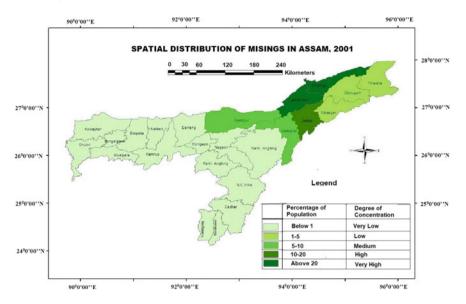


Fig. 4 Spatial distribution of Misings in Assam, 2001



Fig. 5 Traditional Chang ghar of Misings, No. 4 Ramdhan Village, Assam, India (October 2012). Picture Credit: Pahari Doley

5.2 Age-Sex Composition

So far age composition is concerned, due to prevalence of considerably high fertility rate, the proportion of children has been quite high in Assam as elsewhere in the country. The proportion of population as per the broad age groups, like 0–14 (children), 15–59 (adult), and 60+ (old) according to 2001 Census among the Misings were 40.99%, 53.93% and 5.08%, respectively; for all STs in Assam these percentage figures were 37.76%, 56.99% and 5.25%, respectively. The proportion of population as per the broad age groups in Assam state was found to be 37.40%, 56.60% and 5.90%, respectively. It means dependency of children and old people upon the adults remained quite high in the state and also among the STs and the Misings. However, the proportion of children below 15 years of age among the Misings is found to be higher than all STs of Assam and Assam as a whole. So far, the proportion of adult population is concerned, it is found to be 53.70% in rural areas and 66.53% in urban areas among the Misings and 56.69% (rural) and 63.21% (urban) among all ST population of Assam state during 2001. However, the dependency ratio is found to be high both among the Misings and all ST population of Assam.

From the surveyed data, it is found that the highest proportion (38.9%) of population in the age group 0–14 is in No. 4 Ramdhan, which is closely followed by Somkong Pagro with 36.8%, while the two urban areas, namely Jonai Bazar and Guwahati City witnessed 29.7% and 25.1 population in 0–14 age group. The proportions of population in the age group above 60 are 7.1, 7.6, 7.9 and 8.6% in No. 4 Ramdhan, Somkong Pagro, Jonai Bazar and Guwahati City. However, the proportion of 15–59 age group is highest in the urban areas of Guwahati City (66.3%) and Jonai Bazar (62.4%) and relatively lower in the rural areas, namely No. 4 Ramdhan (54.0%) and Somkong Pagro (55.6%). This shows that the dependency ratio is highest in No. 4 Ramdhan (85.18%) and Somkong Pagro (79.86%), followed by Jonai Bazar (60.26%) and Guwahati City (50.83%) (Table 2). The high dependency ratio acts as a serious impediment on the socio-economic development of the areas and quality of life of the people as it reduces the per capita income in relation to higher expenditure. The pressure on the productive population (15–59 age group) increases with the

, , ,							
Sample survey area	No. of sample households	0	omposition tage of tion)	n (as	Dependency ratio (in %)	Ageing index (in %)	% of 0–6 population
		0–14	15–59	60+			
1. Somkong Pagro	30	36.8	55.6	7.6	79.86	20.65	19.83
2. No. 4 Ramdhan	30	38.9	54.0	7.1	85.18	18.25	20.38
3. Jonai Bazar	60	29.7	62.4	7.9	60.26	26.59	14.41
4. Guwahati City	60	25.1	66.3	8.6	50.83	34.26	11.24

Table 2Age-sex composition among the Misings in the sample survey villages/urban localities ofAssam, 2012

Source Based on authors' primary survey, 2012

Table 3Sex ratio in thesample survey villages/urbanlocalities of Assam, 2012	Sample survey area	No. of sample households	Sex ratio (females per thousand Males)
100unites 017185uni, 2012	1. Somkong Pagro	30	983
	2. No. 4 Ramdhan	30	1079
	3. Jonai Bazar	60	874
	4. Guwahati City	60	1024

Source Based on authors' primary survey, 2012

increasing dependency ratio which results in low individual income, low standard of living, declining job opportunities and deterioration of the national economy.

It is witnessed that although the urban sex ratio is found to be higher among the Misings (877) than that of the total population of Assam (872), it is still low when it is compared with that of all ST of Assam (928). The data collected through sample survey of villages and urban localities reveal that there is much variation in sex ratio, which varies from as high as 1079 in No. 4 Ramdhan to as low as 874 in Jonai Bazar (Table 3). In Mising society, women enjoy a fairly high status and play a crucial role in socio-economic development and as a result gender discrimination is found to be very low. The data of selected rural areas reveal that the sex ratio in Somkong Pagro (983) and No. 4 Ramdhan (1079) is much higher than the rural Misings of Assam (961). It is witnessed that the selected urban areas differ much in terms of sex ratio with Jonai Bazar (874) and Guwahati city (1024), where one is lower than the average sex ratio of urban Misings (877) and the other is higher. The lower sex ratio in Jonai Bazar is indicative of the fact that economic migration mostly takes place among the male counterparts. However, the sex ratio in the Guwahati city is found to be higher, because in some of the selected urban localities it is found that all the members of the family have migrated to the city in search of better opportunities.

5.3 Fertility and Mortality Patterns

The birth rate and death rate in the rural areas are found to be significantly higher than the urban areas. The birth rate is found to be highest in Somkong Pagro (30.5%), followed by No. 4 Ramdhan (29.7), Jonai Bazar (26.3) and Guwahati City (22.3). The death rate is also found to be highest in Somkong Pagro (7.6), followed by No. 4 Ramdhan (6.8) and low in Jonai Bazar (5.9) and Guwahati City (4.9). It shows that the natural growth rate is found to be high in the Mising dominated rural areas as compared to the urban areas. The following factors explain the considerably high natural growth of population among the Misings: (i) prevalence of early age at marriage, (ii) social prejudices and superstitions, (iii) lack of adequate education, (iv) limited use of contraceptives, (v) declining infant and maternal mortality combined with general improvement in medical treatment leading to longer life expectancies.

Sample survey area	No. of sample households	Mean a age gro	ge at marri ups	iage (in y	ears) of we	omen in o	different
		Below group	40 age	40–60 a	age group	Above group	60 age
		Male	Female	Male	Female	Male	Female
1. Somkong Pagro	30	25.62	19.99	23.58	17.96	21.32	16.43
2. No. 4 Ramdhan	30	26.58	20.86	24.10	18.40	22.30	17.56
3. Jonai Bazar	60	27.67	22.75	25.76	20.77	23.87	18.98
4. Guwahati City	60	29.84	24.67	27.70	21.73	24.98	19.85

 Table 4
 Mean age at marriage in different age groups among the Misings in the sample survey villages/urban localities of Assam, 2012

Source Based on authors' primary survey, 2012

Although marriage is a social phenomenon, age at marriage is considered as a demographic one. It is because age at marriage among the females significantly determines the level of fertility and natural growth of population. There is a close relationship between fertility and age at marriage which suggests that women who marry at a younger age produce more children than women who marry late.

It has been found from the household survey that the mean age at marriage is low in the age group (60+) among both male (21.32–lowest) and female population (16.43–lowest) (Table 4). It is worth mentioning that the mean age at marriage among the female is significantly lower than the male in all age groups. But it is encouraging to note that the mean age at female marriage has been on the rise in recent time. It is, however, more so in the urban areas. It is witnessed that the mean female age at marriage among the Misings in the sample survey areas is as high as 22.08 in Guwahati City and as low as 18.13 in Somkong Pagro.

5.4 Child-Woman Ratio

The child-woman ratio is an important indicator of fertility behaviour of any population. It refers to the average number of children per married woman of age 45 and above. The primary data collected in 2012 from the selected villages and urban localities show that the child-woman ratio varies between rural and urban localities to a great extent depending upon their educational attainment and economic conditions.

The child-woman ratio is found to be significantly higher in the rural areas compared to the urban areas. This is depicted from the data of the surveyed areas. The child-woman ratio is found to be the highest in Somkong Pagro (5.16), followed by No. 4 Ramdhan (4.86), Jonai Bazar (3.18) and lowest in Guwahati City (2.90).

5.5 Family Size and Family Type

A family is a group of people affiliated by consanguinity, affinity or co-residence. In most societies, it is the principal institution for the socialization of children. During the past generation, it was found that most of the households had large families, i.e. joint and extended. But nowadays, the large families are breaking down into smaller ones, i.e. nuclear families. The size of a family and its financial condition are closely related to each other. The living cost of a larger family is much higher as they have more expenses on food, clothing, education, etc., whereas expenses are low in a small family.

The surveyed data clearly reflect that small family is still a far-removed concept among the rural areas of the Misings. The average household size is more than 6 in rural areas, while in urban areas it is below 5. No. 4 Ramdhan has the highest household size of 7, while Guwahati City has the lowest household size (4.15). Thus, there is significant variation in household size between rural and urban areas. The prevalence of larger household size in the rural areas is mainly associated with relatively higher fertility rate and higher proportion of joint families as compared to those in urban areas.

The Misings of Assam follow the patriarchal system of family structure, i.e. father is the head of the family and his authority is undisputed. The field survey reveals that among all the selected rural and urban areas, the system of joint/extended family structure, which was widely prevalent about 30 years ago, has been gradually breaking down. However, some of the families still maintain the joint/extended family structure, which is a feature of rural areas.

It has been found from the household survey that the nuclear family among the Misings in the past generations was more prevalent in the urban areas and that too among a small section of the sampled families. Although the system of joint/extended family is still prevalent in the rural areas, it is very much on the decline. The proportion of nuclear families is found to be very high in Guwahati city (96.7%), followed by Jonai Bazar (60.0%). In the rural areas, although the joint family system is still prevalent, the proportion of nuclear families is found to be 40.0% in Somkong Pagro and 36.6% in No. 4 Ramdhan.

5.6 Literacy Rate and Its Gender and Rural–Urban Disparities

Literacy and educational attainment is considered to be the hallmark of modern society (Kar and Sharma1994). Literacy is an important element in the process of socio-economic development of an area and education acts as an important factor towards social change. The study found that Misings in rural areas are lagging behind with regard to literacy and educational attainment compared to that in urban areas.

According to the 2001 Census data, literacy rate among the Misings was found to be 60.1% as against 62.5% for all scheduled tribes of Assam. Although the literacy rates have witnessed marked increase among the males and females during 1971-2001, still there exists significant gender disparity in this respect among both the Misings and all STs in the state (Table 5). So far, the rural Misings are concerned, the male literacy shows an increase of 42.46% during 1971–2001, while the female literacy shows an increase of 40.06% during the same period. In terms of female literacy, all scheduled tribes (Rural) in Assam show a marginal increase compared to the Misings with 40.14% during 1971–2001 (Table 5). It means that the Mising tribal group in Assam, more particularly its female section has to catch up with its male counterpart in terms of literacy. The variation in literacy rate is found to be much higher in urban contexts. It is witnessed that the literacy rate among the Misings male is found to be 96.53% in urban areas which is much higher than all STs (92.43%) in Assam state while the rural Misings male literacy was only 70.84% in 2001. Such variation in literacy rates is also witnessed among the Misings females, which is 87.26% in urban areas compared to 47.52% in rural areas (Table 5).

The primary survey data have further revealed that the gender disparity in terms of literacy varies spatially among the selected rural and urban areas. Although all the selected Mising dominated villages have witnessed marked increase in the literacy rate between 2001 and 2011, the gender disparity in literacy still prevails. It is found that the gender disparity in terms of literacy is highest in No. 4 Ramdhan (33.4% points), followed by Somkong Pagro (19.0% points), and lowest in Guwahati City (8% points). It clearly indicates that the gender disparity is significantly higher among the rural Misings as compared to their urban counterparts.

Among the areas surveyed, the literacy rate among the Misings is found to be lower in the rural areas compared to its urban counterparts. The selected rural areas, namely No. 4 Ramdhan and Somkong Pagro have recorded literacy rates of 74.6% and 79.7%, respectively, as compared to the selected urban areas, namely Jonai Bazar and Guwahati City with literacy rates of 80.9% and 91.6%, respectively, (Table 6). But the female literacy rate is as low as 53.1% in No. 4 Ramdhan village as against the male literacy rate of 86.5%. On the other hand, the female literacy rate is quite high in Guwahati city (87.6%) as compared to the other areas and also the male literacy rate (95.6%) (Table 6). It means higher the overall literacy rate among the Misings, higher the female literacy and lower is the consequent gender disparity in literacy.

5.7 Educational Level and Its Rural–Urban Disparities

The quality of the human population of any society can be measured through its educational attainment (Kar 2007). Real progress in education in an area or within a community is reflected by the educational level or attainment among the literate population, because mere literacy rate does not give a clear picture about the ladders

Population group	1971				1991				2001			
	Rural		Urban		Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mising	28.38	7.46	70.51	69.28	59.01	34.47	94.16	86.25	70.84	47.52	96.53	87.26
All ST	21.37	10.90	68.75	50.08	57.93	37.90	84.53	70.66	71.28	51.04	92.43	80.62
*There was no Census in 10	e in 1081 d	81 due to disturbed situation	hed citinatic	5								

Table 5Literacy rate of all ST and Misings (rural and urban) in Assam, 1971–2001

"There was no Census in 1981 due to disturbed situation

Source Census of India (1971), Assam, Part 2-A, General Population Tables and Part2-C (i) Social and Cultural Tables Census of India (2001b), Series 19, Assam, Tables A5-A9, Primary Census Abstract Census of India (1991b), Series 4, Assam, Part 2-B, Primary Census Abstract

The Misings of Assam in the Midst of Tradition and Modernity ...

Sample survey area	No. of sample households	Literacy	rate (in %)	
		Т	M	F
1. SomkongPagro	30	79.7	87.8	68.8
2. No. 4 Ramdhan	30	74.6	86.5	53.1
3. Jonai Bazar	60	80.9	88.2	74.4
4. Guwahati City	60	91.6	95.6	87.6

Table 6 Literacy rate of the Misings in the sample survey villages/urban localities of Assam, 2012

Source Based on authors' primary survey, 2012

of educational attainment, which plays a significant role in the socio-economic development of a region.

So far as educational attainment in Assam is concerned, there exists significant variation between the Misings and all other STs. It may be mentioned here that the proportion of literates with higher educational level, i.e. graduate and above is considerably higher among the Misings as compared to all other STs in Assam. It is true for both male and female population, and also for rural and urban areas (Table 7). Among the Misings in rural areas, the proportion of male literates with educational level of graduation and above (3.5%) is considerably higher than the females (1.1%). Although the proportion of literates with educational level of graduation and above (3.5%) is considerably higher than the females (1.1%). Although the proportion of literates with educational level of graduation and above (3.5%) is considerably higher than the females (1.1%). Although the proportion of literates with educational level of graduation and above (3.5%) is considerably higher than the females (1.1%). Although the proportion of literates with educational level of graduation and above (3.5%) is considerably higher than the females (1.1%). Although the proportion of literates with educational level of graduation and above among the Misings is higher in the urban areas, the position of females in this respect (11.0%) is considerably behind the male counterparts (23.2%) (Table 7).

The picture in this respect has, however, improved considerably in recent times as revealed by the primary survey data from selected villages and urban areas. It was found that although the proportion of graduates among Misings has increased quite significantly in both rural and urban areas, there still exists considerable gender and rural–urban differentials. It is, however, encouraging to note that the proportion of males with graduate or higher education among the Misings in Guwahati city is as high as 72.2% as against 47.7% for the females (Table 8). But gender disparity in graduate or higher education in No. 4 Ramdhan village is found to be quite insignificant (Male: 20.8%; Female: 19.6%).

Populat group	ion	Below prima		Prima middl	ry and e	HSLC	2	HS an diplor		Gradua	ate+
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mising	Rural	30.5	30.7	38.5	42.1	21.0	21.2	6.5	4.9	3.5	1.1
	Urban	11.6	14.3	23.1	27.6	23.8	28.6	18.3	18.5	23.2	11.0
All ST	Rural	31.8	33.9	42.7	45.7	18.4	16.7	4.7	2.9	2.4	0.8
	Urban	17.2	20.2	34.7	39.8	24.2	24.3	11.6	9.3	12.3	6.4

 Table 7
 Proportion of male/female literates with different educational levels in Assam, 2001

Source Census of India, 2001, Series 19, Assam, Tables A5-A9, Primary Census Abstract

Sample	No. of	Educationa	al Level				
survey area	sample HH	Below primary	Below HSLC	HSLC & HS	Grad	Tech & Med. Grad	PG &Ph.D.
1. Somkong Pagro	30	8.5	27.4	39.6	16.9	1.9	5.7
2. No. 4 3. Ramdhan	30	7.8	23.4	49.2	17.2	0.8	1.6
3. Jonai Bazar	60	9.4	21.8	36.8	20.5	5.0	5.5
4. Guwahati City	60	4.1	6.0	30.0	42.9	7.3	9.7

 Table 8
 Variation in educational level and proportion of graduate+ among the Misings in the sample survey villages/urban localities, 2012

Source Based on authors' primary survey, 2012

6 Changing Cultural Practices

The colourful life of the people, their traditional customs, festivals and dances are some of the components of the rich cultural diversity of Assam. Culture is not a static identity and keeps changing. Cultural geographers generally use historical, archival, ecological, literacy, travelogue, ethnographic and associated methods to investigate localized patterns of religion, language, diet, arts and customs (Singh and Singh 2004). The impact of urbanisation and modernization has brought a major economic and socio-cultural transformation among the Mising tribe in Guwahati city. Their society is changing not only in the aspects of socio-economic and political areas but also in beliefs and practices (Kaman 2012). A remarkable change is noticed among the Mising population in that most of the younger generation has forgotten their own dialect, which is a serious threat for the survival of the socio-cultural practices of the Misings. Changes are seen with respect to religious beliefs and practices as different forms of Hinduism and other religions have penetrated into their culture (Pegu 2006).

6.1 Religious Belief System Among the Misings

The original faith and belief of Misings is *Donyi-Polo*,² the Supreme Being who created the universe in all the elements. This belief still remains in their hearts and dominates their thinking and movement (Tukbo 2005). The Mising religious system has become admixture of both neo-Vaisnavism and animism. They have become Hinduised because they worship Hindu deities and observe Hindu religious celebrations. But at the same time, they also profess animism. So, they may be also

² Donyi-Polo: Literally means Sun-Moon. It is an animist religion of the Tani and other Tibeto-Burman people.

called tribal Hindu that may be the identity of an ethnic group, which has its own distinctive cultural traits including religious system (Pegu 2012a, b). A great erosion of faith has taken place in the Mising society. It is also found that some of the Mising community members are being converted to Christianity. The percentage of Mising population practicing Hinduism (98.83%) is the highest compared to Christianity (0.62%) and others (0.56%).

The primary data analysis also shows that most of the Misings are influenced by Hinduism. It may be mentioned here that the percentage of Misings practicing Hinduism is higher in Jonai Bazar (100%), followed by No. 4 Ramdhan (96.6%), Somkong Pagro (93.3%) and Guwahati City (93.3%). Although some of the Mising community members are influenced by Christianity, their proportion is quite low. Among the field study areas, Guwahati City (6.7%) and Somkong Pagro (6.7%) have recorded a considerable proportion of Christians in the population.

6.2 Language of Misings

So far as language is concerned, the majority of the population in the rural areas are found to speak only Mising language at home. While in the urban areas, although Mising language is spoken at home, the influence of other languages has also been quite significant. Hence, the Misings residing in urban areas practice bilingualism or multilingualism, and speak languages, such as Assamese, Hindi, Bengali and English.

6.3 Food Habits Among Misings

From the household survey conducted in both rural and urban areas among the Misings, it was found that Misings still maintain their traditional food habits. It is witnessed that the proportion of Misings consuming non-vegetarian food is almost 100% in all the sample survey areas. Although some of the family members in a particular household are found to be vegetarian mainly due to some religious practices or health conditions, it is not prevalent within the entire household as a whole. The consumption of alcohol is a common practice among the Misings, and they are found to consume basically their traditional rice beer (*Apong*). However, in recent times they are also found to consume the foreign alcoholic beverages. The consumption of traditional rice beer is found to be higher in the rural areas, namely No. 4 Ramdhan (53.3%) and 46.7% in Somkong Pagro, while the consumption of foreign alcoholic beverage is found to be higher in the urban areas with Guwahati City recording 80% and Jonai Bazar having 60% of such consumption.

6.4 Marriage Among Misings

The process of modernization, democratization and development has brought a lot of positive changes in Indian society. Similarly, among the Misings of Assam, a marriage within the same community is the norm. But this traditional binding of the community in marriage selection is gradually loosening. It is observed that about 10% of all marriages among the Misings are inter-community (with non-tribal communities), inter-tribe and inter-religion (Table 9). This change in the marriage pattern among the Mising community is a recent phenomenon due to the impact of modernization, socio-cultural interaction, socio-economic development and globalization. Various socio-economic and demographic factors also affect the pattern of inter-community marriages among them.

The household survey reveals that incidence of inter-community, inter-religion, inter-tribe marriage and incidence of widow remarriage is higher among Misings in the urban areas compared to the rural ones. The proportion of inter-community (with non-tribal communities) and inter-tribe marriage is found to be as high as 21.7 and 11.7% in Guwahati City, and as low as 10% in Somkong Pagro and 6.7% in both Jonai Bazar and No. 4 Ramdhan (Table 9). It is also witnessed that the proportion of inter-religion marriages is low as compared to inter-community and inter-tribal marriages as both Somkong Pagro and No. 4 Ramdhan areas have 3.7% and Guwahati City has 3.3% of inter-religion marriage. The incidence of widow remarriage is also found to be highest in Guwahati City with 6.7%, followed by No. 4 Ramdhan (3.7%), while Somkong Pagro and Jonai Bazar have no such incidence.

		ing the winsings in the			
Sample survey area	No. of sample households	Inter-community marriage	Inter-religion marriage	Inter-tribe marriage	Incidence of widow remarriage
1. Somkong Pagro	30	10.0	3.7	13.3	0.0
2. No. 4 Ramdhan	30	16.7	3.7	6.7	3.7
3. Jonai Bazar	60	16.7	0.0	6.7	0.0
4. Guwahati city	60	21.7	3.3	11.7	6.7

 Table 9
 Marriage pattern among the Misings in the Villages/Urban Localities of Assam, 2012

Source Based on authors' primary survey, 2012

7 Economic Characteristics of Misings

7.1 Workforce Participation Rate and Its Gender and Rural–Urban Disparities

The way social life and economy of the countryside is different from that of urban areas, in the same way the work force participation rate in economic activities differs quite significantly from one another. It is worth mentioning that the proportion of working force in the rural areas is considerably higher than that of urban areas mainly due to the concentration of activities like agriculture and household industries involving large-scale participation of family members irrespective of age and sex in rural areas (Chandna 2000).

According to the Census of India 2001, the total work force participation rate among the Misings is found to be 51.2% as against 43.2% for all STs of Assam state as a whole. The work force participation rates among the males and females have also been found to be higher among the Misings (male: 54.0%; female: 50.5%) than that of all STs in the state (male: 50.5%; female: 35.8%). Moreover, the work force participation rate is considerably higher in the rural areas of Assam.

According to the authors' primary survey, the work force participation rate is highest in Somkong Pagro (51.6%), followed by No. 4 Ramdhan (50.0%), Guwahati City (48.9%) and Jonai Bazar (43.0%). This is indicative of the fact that the traditional agro-based economy in the rural areas engages more workers as compared to the secondary and tertiary sector economy in urban areas. However, the work force participation rate is higher among the males compared to their female counterparts in all sectors of economy.

7.2 Occupational Structure and Its Rural–Urban Disparities

The proportion of population engaged in economic activities (work force participation rate) and the occupational structure of the workers indicate to a great extent the overall economic development of the Misings in the rural and urban contexts of Assam. The proportion of workers engaged in the agricultural sector is higher in the rural areas as compared to the urban areas (Table 10).

An attempt has been made to assess the occupational pattern and economic conditions of the Mising people in the study areas. There is a remarkable variation in the spatial distribution of workers in different sectors of occupation in both rural and urban areas. The proportion of agricultural workers has been higher in the rural areas, whereas the proportion of non-agricultural workers has been found to be higher in the urban areas. Further, the proportion of non-agricultural workers is found to be highest in the Guwahati City (100%), followed by Jonai Bazar (95.7%), Somkong Pagro (39.5%) and No. 4 Ramdhan (28.6%). This indicates that there exist marked

Population group	troup	1971			1991			2001		
		Main worker (%)	Agri. worker (%)	Non-Agri. worker (%)	Main workerAgri. workerNon-Agri.Main workerAgri. workerNon-Agri.(%)(%)(%)(%)(%)worker (%)	Agri. worker (%)	Non-Agri. worker (%)	$ \begin{array}{ c c c c } \mbox{Main worker} & \mbox{Agri. worker} & \mbox{Non-Agri.} \\ (\%) & (\%) & \mbox{worker} (\%) \end{array} $	Agri. worker (%)	Non-Agri. worker (%)
All STs in R	R	25.46	93.01	6.99	33.95	90.16	9.84	28.29	79.9	20.10
Assam	n	22.95	21.79	78.21	28.14	21.21	78.79	27.01	8.53	91.47
Misings	R	I	I	I	34.56	93.81	6.19	29.67	88.72	11.28
	n	I	I	I	26.04	16.11	83.89	26.24	5.86	94.14
*There was no Census in 19	o Census	in 1981 due to e	981 due to disturbed situation	ion						

Table 10 Percentage of agricultural and non-agricultural workers (All ST & Misings) in Assam (rural & urban), 1971-2001

Source Census of India (1971), Assam, Part 2-A, General Population Tables and Part2-C (i) Social and Cultural Tables Census of India (1991b), Series 4, Assam, Part 2-B, Primary Census Abstract

Census of India (2001b), Series 19, Assam, Tables A5–A9, Primary Census Abstract

rural-urban disparities in the proportion of workers engaged in the agricultural and non-agricultural sectors.

With 88.72% of the workforce engaged in the agricultural sector, it still continues to be the mainstay of the rural Misings (Table 10) according to Census of India 2001. The main crops which they cultivate are rice paddy, mustard, sweet potato, ginger, pulses, cotton, etc. Besides agriculture, animal husbandry and fishing are their subsidiary occupations. On the other hand, it is witnessed that the rate of non-agricultural workers is as high as 94.14% among the urban Misings according to 2001 Census (Table 10). They are mainly engaged in different activities like services, jobs, business, etc., while some are engaged as daily wage labourers, construction workers, drivers, etc.

8 Housing Condition and Household Amenities

The type of house and housing conditions vary significantly according to the economic condition of the inhabitants. In the rural context, physical and social factors also become equally important. The housing character is considered as an index to understand the prevailing socio-economic condition of a community or a family. Availability of basic amenities reflects that the standard of living is greatly dependent on economic conditions. Increase in basic amenities over time is indicative of improvement in socio-economic well-being. The amenities like source of fuel for cooking, source of drinking water and household gadgets are considered here. So far, the cooking fuel is concerned, there is significant variation among the rural and urban areas.

The Misings do not consider their house to be an ordinary house on stilts. For them, a ten- story house on stilts is as wonderful as a seven-story royal palace. They are known as "*TalengOkum*" by the Mising tribe, which is popularly known as *Chang ghar*. The traditional Mising house is made of thatch, bamboo, timber and cane on stilts, and is usually long and spacious. But in the last few decades, innumerable Assam type, concrete and small Indira Awaas Yojana (IAY)³ types of houses are found in the Misings villages. The rural and urban Misings are found to be living in different categories of houses: Chang ghar, AT Kutcha,⁴ AT Pucca,⁵ Reinforced Cement Concrete (RCC), and Huts. The size of the houses, their structure, and various facilities within them are also found to significantly vary both spatially and temporally. Most of the Mising houses in the urban areas are equipped with modern facilities such as electricity, water supply, drawing room and well-equipped kitchen.

³ Indira Awaas Yojana (IAY): Now renamed as Pradhan Mantri Gramin Awaas Yojana (PMGAY) is a social welfare programme created by the Indian Government, to provide housing for the rural poor in India.

 $^{^4}$ AT Kutcha: The typical Assam type house prevalent in rural areas, built in local design with bamboo as well as mud, thatch, etc.

⁵ AT Pucca: Assam type house made with high quality materials throughout such as stone, brick, cement, concrete, etc. including the floor, roof and exterior walls.



Fig. 6 Assam type Kutcha House, Somkong Pagro, Assam, India (October 2012). Picture Credit: Pahari Doley



Fig. 7 Assam type Pucca House, Jonai Bazar, Assam, India (November 2012). Picture Credit: Pahari Doley

However, the impact of modernization has also transformed the Mising houses in rural areas, which are increasingly becoming modernized, while most of them still maintain the traditional culture and heritage (Figs. 6 and 7).

From the surveyed households, it is quite clear that during the past generation⁶ almost all the Misings used to reside in traditional *chang ghar* with limited facilities,

⁶ Past generation: the average period between the birth of parents and the birth of their offspring, roughly 30 years.



Fig. 8 Reinforced Cement Concrete (RCC) House, Guwahati City, Assam, India, (November 2012). Picture Credit: Pahari Doley

but the situation is quite different in the present generation, with most of them opting to reside in well-equipped houses with modern facilities. The change is, however, much more in the urban areas as compared to the rural ones. Although some of the urban folks still maintain the tradition of living in *chang ghar*, those houses are well-equipped with modern facilities. During the past generation (see footnote 6), more than 95% of the households surveyed in the different rural and urban areas among the Misings used to reside in the traditional *chang ghar*.

Most of the Mising households in urban areas have well-furnished drawing rooms,⁷ dining room, bedroom, etc. which were unthinkable during the past. Presently, the proportion of households having drawing rooms is highest in Jonai Bazar (90.0%) and lowest in No. 4 Ramdhan (23.3%). With the impact of modernisation, it is observed that the provision of guest rooms and separate rooms for girls have been widely accepted and introduced among both rural and urban Misings. However, from the primary survey conducted, it is witnessed that the availability and provision of such rooms is better in urban areas. This is indicative of the prevalence of the degree of modernity and social change (Fig. 8).

Regarding the source of drinking water among the Misings, it is found that most of the households in the rural areas depend on wells, ponds and tube wells, while they rely on tube wells, wells and supply water in the urban areas. During the last few decades, they were dependent more on river and pond water. So far, the cooking fuel is concerned, there is significant rural–urban variation. It is observed that a large proportion of the urban Misings uses Liquified Petroleum Gas (LPG) as the fuel for cooking. Although many rural Misings have started using LPG in recent times, the use of firewood is still prevalent among them (above 40%). The slow improvement

⁷ Drawing room: a room in a house used for relaxing and entertaining guests.

in economic condition combined with impact of urbanization and modernization has also brought in considerable changes in the household amenities and resultant way of life in the Mising dominated areas. While analysing the basic amenities enjoyed by the people in the surveyed areas, primary data revealed that radios, tape recorders, televisions, video cassette recorders (or VCR), and bicycles are almost common to all households depending upon their economic condition. However, availability of newspapers and magazines published in Mising, Assamese and English languages are more common among the urban Misings than their rural counterparts.

9 Socio-economic Well-Being Among Misings

Level of socio-economic well-being or socio-economic development is a multidimensional concept. Socio-economic development is the process of social and economic development in the society. Determination of the scale-free composite score is essential for understanding the spatial and cross-cultural variations in socioeconomic development of population in any area. However, the accuracy of results reflecting reality depends mainly on the selection of the meaningful attributes, quality of data for the selected attributes, and application of appropriate research methods (Das 2008).

In the present study, for the determination of the level of socio-economic wellbeing of Misings in rural and urban areas, various attributes related to the demographic, social and economic characteristics have been considered. They include: (i) proportion of population in the age group 0-6 (x₁), (ii) sex ratio (x₂), (iii) proportion of 60+ population (x_3) , (iv) crude birth rate (x_4) , (v) crude death rate (x_5) , (vi) dependency ratio (x_6), (vii) ageing index (x_7), (viii) life expectancy (x_8), (ix) average household size (x_9) , (x) child-woman ratio (x_{10}) , (xi) mean female age at marriage (x_{11}) , (xii) literacy rate (x_{12}) , (xiii) female literacy rate (x_{13}) , (xiv) proportion of graduate and above (x_{14}) , (xv) work force participation rate (x_{15}) , (xvi) percentage of non-agricultural worker (x_{16}) , (xvii) percentage of female non-agricultural worker (x_{17}) and (xviii) average landholding size (x_{18}) . While computing the standard Zscores of different parameters, their usual direction (positive and negative) has been ascertained. For instance, high literacy rate is positively related to socio-economic well-being, whereas high child-woman ratio is negatively related to socio-economic well-being. Thus, in order to make all these parameters compatible, signs of the scores of all the negative parameters have been reversed before computing the composite Z-scores.

Among the areas considered in this study, the composite Z-Score of the urban areas are found to be significantly higher than the rural areas, which indicate that the socio-economic well-being is comparatively higher among the urban Misings than their rural counterparts. The Misings of Guwahati city have the highest level of socio-economic well-being with a composite Z-score of 20.72, distantly followed by Jonai Bazar (2.75), Somkong Pagro (-9.08) and No. 4 Ramdhan (-10.25). The

values of the composite Z-Score reveal that there is significant variation among the rural and urban areas in terms of socio-economic well-being.

10 Conclusion

The objectives behind the present study have been to identify the pattern of spatial distribution of the Mising people in Assam and to study the spatial pattern of demographic and socio-economic characteristics of Misings of Assam in general and Jonai Revenue Circle and Guwahati city in particular; and to find out the level of socioeconomic well-being in terms of housing conditions, socio-economic conditions and household amenities among the Misings of rural and urban areas of Assam in general, and Jonai revenue circle and Guwahati city in particular. To achieve those objectives, a detailed study has been conducted in the rural and urban areas of both Jonai revenue circle and different localities of Guwahati city through a well-designed household survey schedule from Somkong Pagro and No. 4 Ramdhan villages and Jonai Bazar under Jonai revenue circle of Dhemaji district and various localities of Guwahati city, viz. Hengerabari, Kahilipara-Sonaighuli and Barbari-Panjabari during 2012. The sample households in each area and urban locality have been selected purposively with locational and economic considerations towards having adequate representation of the way of life and various other characteristics as prevalent among the Misings.

Although the Misings are distributed almost throughout the state of Assam with varying size, their major concentration is in the riverine tracts of the upper Brahmaputra valley, mainly covering the districts of Dhemaji, Lakhimpur, Golaghat and Sonitpur. Prevalence of significantly higher average annual growth rate of Mising population in the urban areas than that of the rural areas during 1971–2001 is indicative of growing rural–urban migration among the Misings in Assam.

The present study indicates that the demographic position of Misings varies significantly with regard to birth rate, death rate, dependency ratio, sex ratio, mean female age at marriage, child-woman ratio and average family size in spatial term across the state in general due to various locational factors. The position of the urban Misings in this respect is, however, quite encouraging compared to their rural counterparts. While the literacy rate among the urban Misings is considerably higher than their rural counterparts, the rural–urban gap in this regard is very high among the females as compared to the males. This is also true in the case of educational attainment. However, the situation in the case of both literacy rate and educational attainment among Misings has been gradually improving in both rural and urban areas in the state.

It was observed during the field study that the Misings use their mother tongue/dialect amongst themselves and most of them know Assamese for day-today conversation with other communities in the state. However, some of the urban Misings of younger age groups are not carrying the tradition of speaking the Mising dialect. It is found that although the work force participation rate among the rural Misings is higher than the urban Misings in the state, the female work force participation rate in the urban areas is significantly lower than that in the rural areas. This is indicative of the lack of adequate employment opportunities among the female Misings in the urban areas.

From the foregoing discussion, it may be concluded that the slow improvement in economic conditions combined with the increasing impact of urbanization and modernization has brought in considerable changes in the household amenities among the Misings. The urban Misings witness higher standard of living compared to those in rural areas, though some of the Misings in the outskirts of Guwahati city still maintain a very low profile like that of the people from remote/interior villages. The level of socio-economic well-being among the rural and urban Meaning varies significantly, and it is found to be the highest in Guwahati city, followed by Jonai Bazar and No. 4 Ramdhan, and lowest in Somkong Pagro.

References

- Brower B, Johnston BR (2007) "Disappearing people? In: Brower, Johnston (eds) Disappearing people? Indigenous groups and ethnic minorities in South and Central Asia, Left Coast Press, Walnut Creek, CA, pp 9–36
- Chandna RC (2000) A geography of population: concepts. KalyaniPublishers, New Delhi, Determinants and Patterns
- Das M (2008) Education, Occupation and social change: towards a social geography of tribal women in Assam, An unpublished Ph.D. Thesis, Gauhati University
- Doley P (2013) The Misings in the rural and urban contexts of Assam: the case of Jonai revenue circle of Dhemaji District and Guwahati City, Unpublished M.Phil. Dissertation, Gauhati University
- Doley P (2014) Changing cultural practices among the rural and urban Mising tribe of Assam, India. IOSR J Hum Soc Sci 19(II):26–31
- Kaman R (2012) Changing Mising religion. In Pegu R (ed) Siyang Boggo, a souvenir of Mising Agom Kebang 20th biennal conference at Jonai, pp 178–182
- Kar BK, Sharma HN (1994) Women literacy in Assam. North Eastern Geogr 25(1 & 2):18-39
- Kar BK (2007) Population. In Bhagabati AK et al (eds) Geography of Assam. Rajesh Publications, New Delhi, pp 115–155
- Kuli JJ (ed) (2012) The Misings their history and culture. Kaustubh Prakashan, Dibrugarh
- Lego N (2005) History of the Mishings of Arunachal Pradesh and Assam. Peregrine Graphics, Itanagar
- Mipun J (2000) The Misings (Miris) of Assam: development of a new lifestyle. Gyan Publishing House, New Delhi
- Pegu NC (1956) The Miris or the Misings of the Brahmaputra valley. Tribune Press, Guwahati
- Pegu LN (2006) Impact of Hinduism and other religions on Mising religious beliefs, promising action, Jan-Feb 7–9
- Pegu I (2012a) Educational Problems of Mising Tribe. In: Pegu R (ed) Siyang Boggo, A souvenir of Mising Agom Kebang 20th Biennal conference at Jonai, pp 183–184
- Pegu M (2012b) Bayugnam Gomsar. Mising Agom Kebang, Jorhat
- Sangwan S, Sangwan RS (2002) Rural-urban divide: changing patten of social variables. Concept Publishing Company, New Delhi
- Sharma HN (1981) Socio-economic profile of a Rurban community near Guwahati: a geographical analysis. North-Eastern Geogr 13:1–7

- Sharma A (2004) Folk culture of the misings of Assam: tradition and change. Decent Books, Indiana University
- Singh, RPB and Singh, RS (2004) Cultural geography. In Sharma HN (ed) Progressing geography, 2000–2004, 30th IGC, Glasgow, 133–139

Taher M, Ahmed P (2007) Geography of North-East India. Mani Manik Prakash, Guwahati Taid T (2007) Glimpses. Dhemaji Offset Printers, Dhemaji

Tukbo T (2005) Cultural affinity of the Tani: Group. Promising Action, July-Aug 12-13

Secondary Data Sources

Census of India (1971) Assam, part 2-a, general population tables and part 2-c (1), social and cultural table

Census of India (1991a) Individual tables on scheduled tribes, Assam (Digital Format)

Census of India (1991b) Primary census abstract, general population, scheduled castes and scheduled tribes, series 4, Assam, part 2-B

Census of India (2001a) Individual tables on scheduled tribes, Assam (Digital Format) Census of India (2001b) Primary census abstract, series 19, Assam, Tables A5-A9

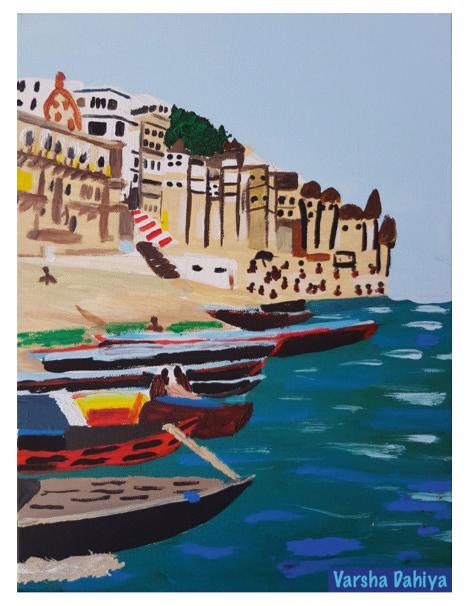


Pahari Doley (*M.Sc., M.Phil.*) is an Assistant Professor and Head in the Department of Geography, Devicharan Barua Girls' College, Jorhat, Assam (India). She completed her M.Sc. in Geography with specialization in Cartography from Department of Geography, Gauhati University in 2011 and received her M.Phil. degree in geography in 2013. Currently, she is pursuing Ph.D. under the supervision of Prof. B. K. Kar in the same University. Previously, she served as an Assistant Professor in Geography at Bajali College, Pathsala, Assam for about two years. Her areas of research interest include tribal studies, ruralurban dynamics, socio-economic well-being and cultural development.



Bimal Kumar Kar *M.Sc., Ph.D. (b. 1964)* is a Professor and former Head of the Department of Geography, Gauhati University, Assam (India). His fields of research interest include population, social, urban and health geography and development studies. He has to his credit more than ninety research articles published in national and international journals and edited books, and a few books on human geography including gender issues on North-East India. He also edited a number of books relating to regional and human geography. So far ten Ph.D. and twelve M.Phil. students have got their degrees under his supervision. He completed four research projects funded by UGC, ICSSR and Govt. of Assam. Besides Commonwealth Geographical Bureau (CGB), he is associated with many professional bodies of geographers and allied disciplines in the country. Presently Professor Kar is General Secretary of the North-East India Geographical Society (NEIGS), Vice-President of the Institute of Indian Geographers (IIG) and Executive Committee member of the Indian National Cartographic Association (INCA). He was General Secretary of Assam Science Society during 2009–2011. He also served as Editor of *North Eastern Geographer*, a research journal being published by NEIGS, for about a decade. He attended many national and international seminar/conference in India and abroad. The countries visited by him for the purpose include South Korea, UK, Bangladesh, Germany, Bhutan, Thailand, Malayasia, Singapore, Russia and China.

Pilgrimage and Tourism



Mother Ganga and Ghats, Varanasi Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

Lumbini, Nepal: The Birthplace of Buddha and the Powerful Place of Pilgrimage in the World



Padma C. Poudel

Abstract Pilgrimage places link human to the invisible forces and transform matter into spirit, human into divine in a space and time continuum. Special sacred places of most of the religions (Christianity, Islam, Hinduism and Buddhism) are powerful places in pulling the faith into spiritual movement. Such powerful places are the centre of convergence from diverse religio-societal base. All around the world, in different religion, various forms of powerful places such as Jerusalem, Rome, Mecca, Pashupatinath, Mansarovar, Kailash, Kashi and Lumbini are in existence. Connection of places with the important figures and events related to religion has acted as an amplifier to increase the power and the sentimental attachment of the pilgrims to those places. Being the birthplace and also Buddhas' advice to his disciples to visit four places—of his birth, attainment of enlightenment, his first sermon and his Parinirvana, Lumbini, Nepal has attained power of the place and the status of grand pilgrimage, for Buddhist population of the world. Similarly, other places connected with Buddha's life have been the focal points of visit to them and others who are peace lovers. The entire circuit of Buddhist pilgrimage sites needs to be developed accordingly. Both Nepal and India should develop policy and plan to use this type of touristic resources collectively and sustainably. This article attempts to discuss how Lumbini is a powerful pilgrimage place in the world.

Keywords Lumbini · Buddha · Pilgrimage · Grand · Special · Sacred places · Attraction · Religion · Divine power

1 Introduction

Pilgrimage is the movement of numerous peoples away from their home to a sacred site/place as an act of religious devotion (Stoddard 1997). It is a way of establishing two-way relationships between the pilgrim (men) and the divine. Also, it "equally involves searching for spiritual experience in special places and learning that these material places lie outside the spiritual, mystical, true reality" (Sopher 1987: 15). In

P. C. Poudel (🖂)

Central Department of Geography, Tribhuvan University, Kathmandu, Nepal

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_16

Sanskrit language pilgrimage means "*Tirthayatra* or *Tirthatan*", a journey to a sacred place (*Tirtha*) with a religious purpose or in search of spiritual solace. Pilgrimage (*Tirthatan*) as heavenly movement is visible, but the power that makes pilgrims move is elusive. Faithscape and places of pilgrimage (*Tirthas*) link humans to the invisible forces of god (the almighty) and transform matter into spirit, human into divine in a space time continuum. The luminal "*faithscape*" that is so created encompasses sacred places, sacred time, sacred meanings and sacred rituals (Singh and Haigh 2015). *Tirthas* are primarily those places where a god or goddess or some spirit has dwelled or is still dwelling. Such places possess an extraordinary quality, value or ambiance and act as a factor of spatial and social cohesion. Therefore, many pilgrimage places draw devotees through their reputation for granting some specific spiritual, social or material blessing usually expressed in terms of purification and healing of soul, mind and body (Stoddard 1997).

If touring is an outer journey in geographical space, then pilgrimage is the geographical expression of an inner journey. If touring is something largely oriented to pleasure seeking (and/or the satisfaction of curiosity), then pilgrimage is something that combines spiritual and wordily aspirations in places where the immanent and the transcendent mesh (Singh and Haigh 2015: 783). Bhardwaj (1973) suggests that the religious sentiment distinguishes pilgrimage from a touristic journey, and unless the visitor feels a sentimental attachment to the place of veneration, a journey to it will not constitute a pilgrimage.

Therefore, "religions provide the basis of pilgrimage by offering the reward of purification of the soul and the attainment of the objectives related to the problem of mundane existence" (Bhardwaj 1973: 1). Thus, tourist places and pilgrimage places (*faithscape*) have different values and meanings. Amongst the few outstanding pilgrimage places, Lumbini, the birthplace of Lord Buddha is one of the most powerful places in the world.

Tourist guidebook introduces Lumbini as pilgrimage tourist site where Siddhartha Gautam was born, where the ruins of old city, ruined foundation of a number of brick stupas and monasteries dating back from the second century BC to ninth century AD including a commemorative stone on a brick plinth, matching the description of a stone laid down by Emperor Ashoka in the third century BC exists (http: //www. lonely planet.com/Nepal; downloaded in 13 Sept. 2016).

According to UNESCO "Lord Buddha was born in 623 BC in the sacred area of Lumbini located in the Tarai plain of Southern Nepal, testified by the inscription on the pillar erected by the Mauryan Emperor Ashoka in 249 BC. Lumbini is one of the holiest places of one of the world's great religions, and its remains contain important evidence about the nature of Buddhist pilgrimage centres from as early as the third century BC. Additionally, there are the excavated remains of Buddhists Viharas (monasteries) of the third century BC to the fifth century AD and the remains of Buddhist stupas (memorial shrines) from third century to the fifteenth century AD. The site is now being developed as Buddhist pilgrimage centre, where the archaeological remains associated with the birth of Lord Buddha form a centre feature" (whc.unesco.org/en/list/666; downloaded in 13 Sept. 2016).

This paper attempts to discuss how Lumbini is a powerful pilgrimage place in the world, with the support of both primary and secondary information. Primary information was collected from the field survey conducted during March 2011, whilst secondary information was collected from the published books, pamphlets, dissertations, official records and concerning websites.

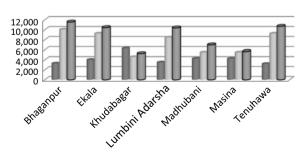
1.1 The Social and Demographic Characteristics of Places Around Lumbini

Lumbini Development Area lies in Rupandehi district of province no. 5 nomenclated as Lumbini Province of the country. Prior to 2014, it was surrounded by seven VDC (Fig. 3). Presently, Lumbini area lies in Lumbini Cultural Municipality. This municipality was formed by the Government decision of 18 May 2014, merging six other VDC (Bhagawanpur, Tenuhawa, Ekala, Madhuwani and Masina and Khudabagar) to the existing Lumbini Adarsha VDC. Population of this area increased notably between different census periods accounting 26,062 in 1991, 51,808 in 2001 and 61,157 in 2011 (Fig. 1). National population and housing census 2011 reported that Bhagawanpur VDC share highest percentage of population (18.9%) followed by Tenuhawa (17.5%), Ekala 17.1%), Lumbini Adarsha (17%), Madhuwani (11.5%), Masina (9.3%) and Khudabagar (8.7%), respectively.

Greater Lumbini area accounts for a higher growth rate of population than the national average. Amongst the districts of greater Lumbini area, Rupandehi demonstrates the highest growth rate in the last two censuses, whereas, Nawalparasi had the highest growth rate during the inter-census period of 1981–1991 (Fig. 2). This type of growth may be due to the migration of people from the hill districts. If the growth rate of 2001–2011 continues, the population of greater Lumbini area will double in 37.5 years (Fig. 2).

In all VDC surrounding, Lumbini (Fig. 3) has overwhelming population of Hindu and the number of Muslim population is remarkable. Comparatively Buddhist population is low in all VDC, accounting lowest in Ekala (0.02%) and (0.02%) Lumbini Adarsha VDC (Table 1).

Fig. 1 Changing Population in Lumbini Area. (*Source* Different Records of Population Census, CBS, NPC, GON) Gon.)



■ Population in 1991 ■ Population in 2001 ■ Population in 2011

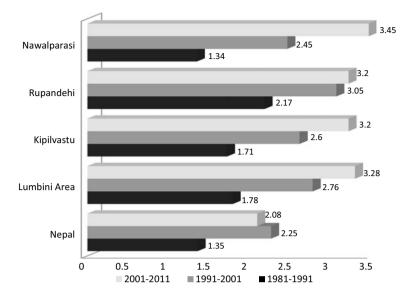


Fig. 2 Changing growth rate of population in greater Lumbini area

Total pop	Hindu	Buddhist	Marthur	0.1
		Duuumst	Muslim	Others
11,577 100)	9840 (85.0)	8 (0.07)	1716 (14.82)	13 (0.11)
10,471 (100)	6976 (66.62)	3 (0.02)	3490 (33.33)	2 (0.02)
5291 (100)	3607 (68.17)	12 (0.23)	1670 (31.57)	2 (0.03)
10,402 (100)	5896 (56.7)	4 (0.02)	4501 (43.28)	1 (0.01)
7002 (100)	6181 (88.30)	37 (0.53)	782 (11.17)	2 (0.03)
5692 (100)	3229 (56.73)	16 (0.28)	2446 (42.97)	1 (0.02)
10,722 (100)	2733 (25.5)	39 (0.36)	7935 (74.0)	15 (0.4)
61,157 (100)	38,462 (62.89)	119 (0.19)	22,540 (36.86)	36 (0.06)
	10,471 (100) 5291 (100) 10,402 (100) 7002 (100) 5692 (100) 10,722 (100)	10,471 (100) 6976 (66.62) 5291 (100) 3607 (68.17) 10,402 (100) 5896 (56.7) 7002 (100) 6181 (88.30) 5692 (100) 3229 (56.73) 10,722 (100) 2733 (25.5)	10,471 (100) 6976 (66.62) 3 (0.02) 5291 (100) 3607 (68.17) 12 (0.23) 10,402 (100) 5896 (56.7) 4 (0.02) 7002 (100) 6181 (88.30) 37 (0.53) 5692 (100) 3229 (56.73) 16 (0.28) 10,722 (100) 2733 (25.5) 39 (0.36)	10,471 (100) 6976 (66.62) 3 (0.02) 3490 (33.33) 5291 (100) 3607 (68.17) 12 (0.23) 1670 (31.57) 10,402 (100) 5896 (56.7) 4 (0.02) 4501 (43.28) 7002 (100) 6181 (88.30) 37 (0.53) 782 (11.17) 5692 (100) 3229 (56.73) 16 (0.28) 2446 (42.97) 10,722 (100) 2733 (25.5) 39 (0.36) 7935 (74.0)

 Table 1
 Population in surrounding VDC of Lumbini, Nepal, by Religion (2011)

Others include Kirat, Jain, Sikh, Bahai and not stated

Figures within parenthesis indicate percentage. (Source CBS 2012)

Note Government decision of 18 May 2014 merged 6 VDC in Lumbini Adarsha and created Lumbini Sanskritik Municipality

Of the total population of the world in 2019, (7559.27 million) 6.77% are Buddhist and 13.8% are Hindus (www.livepopulation.com). Hindus pay homage to Lord Buddha equally as Hindu deity. If 5% of Buddhist population (24.79 million) and 2% of Hindus (20.21 million) visit Lumbini, it receives 44.90 million pilgrims annually, along with other tourists of other faiths (Fig. 3).



Fig. 3 Lumbini Sanskritik municipality including Lumbini development Area and merged 6 VDC)

2 The Concept and Context

Pilgrimage is a cosmic drama of places on Earth (constructed or open) in which gods, men and other living beings are the actors. It not only includes visiting a sacred place but also implies faith and spiritual exercise of the human mind. Preston (1992) used the term 'spiritual magnetism' for such places to emphasize the pull of the place. Scholars tend to consider such magnetism more generally as the power of places (Poudel and Singh 1994; Poudel 1996), special places (Swan 1992, 1994) and powerful places (Noschis 1994) and energies of places (Rapoport 1982).

Certain religious places are special and believed to generate magnetism on peoples' consciousness (Dubisch 1995: 72). Such special sacred places in nature act as amplifiers and portals to other worlds, allowing man and myth to come closer together as well as creating a condition where truth is alive, fresh, creative and always subject to change. In such places, people expect that each time the spirit world is contacted, the experience will be fresh and different and revelations are possible and

desirable (Swan 1992: 125). Hence, pilgrimage can be described as the resultant of power of place and power of religious sentiment.

The power in the sentiment is mainly created as a reflection of happenings and behaviour of the society, family, fellow beings and the surroundings, whereas, the power of place is reflected in combination of the feelings, the interaction of diverse physical, sociocultural and psychological factors. Therefore, pilgrimage to sacred places (*Tirthayatra*) not only means the physical act of visiting a holy site but also implies mental and moral disciplines (Bhardwaj 1973: 2) and serves many purposes such as social, spiritual and psychological, etc. Walter (1988: 117) suggests that "the quality of a place depends on a human context shaped by memories and expectations, by stories of real and imagined events—that is, by the historical experience located there".

Religion and faith in religious mythology are the primary creator of sentiment, and religio-societal base are the initiator of pilgrimage. Association of the place with religious texts, the structures and scriptures founds about the places play a crucial role in pulling the faith into spiritual movement. It is driven, relatively, from the space of individuals to the family-friends, family-friends to relatives and relatives to the society. All around the world various forms of powerful places are in existence. Such powerful places are named after famous events and the legendary events from the lives of gods and goddesses such as Jerusalem, Vatican City (Rome), Mecca, Muktinath, Pashupatinath, Krishna Gandaki, Mansarovar, Himalaya, **Lumbini**, Bodhgaya, Sarnath and Kushinagar. Some of such places are marked by human made structures, whilst others have little or no markings and exist completely in their natural state. The powerful holy places to which pilgrims from diverse religions converge are found distributed in different parts of the earth. Most of the major pilgrimage sites of the world are located in areas of middle latitude (20°–50°), moderate climate (Stoddard 1994: 34).

3 Buddhism and the Power of Place Lumbini

Since ancient times, pilgrimages have been one of the most visible manifestations of religious and spiritual devotions as well as motivators of mobility. Pilgrimage is deeply rooted in all religions, though their meaning, form, functions and rituals vary, depending upon the declaration of the authorized religious literatures and the religio-sociocultural structure of the society.

Buddhism is a religion based on the spiritual and moral precepts of Siddhartha Gautama, an enlightened teacher known as the Buddha, who stressed liberation from the cycle of suffering and rebirth (Kelsang 2007: 8). Buddhism, like all the major religious traditions, has a strong attachment to particular geographical places (Mayer 1994: 142). A Buddhist, like the Buddha, attempts to lose anger, anxiety-depression, insecurity, fear of old age and death. Therefore, they are involved in pilgrimage to the sites associated with the Buddha. Amongst the Buddhist, the strong desire

to undertake pilgrimage came from the Buddha's advice. Before he passed into Mahaparinirvana, the Buddha advised his disciples to visit four places.

After I am no more, Oh Ananda! Men of belief will visit with faithful curiosity and devotion that four places—where I was born..., attained the enlightenment ..., gave the first sermons... and where I passed into parinirvana (Mahaparinirrvana-Sutta:199; Gautam Buddha as cited in Gurung 1998: 110; San 2001: 17).

Therefore, the four places connected with the Buddha's life derived the power as the focal point of Buddhist pilgrimages. Amongst the four places, the beginning and foremost important site, where Siddhartha Gautama was born, are Lumbini (Western Tarai, Nepal); the second Bodh Gaya (Bihar, India) where he attained enlightenment and came to be called the Buddha, the awakened one; the third is Sarnath (Varanasi, India) where Gautama Buddha gave his first sermon and the fourth is Kushinagar (Deoria district of Uttar Pradesh, 130 km South of Lumbini and 55 km away from Gorakhpur, India) where he attained Mahaparinirvana at the age of 80 (Fig. 1). Buddha's advice to his disciples to conduct pilgrimage with the feeling of reverence connected to these four places—each of which is related to a particular event of his life—may be the factor for their inspiration for such religious and spiritual journeys.

After the death of the Buddha, the relics of his body were collected from the funeral pyre and were divided into eight parts. These were distributed to the eight claimants: King Ajatasatta of Magadha; the Lichavis of Vaishali; the Sakayans of Kapilvastu; the Bulians of Allalappa; the Koliyans of Ramagrama; the Brahman of Vethadipa; the Mallas of Pava and the Mallas of Kushinagar (San 2001: 97). Stupas, and burial mounds, were erected on the relics. Believers of Buddhism began to visit these places to pay respect to Lord Buddha. This practice of visiting these places of Buddhist religious importance started to gain positive connotations to achieve personal advantage such as rebirth in a good location and to honour the great master, which gradually developed as a cultural custom of pilgrimage. This custom of pilgrimage spread widely amongst Buddhists for many centuries and is now common to both the Mahayana and Theravada traditions (http://www.buddhanet. net/ accessed Aug. 20, 2012). One of the noticeable factors associated with Gautama Buddha is that all the major events (birth, enlightenment, first sermon and death) happened in an open environment, under the tree, which is an indication of the fact that Buddha was a nature lover.

Besides the four places (place of birth, place of enlightenment, place of first sermon and place of death) mentioned by the Buddha himself, the Great Emperor Ashoka, popularly known as 'Ashoka the Great', the Emperor of India's Maurya dynasty, who ruled most of the Indian subcontinent from 269–232 BC, added four other places, i.e. Savatthi, Sankasia, Rajagaha and Vaisali as other important Buddhist pilgrimage places that have connection with the Buddha's life and miracles. Visiting all these eight places—Lumbini, Bodh Gaya, Sarnath, Kushinara, Savatthi, Sankasia, Rajagaha, Vaishali (Fig. 4) will fulfil "*Dhammayatra*" or pilgrimage piety (San 2001: 17).

Besides these, other places in Nepal like Tilaurakot (the home land of Suddhodana and native town of Gautama, the capital of Sakya) where Mayadevi conceived

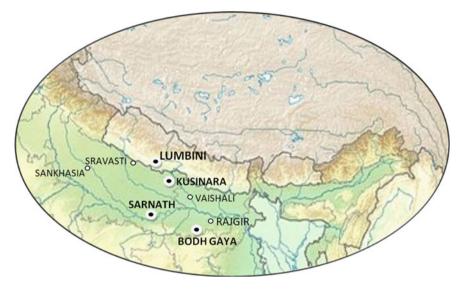


Fig. 4 Grand place of Buddhist pilgrimage

Gautama as her pregnancy and where Gautam grew up and lived for 29 years and the place Kolia of Devdaha, the maternal home of Gautama, where Mayadevi (his mother, the daughter of his father's uncle) was born and grown (Fig. 5), have also

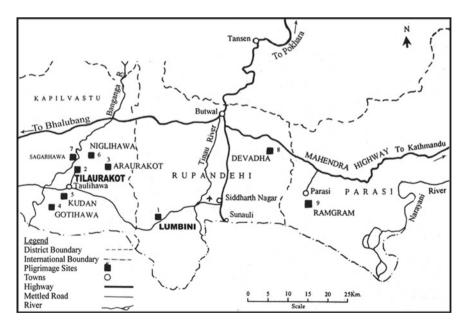


Fig. 5 Buddhist pilgrimage sites within and around Lumbini, Nepal

Picture 1 Ashoka pillar 6.7 m without its horse capital. (*Source* Lumbini Development Trust)



Picture 2 Mayadevi temple before restoration. (*Source* Lumbini development trust)



played a crucial role in creating the sentiment amongst Buddhists for pilgrimage to these locations. Devdaha has the credit of the place where Gautama spent parts of his childhood, the foundation age of mind, good thinking and behaviour. During his childhood, prince Siddhartha preferred going to Devdaha. He paid several visits until he was at Kapilvastu (San 2001: 69).

4 The Lumbini and the Periphery

4.1 The Lumbini

Lumbini, the birthplace of Siddhartha Gautama (105 m asl) is located $(27^{\circ}46'55''$ N and $83^{\circ}27'49''$ E) in Rupandehi district, province 5 named as Lumbini Province,

central Terai of Nepal, 24 km South of Himalayan foothills of Siwalik range. It is 327 kms South-West of Kathmandu, 175 kms South of famous tourist destination Pokhara and 23 kms West of Siddhartha Nagar (Bhairahawa). It is 5 kms North from Sunauli, a town located at the international border with India. Regular bus service at half-an-hour intervals connects Lumbini with Bhairahawa. The national highway called Siddhartha links Bhairahawa with Pokhara and from Lumbini; it takes 30 min travel time by bus to arrive at the road head of national highway. Gautama Buddha airport located at Siddhartha nagar opened in 1958 and being upgraded into an international airport, since 2015 is expected to complete by December 2019.Upon the completion of this airport, it is hoped to boost arrivals of international Buddhist pilgrims to Lumbini.

Land around Lumbini is mostly a gently sloping plain that is characterized by the presence of Tinau, Rohini, Danab, Kothi, Mahaya, Kanchan and Badhela as the main streams, and Nanda Bhauju and Chilhiya as the main lakes. The geology of Lumbini area is primarily stream/river born alluvium characterized with tropical and subtropical climate recording the maximum temperature 35 °C (May) to minimum 4 °C (December) and average annual rainfall of 1391 mm.

Administratively, Rupandehi district is divided into 16 local administrative units counting one sub-metropolitan (Butawal), 5 municipalities (Devdaha, capital of Koliya Kingdom, 7 km East of Lumbini; Lumbini Sanskritik 112.21 km²; Sainamaina; Siddhartha and Tilottama) and 10 rural municipalities locally termed as Gaunpalika (Gaidahawa; Kanchan; Kolahimai; Marchawari; Mayadevi; Omsatiya; Rohini; Samarimai; Siyari; and Shuddodhan). In terms of population, it is the third largest district of the country with a population density of 647.2 Km². Recently (8 May 2014), Lumbini has been declared as Sanskritik (Cultural) Municipality (61,157 population) combining seven VDCs of the area, namely- Lumbini Adarsha, Bhagawanpur, Khudabagar, Ekala, Madhuwani, Tenuhawa and Masina (Table 1 and Fig. 3). Now, Lumbini Development Area lies in Lumbini Sanskirtik Municipality. In Lumbini Sanskirtik Municipality, the majority of the populations (75%) are Hindus followed by Islam (8%), Buddhists (5%) and others by religion (CBS 2012).

During 1971–1991, the overall density of Lumbini area was lower than the density of Tarai area as a whole. By 2001, the density of Lumbini area (333.3 persons per square km) has exceeded the density of Tarai as a whole (329.6 persons per square km). In 2011, the population density of Lumbini area (398.4 persons per square km) accounted 6.9 higher than that of Tarai (391.5).

Until five decades ago, the Lumbini area was forested with sparse habitation owing to endemic malaria. However, the historical evidence suggests that the place was under continuous habitation from the sixth century BC to the fourteenth century AD (Gurung 1998: 99). The image of Mayadevi in nativity sculpture dates back to fourth century (Picture 3), and the epigraphic evidence engraved on the stone pillar by the famous Maurya Emperor Ashoka in 249 BC, written in Brahmi script and Pali language that appear still intact (Picture 1), testifies the authenticity of Lumbini village settlement and as the birthplace of the Buddha. The English translation of the script follows:

Picture 3 The nativity sculpture dating back to 4th CE. (*Source* Lumbini Development Trust)



King Piyadasi (Ashok), the beloved of the Gods, in the twentieth year of reign, himself made a royal visit. Sakyamuni Buddha was born here, therefore, the (birth spot) marker stone was worshipped and a stone pillar was erected. The lord having been born here, the tax of the Lumbini village was reduced to the eighth part (only).

The restored Mayadevi temple that consists the remains of the foundations of the early temple date back to third century BC with the birth marking stone (70 cm \times 40 cm \times 10 cm), the nativity sculpture dating back to 4th CE, which shows Mayadevi, holding a branch of a tree by the right hand for the support of delivery and the younger sister, Prajapati, supporting the standing posture of Mayadevi (Picture 3), the holy pond Pushkarni (Picture 8) where Mayadevi bathed before the delivery, are the main historical and holy artefacts of Lumbini.

Queen Mayadevi and king Suddhodhana did not have children for twenty years of their marriage. According to the legend, Mayadevi conceived when she dreamed of a divine white elephant entering her body from the right side. After ten lunar months of this event, in the month of May, 642 BC, on Tuesday, the full moon of Vaisakha, the sixth month of the lunar calendar, when Nakshatra was Wisa in Anjana Era 68 (Mukherji and Smith 1901: 8). On her way to her parent's home Devdaha, whilst relaxing in Lumbini under a Sal Tree, Mayadevi felt labour pain and gave birth to little Siddhartha (literally, "one who has accomplished his goal"). According to Majjhima Sutta number 123 (as cited in San 2001: 68), as soon as Bodhisatta was born, he took seven steps to the North and declared his position in the world as

Aggo'ham asmi lokassa – I am the chief in the world; *Jetto 'ham asmi lokassa* – I am the highest in world; *Setto 'ham asmi lokassa* - I am the noblest in the world; *Ayam antima jati* this is my last birth; *Natthi dani punabbhavo* – there is no more becoming for me.

It is pointed out by the literature that the temple of Mayadevi was constructed over the foundation of more than one earlier temple or stupa, and this temple was probably built on an Asoka stupa itself. On 4th February 1996, a team of UN sponsored archaeologists announced their dig beneath the temple foundation unearthed a "flawless stone" placed there by Ashoka in 249 BC (more than 2600 years ago) to mark the precise location (Picture 4) of the Buddha's birth (San 2001: 70). Afterwards UNESCO in its 21st session in 1997 announced the site as a World Heritage site. Because of these facts, Lumbini has become the centre of holy faith for millions of Buddhists and peace lovers all over the world. The birth of Buddha in Lumbini added the power of this place by connecting it with the supernatural force and thus giving it super spiritual significance. Therefore, a visit to Lumbini, the birthplace of the Buddha, is not only for spiritual enlightenment but also for the connection with supernatural force for solace and satisfaction. For the pilgrims and the peace lovers, this place gives the strong feeling of belongingness (see Pictures 5, 6, 7 and 8).

Picture 4 Marker stone of birth spot placed by Ashoka (The marker stone shaped, like a womb, was placed on the top of a brick shrine built by king Ashoka in 249 BC to worship the very spot where Buddha was born). (*Source* Lumbini Development Trust)



Picture 5 Preserved archeological sections of Mayadevi temple. (*Source* Lumbini Development Trust)



Picture 6 Preserved archeological sections of Mayadevi temple. (*Source* Lumbini Development Trust)

Picture 7 300 years old Bodhi tree and Pond Pushkarani where Mayadevi bathed her newly born child Gautama. (*Source* Lumbini Development Trust)

Picture 8 Pilgrims of different countries are praying in front of Ashoka pillar. On the left side appears Mayadevi temple excavated in 1996 and reopened on 16 May 2003 on the 2547th birth anniversary of Lord Buddha. (*Source* Lumbini Development Trust)



The Lumbini Development Master Plan, prepared under the funding of US \$1 million and completed in 1978, covers an area of 3 square miles (7.7 sq km), comprising zones of a square mile each. The three zones extended from South to North—sacred garden zone, monastic zone and new Lumbini village zone, are linked with walkways and a canal. According to the designer architect Kenzo Tange, the overall aim of the plan is to create an atmosphere of spirituality, peace, universal brotherhood and non-violence consistent with the time and Buddha's message to the world and to support for visitors (pilgrims and tourists) as residence of monks, research, international meetings and teaching. The central link (walkways and a canal) establishes the solitude and sanctity of the sacred garden, with its pillar and spectacular panorama of the Himalaya, and offers pilgrims time and space to prepare themselves as they approach the sacred garden (Gurung 1998). The sacred garden shelters the ancient monuments at the centre in a freshly restored atmosphere of serene and lush forest and water body surrounding the complex.

4.2 The Tilaurakot

Tilaurakot, the ancient capital of Sakya kingdom (Fig. 5), in Kapilvastu district is located 25 km West of Lumbini geographically located at $27^{\circ} 34' 30''$ N and $83^{\circ} 3' 30''$ E. Fuhrer (1972) opines that the ancient Kapilvastu (the capital city) includes greater area including Kudan, Gotihawa, Naglihawa, Sagrahawa and being Tilaurakot the inner or core city where the Shakayan palace was situated. The kingdom was established by the banished sons and daughters of Okkaka (lkshvaku), who hailed from Saketa, the capital of Kosala kingdom. The king banished his four sons and five daughters to ascend Jantukumara, his son from another queen Jayanti in the throne. The exiled princes and princesses travelled to the Himaval (Malalasekera 1983: 970).

In the prehistoric times, the site of Kapilvastu was the dwelling place of a saint named Kapila Muni. Here, the Sakya kingdom was organized by the exiled sons of the Kosala King Okkaka (Rijal 1979: 2). Exiled sons of Kosala king settled in the Sal (Shorea robusta) forest on advice of sage Kapila near his hermitage and developed the area into a prosperous kingdom known as Kapilvastu, in due course. Bidari (2004: 158) referring to some ancient Buddhist source demarcates the border of Kapilvastu kingdom to be the Himalaya in the North, Pava and Kushinagar in the South, the Rohini River in the East and the Rapti River in the West. The archaeologists argued for about hundred years to confirm, whether the site Tilaurakot is an ancient Kapilvastu, after meticulous research and archaeological excavations carried out (the fort, the fortification wall, the gate, Kanthaka stupa, North-East pond, Sami Devi temple, the palace site, metal workshop, ancient roads, pottery, terracotta figurines, coins stone objects, Sakya token and sealing and other objects). The excavation works and the conclusion of archaeologist Fuhrer, (December1897-March 1898); Mukherji and Smith (3 February-29 March 1897); Mitra (1962); Mishra (1967–1972); Rijal, (1972– 1973); early Buddhist literary sources and Chinese travellers (fourth century; Huien Tsiang, 629 AD) description played prime role in determining the site of Tilaurakot.

The situation of Tilaurakot can be understood from the writing of travellers Fa-Hsien (339–414 AD) and Huien Tsang (629 AD), the city of Kapilvastu was deserted and in ruins, without people or king. There were some monks and score or two families of common people. At the old palace of king Siddhartha, there were images of the prince and his mother (Mishra 1986: 13).

Located at the lap of the Siwalik Himalaya range and in the South-Western plain, in the clear weather, Mountain Dhaulagiri is visible from Tilaurakot (Mishra 1986). It consists of ruins of an ancient Sakya palace, compounded by a fortified wall. After birth in Lumbini, Gautama Siddhartha was taken to the palace of Tilaurakot, Kapilvastu, where he grew to the age of 29 years as the crown prince of Suddhodhana. Siddhartha lost his mother only seven days after his birth and was brought up by his stepmother Prajapati Gautami at Tilaurakot. He was married at the early age of 16, with the daughter of Sakya Suppabuddha and sister of Devadatta named Yasodhara also called Bhaddakachchana. For nearly 13 years after the marriage, he led a luxurious life at the palace of Tilaurakot. However, the pleasure and opulence of Tilaurakot palace could not satisfy the revolting mind of Gautama Siddhartha and since the prime of youth; he started to think the variety of the worldly pleasure and cultivated a thirst for realizing the real cause of the miseries in human life (Rijal 1979: 6).

Therefore, these places, Tilaurakot and Kolia of Devadaha (Fig. 6), the maternal home places have played ecological and leading societal role in germinating the seed of Siddhartha and motivating him to leave the finest upbringing and the luxurious life of the palace, to know the answers of three question in his mind, why humans had to be sick? Old? And die? In the midnight, he secretly left the palace, wife Yasodhara and son Rahul, accompanied by Channa and his horse Kanthaka, to live a new life. Despite his father's efforts to hide him from the sick, aged and dead ones, Siddhartha saw all of them and was motivated for meditation. Travelling to several places he arrived at Bodhgaya, performed 49 days of meditation and attained enlightenment at the age of 35 years. Therefore, Tilaurakoat acquires and needs to be credited as the one of prime sites for Buddhist pilgrimage. Rijal (1979: 1) writes:

The Sakyan capital of Kapilavastu, where Gautama Siddhartha, amidst the comforts and prosperity and had realized the universality of sorrow and miseries can rightfully claim to be the "first" Great Holy Places of Pilgrimage. It is really the centre of spiritual contemplation and material prosperity since the lifetime of Gautama Siddhartha.

About the luxurious life at the palace as prince he states:

I was delicate, excessively delicate. In my father's dwelling three lotus ponds were made purposively for me. Blue lotus bloomed in one, red in another and white in another. I used to sandal – wood that was not of Kasi. My turban, tunic, dress and clock were all from Kasi. Night and day, a white parasol was held over me so that I might not be touched by heat, cold, dust, leaves or dew.

There were three palaces built for me - one for the cold season, one for the hot season and one for the rainy season. During the four raining months, I lived in the palace for the rainy season without coming down from it whilst entertained all the by female magicians. Just as, in the houses of others, food from the husks of rice together with sour gruel is given to the

slaves and workmen, even so, in my father's dwelling food with rice and meat was given to the slaves and workmen (WWW. life_ of_ Buddha.htm, downloaded in 7 August 2017).

These facts clearly show how the social environment of the palace like Tilaurakot and the surroundings have played a special role in bringing a turning point in Siddhartha Gautam's life and making him Gautam Buddha, the enlightened one.

As written in the display board at the Western gate of Tilaurakot palace area, the Western gateway is flanked by two brick bastions—a 19-feet wide road, paved with brick leads from the gateway into the citadel—on both side of the road, inside the gate, are brick plate forms- some copper coins, an iron spade, an iron chisel and other metal objects were found near the gate. Similarly, the Eastern gateway also known as "*Mahabhinishkarmana Dwara*" is the gate from where Lord Buddha left his worldly life. This gate complex consists of a 19-feet wide way flanked on either side by bastions. Objects found in the excavation include terrace human and animal figurines, coins, beads, bangles and Northern black polished wares. In the year 2011, excavation was again started on March 14 (Pictures 9 and 10).

Picture 9 Ruins of Tilaurakot palace. (*Source* The author, March 2011)



Picture 10 Excavation was continuing. (*Source* The author, March 2011)



Araurakot: Araurakot lies about nine kilometres North-East of Tilaurakot. It is identified as natal town of Kanakmuni Buddha. It is the rectangular fortified area that contains a moat with heaps of ancient ruins.

Gotihawa: Gotihawa lays 5 km South-West of Taulihawa town and is considered the natal town of Krakuchanda Buddha. It is believed that Krakuchanda Buddha (who came before Sakyamuni Buddha was born) attained nirvana at this place. This place has the ruins of ancient habitation, stupa and monasteries. At the centre of the main mould lies remains of a broken Ashokan pillar with the upper part missing.

Kudan: Kudan village is located four and half km South of Tilaurakot. It is the site where the Sakyamuni Buddha and his father Suddhodhana met for the first time after Buddha's enlightenment. In the vicinity of the village, there are huge mounds of structural ruins and a water tank nearby that appears to be the wreckage of stupa and monasteries. According to Mukherji and Smith (1901), the remains are those of Nigrodharma where king Suddhodhana met Lord Buddha.

Sagrahawa: It is located 3.5 km North of Tilaurakot and 12 kms North of Taulihawa and West of Banganga River, along Lumbusagar Lake. It is said that at this site about 70,000 Sakyas were massacred by the king Virudhaka. There are several hundreds of thousands of stupas, built by the descendents in memory, of the spot where the members of the Sakya were slaughtered. German archaeologist Fuhrer excavated these stupas during 1897–1898 (Fuhrer 1972).

Niglihawa: Huen-Tsiang in his travelogue of his visit 329 AD writes:

To the North-East of the town of Krakuchhanda Buddha (Gotihawa), going 30 li (8.6 km, we come to an old capital (or great city) in which there is a stupa to commemorate the spot where the Bhadra-Kalpa when men lived to the age of 40,000 years. Kanakmuni Buddha was born at this site (Huen-Tsiang as cited in Rai, nd.).

4.3 Devadaha

Located in Rupandehi district, central Terai, 35 kms East of Lumbini, Devdaha is considered as the ancient capital of Koliya Kingdom (Fig. 6). The word Koli is associated with the name of a village. It is suggested that it was the place where Kolias of Ramagrama coming from Terai region to the immediate West of the River Gandaki had settled after migration (Regmi 1983: 172). This place is the maternal home, and in-laws home of Prince Siddhartha, where he spent his childhood. After seven years of his enlightenment, Lord Buddha had visited Devdaha and ordained the flowers of Jain Sadhu Nirgrantha Nathputra.

Mayadevi's father was Anjana, the son of Devadaha Sakya and her mother Yashodhara, the daughter of Jayasena. The name of Devadaha is associated with the lake (Dev = Devine and Daha = lake) where the Koliyan kings held their sports in it.

Devdaha conservation academy (WWW.devdaha.com.np) writes that the stone pillar, erected by the Emperor Ashoka in 249BC during the visit of his 20th year of coronation, is the first epigraphic evidence relating to the life of Lord Buddha.

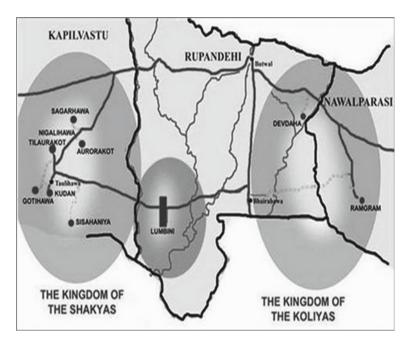


Fig. 6 Pilgrimage sites in greater Lumbini area (not to scale)

The inscription engraved in it is still intact and testifies to the authenticity of the birthplace of Lord Buddha's mother and his wife.

However, the news at Kantipur daily (2011–05–7) writes: The "unverified ruins" of old bricks and foundations can be found in four different locations at Devdaha. The places are Kanyamai, Bairimai, Bhawanipur and Khayar Danda; all worshipped as religious shrines by the Buddhists these days. A senior archaeological officer at the department of archaeology, Prakash Darnal, said locals of all the four places have been claiming the particular area to be the palace of the old Kwaliya kings who were also the maternal uncles of Buddha. However, as there cannot be four places in such a small area, Darnal mentions that all four locations have equal chances of coming out as the palace of Buddha's maternal uncles.

"Others may be the ruins of other monuments and monasteries", he added. Out of the four locations, excavation was carried out only at Kanyamai this time. The excavation was conducted by digging two squares of 10/10. Although the excavation did not go below one metre, Darnal said they unveiled two important structures and brick foundations. "We unveiled two important square structures moving horizontally", he said. "Findings only within one metre depth clearly indicate there is something more. However, because of sporadic rainfall, we could not continue with the excavation work. The work will resume next winter from Kanyamai". According to Darnal, the exact palace of Buddha's maternal uncles can be found with evidence only after successful excavation in all the four locations. "Excavation is a slow process which may take years", he said. "What lays underground at all four places is still a tentative mystery".

4.4 Ramgrama

East of Devdaha village and 4 km South-East of Parasi town of Nawal-Parasi district, lies Ramgrama village. Beside the bank of Jharahi Khola in Kerwani village, a huge stupa mound of baked brick measuring 30ft high and 70ft diameter exists (Gurung 1998: 101). About this mound Bajracharya (1998: 6–7) writes: "some five scholars tried to identify the place by the name Ramgrama of Koliyas and the dome as stupa. It is believed that the ruined stupa contains relics of Lord Buddha, which was obtained by the Koliyas of Ramgrama". Also, it is said that the stupa was built by the king of Ramgrama who was the eighth king to obtain the Buddha's relics.

Enlisted as UNESCO's tentative list of World Heritage property in 1996, Ramgrama is a site of great archaeological and pilgrimage importance as the stupa is believed to be the only stupa that was not interfere by Emperor Asoka in the third century BC and hence still contains the body relics of Lord Sakyamuni Buddha. Amongst the eight Lord Sakyamuni Buddha's relic stupas, this is the only one which is still in its original form. Therefore, it is one of the holiest pilgrimage sites for Buddhists and they dream of making a pilgrimage to Ramgrama at least once in their lifetime.

5 An Account of Pilgrimage to Lumbini

The early pilgrimage history of Lumbini and its periphery is credited with the travel accounts of Chinese travellers. Amongst them, the pioneers were Fa-Hsian (403AD) and Huien-Tsang (629 AD). Fa-Hsian in his travel account (Fo-Kwa-Ki, records of the Buddhist country) writes: "50 li (14.41 km) to the East of the city Kapilvastu is Lumbini" (Bel 1996: 48; San 2001: 18). Another Chinese pilgrim Huien-Tsang visited Lumbini in 629 AD at the age of 27 and prepared account of Lumbini, Kapilvastu, Kudan, Gotihawa, Niglihawa, Sagrahawa and Ramgrama. About the visit he wrote:

We came to Layani (Lumbini) garden. There is a bathing tank of Sakya, and the surface was covered with mixture of flowers. To the North of this 24 or 25 pace, there is Ashoka's flower tree which is now decayed. At this place, Bodhisattva was born on the eighth day of second half of the month called Vaisakha (Bel 1994: 80–81).

However, the authenticity about the pilgrimage to Lumbini is found in a stone pillar inscription engraved by Emperor Ashoka, the third of the Mauryan rulers of India. He visited Lumbini accompanied by his spiritual teacher Upagata in 249 BC (Rijal 1979: 12). After Ashoka, the pilgrimage of *Khasa* king Ripu Malla in 1312 AD is

notable in bringing wide publicity to Lumbini. He engraved an additional inscription on the North side of Ashoka pillar. Thereafter, the history of pilgrimage to Lumbini reverts to wilderness for nearly six centuries, until the discovery of Ashoka pillar on 1 December 1896 by General Khadaga Shamsher Rana, then governor of Palpa and Dr. A. Fuhrer, a famous German archaeologist. This event confirmed that Lumbini was indeed the birthplace of Buddha (Rijal 1979).

This was soon followed by the visit of archaeologist Purna Chandra Mukherji in 1899 (Mukherji 1969). Similarly, Mahadan Upasak of Jhonche Tole of Kathmandu visited and resided at Lumbini and appealed to the then prime minister of Nepal in 1930 for the restoration work of Mayadevi temple, sacred pond and Ashoka pillar area. Consequently, Kaiser Shamsher took initiation for excavation during 1932–1939 (Gurung 1998: 99). Thereafter, peace loving dignitaries from different countries of the globe including UN secretary-general U Thant visited Lumbini and then different activities (Table 2), which was covered by various means of media and publicized Lumbini as a grand pilgrimage centre.

Arrival of international pilgrims to Lumbini has fluctuated. In between two and half decades (1992 to 2017), the arrivals of international tourists (excluding Indian

S.N	Activities	Year
1	UN secretary-general U Thant visited Lumbini	1967
2	Formation of international committee for the development of Lumbini	
3	Identification of Lumbini as an important tourist site by Nepal tourism master plan	1972
4	Completion of Lumbini development master plan by Kenzo Tange	1978
5	Approval of master plan by Nepal Government	1985
6	UN International committee approved the master plan	1985
7	Establishment of Lumbini development committee	1985
8	Excavation of marker stone at nativity site	1996
9	Inclusion of Lumbini as World Heritage site by UNESCO	1997
10	1st Buddhist summit "Lumbini as Foundation of World Peace"	1998
11	International Buddhist conference	2001
12	Restoration of Mayadevi temple	2003
13	2nd Buddhist summit	2004
14	Nepal Government declared "Visit Lumbini Year"	2011
15	Held Lumbini international steering committee meeting at Lumbini	2017, 2018
16	President of Sri Lanka, Sirisena visited Lumbini 1 September	2018
17	Visit Lumbini Year 2067BS was celebrated at Lumbini in 17–19/May	2019
18	Lumbini master plan area and adjoining areas declared as Panchasila Kshetra 21 November	2019
19	1st international conference on "Religion and Culture in Conflict and Peace: Reconciliation and peace building in South Asia" held 26–27 May	2019

 Table 2
 Notable activities for the development of Lumbini

and Nepalese tourists) increased by 1,113.3% recording a continuous increase after 2004 (GON 2017). High fluctuation in arrivals was noticed between 1998 to 2003 (Fig. 7). Number of pilgrims to Lumbini decreased in 2015 because of the devastating earthquake and political instability in the country.

By season, the arrival of tourists is lowest in the month May (544) followed by June (1392), July (2457) and highest in the month of March (28,511). However, February, March, October and November are the most preferred months for visiting Lumbini (Fig. 8).

An attempt to estimate the nature of vehicle and size of Indian visitors to Nepal by land route from eight entry points (Rani/Birtnagar, Vittamod/Janakpur, Birgunj, Belhiya/Bhairahawa, Nepalgunj, Dhangadi and Kanchanpur) was made by Nepal tourism Board in 2010. The study has estimated 429,455 Indians visit Nepal through land route (NTB 2010: 28). However, it does not estimate the number of visitors to Lumbini. Therefore, an attempt was made to estimate total number of Indian pilgrims

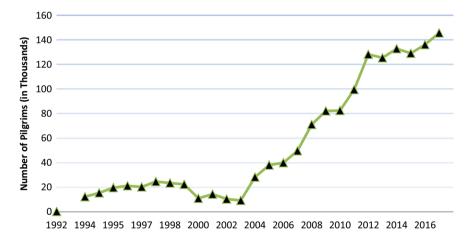


Fig. 7 Number of pilgrims arrivals to Lumbini (exclusive of Indian and Nepalese)

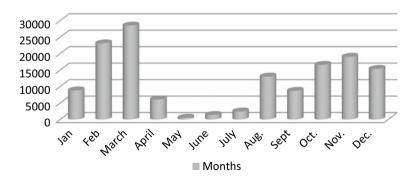


Fig. 8 Number of Pilgrims Arrival to Lumbini by Months, 2017 (exclusive of Indian and epalese)

visiting to Lumbini on the basis of vehicle that were registered or permitted in the month of Falgun 2067 (13 February to 14 March 2011) by Belhiya, police check point of Bhairahawa, to entry Nepal and travel to Lumbini. During this period, the police check post had recorded a total of 1154 vehicles representing 24% Jeep, 13% Car and 63% bus entered into Nepal. Out of the total entry to Nepal, 36.9% (426) vehicle (104 Jeep, 55 Car and 267 Bus) had their last destination to Lumbini.

As responded by the official in the police check post, Belhia, Bhairahawa, the average number of passengers on board per vehicle were eight in Jeep, five in Car and 25 in bus/mini bus. On this basis, recorded vehicles with their last destination to Lumbini, a total of 7782 Indian pilgrims arrived at Lumbini during that month. On average, this is 79% of the total international pilgrim arrivals in the months of February and March. On the basis of the average for February and March, a total of 10,325 Indian pilgrims might have visited Lumbini in the year 2011. Detailed investigation is needed to estimate the arrivals, night stays and the nature/type of Indian pilgrims to Lumbini.

Lumbini Development Trust has begun to record the arrivals of Indian and Nepalese pilgrims to Lumbini from 2015. Arrivals of Indian pilgrims accounted for 130,262 in 2015; 134,269 in 2016 and 155,444 during 2017. In both 2016 and 2017, the arrival of Indian pilgrims led to the arrival of total pilgrims from other countries. Similarly, the arrivals of Nepalese pilgrims to Lumbini were recorded at 488,852 in 2015, 1,015,158 in 2016 and 1,251,346 in 2017. These notable increases in the arrival of Indian and Nepalese pilgrims to Lumbini are reflective of the desire for the search of peace of mind and to pay honour to Buddha, "the apostle of peace".

6 Accommodation Capacity of Hotels

Okada observed Lumbini several times in 1969 and noted that most of the tourists amongst whom were diplomats from two South-East Asian countries, did not spend much more time than an hour at Lumbini, arriving in the afternoon by car from India, possibly taking lunch and departing hastily to reach suitable accommodation by the nightfall (Okada 1969). Visitors do not even buy lunch in Nepal, some countries have their own monastery and provide cheap or free accommodation and food for pilgrims in exchange of small donations.

During 2001, Acharya noted that Lumbini had 15 lodging hubs of both private and religious quarters. All together these hubs have the sum of 245 rooms with 730 beds. The average accommodation rate per person/night in a deluxe hotel ranges from Nrs. 3000 to 7000, but in the general hotel is 100 to 500/per night. The rate varies as per the nationality. Nepalese and Indians get accommodation relatively at cheaper rates as compared to others. In addition, free accommodations are available in the religious quarter. Such types of accommodation have no fixed charges, but donation boxes are open as optional contributions. It is notable that only 10% of the total visitors prefer night stay at Lumbini (Acharya 2001).

The field survey conducted in March 2012 counted 25 hotels and lodges established aiming to serve mainly the foreigners, accounting 506 rooms and 1166 beds (Table 3). Accommodation capacity (bed) of the hotels of Lumbini ranges from12 bed to 148. In terms of bed capacity, Buddha Maya (148) followed by Hotel Crystal (144) and Hotel Kasai (100) were in leading position (Table 3). Sakyas have lead positions, compared to other castes, in owning the hotels at Lumbini. Only two hotels are run by foreigner (Japanese) management.

Because of the short stay of the majority of the visitors, hotels, lodges and other activities related to tourism Lumbini have not benefited. Therefore, hotels and lodges have to wait for special occasions to have full boarding of their capacity. However, with the beginning of upgrading of the Gautam Buddha airport (domestic) into an international airport (2015) numbers of hotels and lodges are being constructed at the periphery of Lumbini Development Area.

During the field survey, a total of 43 gift shops were counted at Lumbini. Out of the total count, seven shops were managed by the local hotels themselves. The others were from the surrounding Village Development Committee, and use to commute daily about 5 kms. Of the total outsiders, the majority (73%) was from the Muslim community. Owner of the gift shop reported that beside "Thanka" paintings and some items of handicrafts (basket, key rings and model of wooden carvings of temple), the majority of gift items were brought from Kathmandu, India and Tibet, China.

7 Conclusion

Pilgrimage is a journey to the sacred place for religious purpose with faith and spiritual attachment to that place, where some spirit has dwelled or is still dwelling. Grand pilgrimage places are the special or rare places to which pilgrims have sentimental attachments created by religious and religio-sociocultural customs on which they believe. It is deeply rooted in all religions, though meaning, form, function, process and rituals varies.

Because of Buddha's advice to his disciples to visit four places, i.e. place of his birth, enlightenment, first sermon and Parinirvana, the four places (Lumbini, Kusinara, Sarnath and Bodhgaya) are the places of grand pilgrimage to Buddhists in particular and other peace lovers in general. Birthplace of Lord Buddha restoration of ancient Mayadevi temple with the nativity sculpture and marker stone at the birth site and the authentication provided by Ashokan pillar are the factors for the creation of sentimental attachment of pilgrims to Lumbini. As the publicity of Lumbini is becoming wider, the number of pilgrims visiting to pay homage to Buddha in Lumbini is increasing yearly. The proposal of Greater Lumbini Buddhist Circuit (GLBC) to link the country's Buddhist heritage sites from the mountains and hills to Lumbini has brought hope for development amongst Buddhists of Nepal and the pilgrims visiting Lumbini. However, pilgrimages to Lumbini as the beginning place followed by Bodhgaya, Sarnath and Kushinara/Kushinagar.

S.N	Name of hotel	Estd. year	Room	Bed capacity	Ownership	Remarks
1	Hotel Hokke	1990	27	54	Japanese	Att. Bath
2	Hotel Kasai	2010	30	60	Japanese	Att. Bath
3	Buddha Maya	2000	74	148	Nepali	Att. Bath
4	Hotel Crystal	1993	72	144	Nepali	Att. Bath
5	Hotel Ananda Inn	2011	22	49	Nepali	Common + Att.Bath
6	Bamboo Resort	2010	40	90	Nepali	Att. Bath
7	Buddha Bhumi	2011	15	30	Nepali	Att. Bath
8	Mayadevi	2011	20	32	Nepali	Att.Bath
9	Hotel Peace Land	2011	22	46	Nepali	Common + Att.Bath
10	Hotel Rainbow	2009	12	36	Nepali	Common + Att.Bath
11	Manakamana (Lo.)	NA	7	28	Nepali	Common + Att.Bath
12	Lumbini Village (Lo.)	NA	12	20	Nepali	Common + Att.Bath
13	Sun Flower Travel (Lo.)	NA	11	26	Nepali	Common + Att.Bath
14	Rahul Guest House (Lo.)	NA	6	36	Nepali	Common Bath
15	Royal Guest House (Lo.)	NA	8	20	Nepali	Common + Att.Bath
16	Ashoka Guest House (Lo.)	NA	8	17	Nepali	Common + Att.Bath
17	Shanti Guest House (Lo.)	NA	17	80	Nepali	Common + Att.Bath
18	Lumbini Guest House	NA	26	88	Nepali	Common + Att.Bath
19	Lotus Restaurant and Lodge	NA	5	16	Nepali	Common Bath
21	Siddhartha Guest House	NA	20	40	Nepali	Att. Bath
22	Gautam Buddha (Lo.)	NA	10	30	Nepali	Common + Att.Bath
23	Lumbini Buddha Garden	NA	20	24	Nepali	Att. Bath
24	Lumbini Peace (Lo.)	NA	10	40	Nepali	Common Bath
25	Lumbini Paradise (Lo.)	NA	12	12	Nepali	Attached

 Table 3
 Accommodation capacity of hotels of Lumbini, 2011

(continued)

S.N	Name of hotel	Estd. year	Room	Bed capacity	Ownership	Remarks
Total			506	1166	Jap = 2, Nep = 23	

Table 3 (continued)

Note L = Lodge; NA = information not available, Att. = attached, Bath = Bathroom*Source* Field survey (Official records of the Hotels, 2011, March)

Tilaurakot where Buddha grew to the age of 29 years as crown prince of Kapilvastu, and Devdaha the maternal home, the birth place to Mayadevi, have played environmental, ecological and societal role in germinating the seed Siddhartha and motivating him to leave the finest upbringing and the luxurious life of the palace, in search of the answers of three questions in his mind, which in turn chanced Siddhartha to Lord Buddha. Visiting these and associated other places with the beginning from Devdaha followed by Tilaurakot and then Lumbini may provide pilgrims a closer feeling of attachment or connection to Buddha.

Therefore, every attempt needs to be made for the publicity of these places and unite and gather the whole world for peace at Lumbini, along with good coordination and management planning. Establishment of an international airport, upgrade of the link road and focus in the developmental works in perspective of "Greater Lumbini" (Lumbini, Kapilvastu, Nawalparasi), develop Lumbini as peace city and positive support to the initiation taken by different nations and international organization should be a priority and be completed immediately by the Government of Nepal and the concerned organizations. Completion of upgrading of Gautam Buddha (domestic) airport into international is hoped to facilitate to connect and fulfil the desire of Buddhist pilgrims of the globe, visiting the places of grand pilgrimage. Similarly, links of Lumbini with Butwal, where fossil remains of Ramapithecus found at the bank of Tinau River in 1932 (non-human primate ancestor of human and link of Lumbini with Tibet China by direct rail way and formation of international steering committee for the overall development of "Greater Lumbini" may significantly help to gather the whole world organizing special events for peace at Lumbini. As a resource of tourism, Lumbini is common along with other three places (Bodh Gaya, Sarnath and Kushinagar) and both the country Nepal and India need to develop policy and plan to utilize these resources commonly and sustainably and join their hands in disseminating the message of peace to the whole world.

References

Acharya P (2001) Impact of tourism in economic and socio-cultural aspects of Lumbini VDC: an anthropological case study, Unpublished, Master Thesis Submitted to the Department of Sociology and Anthropology, Tribhuvan University, Kathmandu, Nepal

Bajracharya NM (1998) Buddhist in Nepal (465 BC to 1199 AD). Eastern Books, Delhi

Beal S (1996) Travels of Fah-hian & Sang-Yung, Buddhist pilgrimage from China to India 400– 518 AD, Asian Education, New Delhi Bhardwaj SM (1973) Hindu places of pilgrimage in India. University of California Press, Berkeley Bidari B (2004) Lumbini: a haven of sacred refugee, Hillside Press (P) Ltd, Kathmandu

- CBS—Central Bureau of Statistics (2012) National report of census 2011, National Planning Commission (NPC), Government of Nepal (GON). Nepal, Kathmandu
- Dubisch J (1995) In a different place, gender and politics of a Greek Island. Princeton University Press, Princeton
- Fuhrer A (1972) Antiquities of Buddha Sakya Muni's birth place in the Nepalese Terai. Indological Book House, Varanasi-Delhi
- GON—Government of Nepal (2017) Nepal tourism statistics 2017. Ministry of Culture, Tourism and Civil Aviation (MoCTCA), Kathmandu, Nepal
- Gurung H (1998) Developing Lumbini as pilgrimage centre of peace. The Himalayan Review, 29: pp 97–111. http://www.lumbinisanskritikmun.gov.np downloaded 08 July 2019
- Kelsang GG (2007) Introduction to Buddhism: an exploration of the Buddhist way of life. Thapra Publication, London, pp 8–9
- Malalasekera GP (1983) Dictionary of Pali proper names, Munsiram Manoharlal, New Delhi
- Mayer JF (1994) The miracles of Wutaishan, China: the ambiguity of place in Buddhism. Geogr J India 40:141–148
- Mishra TN (1986) The archaeological activities in Lumbini during 1984–85. Ancient Nepal No 139, Department of Archaeology, Kathmandu
- Mukharji BPC (1969) A report on a tour of exploration of the antiquities of Kapilvastu, Tarai of Nepal. Indological Book House, Delhi
- Mukherji PC, Smith, VA (1901) A report on a tour of exploration of the antiquities in the Tarai, Nepal, the region of Kapilvastu During Feb. & March 1899, Office of the Superintendent of Government Printing, Calcutta, India
- Noschis K (1994) Powerful places as occasions for an inner dialogue. Natl Geogr J India 40:21-30
- NTB-Nepal Tourism Board (2010) Survey of Indian visitors to Nepal by land 2009, NTB, Kathmandu
- Okada FE (1969) Lumbini garden area, Rupandehi District, Nepal: a socio-economic survey, His Majesty's. Government/U.N, Kathmandu
- Poudel PC (1996) Tourist resources and environmental appraisal of Pokhara Region, Nepal: a Geographical Analysis, Ph.D. Dissertation, Banaras Hindu University, India
- Poudel PC, Singh RPB (1994) Pilgrimage and tourism at Muktinath, Nepal: a study of sacrality and spatial structure. Geogr J India 40:249–268
- Preston JJ (1992) Spiritual magnetism: An organizing principle for the study of pilgrimage. In: Mornis A (ed) Sacred journeys: the anthropology of pilgrimage. Greenwood Press, London, pp 31–46
- Rai RD (nd) Ancient Kapilvastu: the Sakya territory and Sakya capital city, proper where Siddhartha road, Lumbini Development Trust (LDT), Lumbini
- Rapoport A (1982) Sacred places, sacred occasions and sacred environments. Archit Des 52(9/10):75-82
- Regmi DR (1983) Inscription of ancient Nepal. Abnibav Publications, Delhi
- Rijal BK (1979) Archaeological remains of Kapilvastu, Lumbini, Devdaha, educational enterprises. Pvt. Ltd., Kathmandu
- San KC (2001) Buddhist pilgrimage, Subdng Jaya Buddhist Association, Malaysia
- Singh RPB, Haigh MJ (2015) Hindu pilgrimage: the contemporary scene. In: Brunn SD (ed) The changing world religion map, CWRM: Sacred places, identities, practices and politics, vol II. Springer Science, New York, pp 783–802
- Sopher DE (1987) The message in Hindu Pilgrimage. In: Singtoh RL, Rana PBS (eds) Trends in the geography of pilgrimage: homage to David E Sopher. The National Geographical Society of India, Varanasi, pp 353–369
- Stoddard RH (1997) Defining and classifying pilgrimage. In: Stoddard RH, Morinis A (eds) Sacred spaces: the geography of pilgrimageBaton Rouse: Louisiana University, Department of Geography and Anthropology, vol 34. Geosciences and Man, pp 41–60

- Stoddard R (1994) Major pilgrimage places of world. In: Bhardwaj SM, Rinschede G, Sievers A (eds) Pilgrimage in the old and new world. Dietrich Reimer Verlag, Berlin, pp 17–36
- Swan JA (1994) Sacred places of the bay area. In: Singh RPB (ed) The spirit and power of place. National Geographical Society of India, Banaras, pp 123–130
- Swan JA (1992) Nature as teacher and healer. Villard-Random House, New York
- Walter EV (1988) Place ways: a theory of human environment. University of North Carolina Press, Chapel Hill



Padma C Poudel earned his Ph.D. from Bananas Hindu University (Varanasi, India) under the supervision of Professor Rana P. B. Singh. He was Professor of Geography at Tribhuvan University (Nepal). His research interests include environment, climate change, livelihood, tourism, agriculture, irrigation, urban development and management and sustainable development. He is widely published and the books authored by him are prescribed as text and reference books in the curriculum of undergraduate and post-graduate programmes in geography of Tribhuvan University.

He has held several prestigious academic and administrative positions in Tribhuvan University like the Head of Central Department of Geography (2012-2016), Senate Member (2015-2016), Member of Academic Council (since 2014); Service Commission Member of Pokhara University (2014-2017); Coordinator of Municipal Determination Committee of Nepal (2013); Chairman of Geography Subject Committee (2012-2016); Member: Faculty Board of Faculty of Humanities and Social Sciences (2009-2016); General Secretary of Nepal Geographical Society (2002-. 2017); Vice-President: Nepal Scientific Activities and Research Centre (Kathmandu), and editorial board member of Nepal Tourism and Development Review (Nepal Tourism Board, 2011), The Himalayan Review, since 2002), Corresponding Editor9al Board MemberThe National Geographical Journal of India (Varanasi). He also worked in Nepal Tourism Board, UNDP, ILO and with foreign Universities like Australian National University, Michigan State University, Aalborg University Denmark in the capacity of expert consultant.).

Pañcakrośī Yātrā of Varanasi: Symbolic Manifestation of the Spatial to the Spiritual



Vandana Sehgal

Abstract This chapter explains and explores the phenomenon and experience of sacred environments. The perception of a believer, who relates to the traditional philosophy, sees the built structures, absorbs and understands the symbolism that they represent and perceive the intangible through them. The Pañcakrośī Yātrā is a circumambulation around Kāśī kshetra which, according to ancient text, is based on a Mandala that alludes to the universe. Pilgrims perform this ritual, which is formed of a series of smaller rituals. The sheer act of the ritual overtakes the basic facts like the simplicity of the sacred shrines and arduous journey transporting him to a higher realm. An analysis on the basic activity pattern helps understand the whole cycle of the Yātrā and the cycle of the spatial environment transform to symbolic and eventually to a spiritual realm. With a basic background of the Hindu philosophy, this paper explores the linguistic aspect of finding meaning in sacred territories from macro to micro scale. The traditional architecture imbibes and reflects some of the philosophical concepts through their form, juxtaposition, embellishments, but their comprehension and perception are due to the archetype 'deep structures' that make a spatial realm spiritual through symbolism.

Keywords Cosmogram \cdot Circumambulation \cdot Sacred territory \cdot Semantics \cdot Traditional architecture

1 Introduction

Traditional Indian architecture is based on a metaphysical design philosophy that introduces the geometry of an abstract anthropomorphic form called purusa, which is also a symbol of self. This primordial man being the measure of everything is elaborated in one of the most powerful hymns of the ancient Indian text, the Rigveda, called the Purusasūkta. This is the critical term of reference in all Indian speculative thought. This cosmic man determines the relationship between the image of man and the earth and the sky to the interrelationships between the societal structures. It

V. Sehgal (🖂)

Faculty of Architecture, A.P.J. Abdul Kalam Technical University, Lucknow, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_17

becomes the main reference to explain and sustain micro and macro phenomena. The most important is its transference into art and architecture to communicate spatial and temporal relationships. This is represented by a mathematical figure called the mandala, which manifests the philosophy of the unity of the universe and man. The mandala, which is a 'cosmogram', presents a model of the macro and microcosm, which is basically the visualization of the universe in the form of pure geometrical figures. These are recommended in various forms for different structures to be built with respect to the function, site modalities, time and rituals according to the rules in the Śastras or the traditional texts. They act as 'deep structures' of tradition and enable us to perceive the ritualistic aspect of spaces, which connotes symbolic associations in the archetypes that set off an instant encoding and decoding. These associations and values thus evoked by them convert the hitherto mundane object into meaningful icons. The concept of Kaśi is based on one such Mandala. Singh in his book, Towards the Pilgrimage Archetype, quotes:

According to the (Kaśi Rahasya, p. 119, fn.) the circuit of Caurasikrośi is a disc symbolizing the sacred territory in the Treta period of Hindu mythology...Madhyameśvara is to be explained as the central pivot around which the cosmos takes its run. (pg. 26–28)

As all cosmograms, this one also has a numerical symbolic base. The area of this disc is defined by the circle, whose radius is the distance between Madhyameśvara, in the centre or the axis mundi and Dehlī Vināyaka at the edge, which is Pañcakroś. The route that encircles this disc is Caurasikroś and the haloed ground it contains is Kaśi kṣetra. This outer circle has, however, shrunk to be the Pañcakroś (Fig. 1) and is protected by a multitude of guardian deities (Eck 1983, p.146). The orientation of Kaśi is emphasized by the presence of eight directional deities and all other Gods reside inside it (Eck 1983). The believers walk around Kaśi kṣetra as a form of pilgrimage because it is synonymous with the universe through the symbolism of the mandala. This is the Pañcakrośī Yātrā.

This chapter tries to understand the whole idea and activity of the pilgrimage of the Pañcakrośī Yātrā of Varanasi and the symbolism which establishes it and perpetuates it. This is analyzed through the tool proposed by Rapoport in his book, 'The Meaning of Built Environment'. It explains the 'activity', the 'way of doing the activity' enumerating its various stages, the associated activities with the main activity and finally the meaning of the activity. Through this systematic analysis, there is an attempt to decode the symbolic associations and the spatial ramifications that happen because of this activity. The whole idea is seen through the linguistic theory that attempts to find meaning in symbolic structures and concepts. It sees how the 'signifiers' are used to 'signify' the concept at a larger and a smaller scale, which is further strengthened by the activity patterns or the rituals.



Fig. 1 The Kāśī Mandala: The three sacred layers. (Reproduced from Singh 2011)

2 Pañcakrośī Yātrā

Pañcakrośī Yātrā is a ritualistic journey undertaken on circumambulatory path, which is based on a symbolic diagram called the Mandala that lends it a special significance. This is considered spiritual because this Mandala encircles the holy land of Kashi. The simple activity of walking along it takes another meaning by this 'latent aspect', which is celebrated and emphasized by sequential rituals.

Pañcakrośī Yātrā is undertaken by devotees at other sacred sites like Ujjain and Ayodhya also. It is annually held in Ujjain for five days in Vaishakh month, which is mentioned in the Skand Purana. The Yatra lasts for five days and covers a distance of 122 km passing through the four sacred corners in Ujjain. On the first day of Panchkroshi Yatra in Ujjain, the Pañcakrośī parikrama starts from Nagchandreshwar temple at Mahakaleshwar after a holy bath in the Kshipra River. The first day journey ends at Pingleshwar temple and it is also the night halt. The second day the Yatra is up to Kayavaruneshwar which is the second night halt. On the third day, the Yatra is up to Vilvkeshwar with a pause at Nalwa. The fourth day of the Yatra is up to Durdhreshwar with a midday resting halt at Kaliadeh. Fifth day of Yatra journeys to Undasa and it ends at Kshipra Karktirth Ghat. The Ayodhya Pañcakrośī Yatra is around the Kaushal Pradesh of King Ramachandra. All these ancient pilgrimages where the basic activity are of walking barefoot on a prescribed route following the rituals along the way.

In his book, The Meaning of the Built Environment, Rapoport says that the activity can be analyzed through four components to understand the typology and meaning of built form/object (Rapoport 1990, p.13–15). They are elaborated in the further sub-segments of the chapter.

2.1 The Activity Proper

The activity, in this case, is the walking barefoot and travelling by boat (wherever, there is the river and the connection between ghāts is not present) on a scheduled path that covers a distance of 25 kroś or 88.5 kms, and this is called Pañcakrośī Yātrā (Fig. 2). It takes 5 days and 4 night halts to complete it and is done on scheduled dates prescribed by the Hindu calendar. Many people walk together in a procession, halting together at prescribed points and doing the rituals along the way. From the spatial point of view, there is a significance of the prescribed route, an emphasis on 108 shrines and sacred sites on the way and an importance of the terminating spaces (halts at the end of the day). There is a presence of a path, through the varied landscape of villages, fields and small towns that modify their residents' activity patterns and their environment experiences another dimension during the Yātrā time.

2.2 Specific Way of Doing It

The specific way of doing this Yātrā according to the traditional texts like the Kāśī Rahasya is steeped in ritual. Ritual is a socially agreed upon and relevant form of behaviour, which is performed with an extra degree of fervour, passion and intensity due to its function as a link between the scared and the profane, since it does address forces or entities that might be termed as supernatural or mystical. Ritual serves to revive and express a myth associated with an event, person or place (Kanekar 1992). So this Yātrā is not merely a circumambulatory walk around the Kaśi Mandala, but a walk, which has 108 sequential pauses in the form of a temples, kundas, wells, votive Śivalingas, stone edicts, sculpted form of a deity in isolation or together. These stops are not functional stops but are ritualistic to the core and form a sequential string of

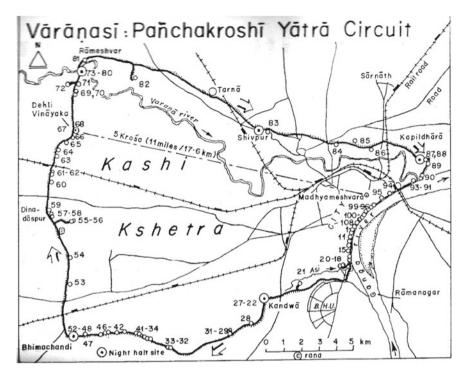


Fig. 2 Pañcakrośī Yātrā: The present route and the 108 shrines. (Reproduced from Singh 2011)

the main ritual of the Yātrā. They are important because the experience of the place and the very identity of the place is based on the particular ritual enacted there and are a testimony of the hierarchical values vested in sacred territory earmarked by earlier generations. The whole Yātrā can be structured into 3 stages (Lannoy 2011).

2.2.1 Pre-liminal or Preparatory Stage

At this stage, the pilgrim receives instructions and takes sankalp (vow), mentally and physically preparing himself for the holy journey. In this case, it is done at the shrine of Dhundhirāja and pilgrims takes a ritual bath at the Maṇikarṇikā Ghāt and a final oath under the Muktimandāpa under the guidance of a specialist Brahmin priest called the 'vyāsa'.

2.2.2 Liminal Stage

Liminal stage is the actual Yātrā, which starts from the Maņikarņikeśvara temple above the Maņikarņikā Ghāt, which has an ancient sunken Śivalinga, to the Sidhī Vināyaka (Ganeśa) along the steep street on the way back to the Ghāt to get a boat to reach the Lalita Ghāt, where obeisance is due to Ganga Keśava (Viśnu) and Lalitā Devi (protector Goddess). Many ghāts towards the Asi River have various shrines that house Śivalingas with varied themes and names like Someśvara, Sulatānkeśvara (Fig. 3), Vārāheśvara, Daśāśvamedheśvara, Kedāreśvara, Sangameśvara, etc. and many deities like Bandi Devī, Durgā Devī, etc. are approached through the river boats.

They are all prayed to in a specific way and particular offering of flowers or vermillion or pulses or grass or milk. The instructions regarding the ritual methodology are understood and followed without question. There are kundas like the Lolārka (Fig. 4), Durgā, Gaurī, etc. along the way, where a purification bath or anointing ritual is mandatory.

From the ghāts, the path progresses into the countryside beyond the Asi River. It winds through the green fields and small cluster of settlements. On the right side, which is the Kaśikṣetra has Śivalingas, protective Ganeśas (Vināyakas), Śiva's rulers (Kāla Bhairava and Danḍapānī), local deities, which are classified as Gaṇas, Nāgas

Fig. 3 Sulatānkeśvara on Prayāg Ghāt. Picture credit: Vandana Sehgal

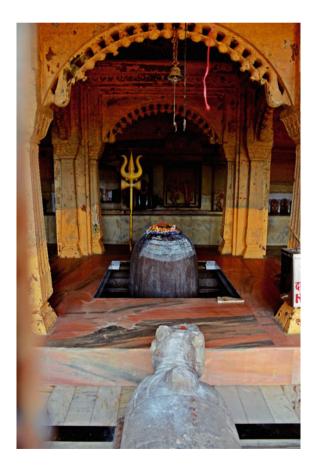




Fig. 4 Lolārakā Kuņda. Picture credit: Vandana Sehgal

and Yakśas. They are mostly housed in a basic canopied structure that 'almost' gives them the status of a temple. These 'sacred spaces' are 'places' that are intrinsically relevant and are not dependent on any architectural construct to glorify their value in the eyes of the pilgrim but at the same time, the outer structure are the magnets points to which the believer is attracted. The 'lingum' and the small crude 'shikhara' or a cupola, together revive the memory/myth of the past through their permanence and static nature (Fig. 5). The ritual of offering the lingum with water or milk and a small offering of flowers is the dynamic and temporary dimension that heightens the meaning of the place and the space and charges it with emotion, tradition and fervour (Fig. 6). These remarkable sacred sites, dotted along the path, are small in scale that lend an intimate spatial character to the pilgrimage.

Inadvertently, most of them are walled from one or two sides, which makes the light fall on the lingum or the deity partially, making the 'place' seem surreal (Fig. 7). Analyzing them in isolation, they are contextual as they lie on the periphery of the Kaśi Mandala and act as guardians to the sacred land and are a physical testimony to the cosmic concept. Most of them are not monumental and do not have a defined territory. Sometimes, however, the area is defined by their composition and placement. Few of them are clustered and are often united through ancient trees, wells, kundas, plinths, arcades, steps and living spaces.

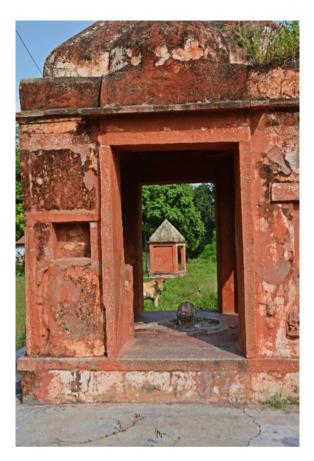


Fig. 5 Jñānadeśvara amidst the fields. Picture credit: Vandana Sehgal

2.2.3 Post-liminal Stage

This stage occurs almost every day in this Yātrā. The journey ends at a parāv ('place of rest/night halt') on all five days. These five points in the journey have been same for years.

Kardameśvara

Kardameśvara, which in Kandawā village, is the first halt, which is located around the Kardama Kunda and has a temple under a ficus tree, a well and series of smaller shrines on one side and a row of *dharamśālās* (a typology of rest houses for staying overnight) on the other side. The pilgrims reach the night halt by late evening and reach the dharamśālās to freshen up and rest. There are arrangements for food already done by rich businessmen, which is served. After the dinner, everybody gathers in the courtyard and they sing devotional songs till late in the night. Day starts early for **Fig. 6** The ritual of anointing the *lingum* with water, milk, soot and flowers. Picture credit: Vandana Sehgal



the pilgrims. They take the hily dip in the kund and take the water from there itself or the well to bathe the Śivalinga, pay their obescience to rest of the deities. After performing the rituals at the halt, the pilgrims move towards the next one.

Bhīmacandī

Bhīmacandī, the next day's halt is near the Gandharva Sāgar, which is another *kuṇḍa* and is abutted by Gandheśvara temple (Fig. 8). This area also has a series of *dharamśālās* for staying and cooking. The temple periphery has a number of shrines, the prime one being Bhīmacandī, which is the patron deity of the area (Figs. 8 and 9).

Fig. 7 Small scale shrine along the Pañcakrośī Yātrā. Picture credit: Vandana Sehgal



Rāmeśvara

Rāmeśvara is reached after crossing Dehlī Vināyaka (the guardian Ganeśa on the west). A row of dharamśālās leads to a well-structured temple complex, where there are many Śivaliṅgas attributed to Rama's brothers who established them, the prime being the Rameśvara, established by the Lord Rama himself. The temple precincts is on the ghāṭs that lead to the Varunā River.

Śivpur

Śivpur, the fourth night halt is attributed to the Pāndavas and their wife Draupadī. It is situated in a small town and is in the middle of a busy street. There is a small temple area which houses five Śivalingas with five Nandīs in one basin. Across the street are the well, the kuṇḍa and the dharamśālās.



Fig. 8 Gandharva Sāgar at Bhīmacandī. Picture credit: Vandana Sehgal

Kapiladhārā

The last night halt is at Kapiladhārā, which is a kuņḍa with a Śivālaya and many smaller shrines. On the last day, the journey by foot ends at the saṅgam (confluence) of the River Varunā with the Gaṅgā and is marked by the temple of Java Vināyaka. After crossing the Varunā by a pontoon bridge, obeisance is paid to Viśnu in the temple of Ādi Keśava. The journey from here is by boat on the Gangā. Shrines with the Śivaliṅgas on Prahlāda Ghāt, Trilocana Ghāt, Pancagangā Ghāt, Scindia Ghāt and back to Maṇikarṇikā Ghāt, where a free standing Śivaliṅga known as Maheśvara stands witness to the cycle of time and life as it submerges every year in the river during monsoons to surface back when the water recedes (Fig. 10). The journey ends with an obeisance to the Siddhī Vināyaka and the SaptavarṇaVināyaka on the Maṇikarṇikā Ghāt followed by a dip in the Maṇikarṇikā Kuṇḍa, which is said to have been carved by Viśnu with his disc. The last stop is the Muktimandapa, from where the sankalpa for the yātrā had been taken and the journey had started. The journey or pilgrimage completes with the blessings of Viśveśvara and Annapūrnā deities.

2.3 Additional/Adjacent/Associated Activity Become Part of It

The associated but as important aspects of the ritualistic function, although a bit profane is the economics and the logistics like the staying arrangements and food for

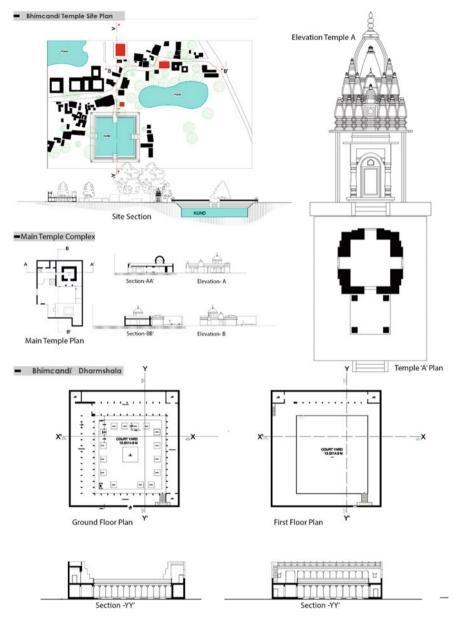


Fig. 9 Bhīmacandī Parāv: Plan, section, elevation. Picture credit: Vandana Sehgal



Fig. 10 Maheśvara on Manikarnikā Ghāt. Picture credit: Vandana Sehgal

the number of people doing the Yātrā. This is taken care by the typical dharamśālās that are built on the parāvs, which remain unoccupied for the rest of the year but are taken over by richer business families or a community who get them cleaned and also make arrangements for food for the pilgrims free of cost. The otherwise laid back settlement comes alive with temporary shops selling offerings or prasād, local delicacies and tea.

The plan of the dharam $s\bar{a}l\bar{a}$ is an introvert square or rectangular veranda around an open to sky courtyard with no internal walls/partitions. The court has a number of platforms that are used for cooking by the pilgrims. At times, there is a central big platform, where a learned saint sits and sermonizes or sings bhajans for the inmates. Some of them have a small water source and in limited cases, one may find a Tulasi plant. The stairs at the corners lead to the first floor liwan (pillared veranda) and open terrace. This typology is apt for housing larger number of people and segregating male and female pilgrims (Fig. 11).

Number of shrines that dot the holy path are positioned seemingly arbitrarily on the path that has become a metalled road now. The villagers look after the shrines that stand in their ambit and do the daily rituals the year round. Some of the temples have a defined precinct of a platform and a distinctly evolved sikhara form that houses the sculpted idol or the Śivalinga.

What one decipher from the arrangement is that there is a pattern with reference to the water systems, which might have been a base to locate the shrines practically. One can see a series of kundas and wells as an almost mandatory entity in the relatively more important shrines. Besides the functional aspect of water for basic



Fig. 11 Typical dharamśālāat at parāv. Picture credit: Vandana Sehgal

daily need, its spiritual connotation in Hindu mythology makes it more relevant. Most of these water bodies might be stagnating or contaminated today because of the unprecedented growth of urban centres around them. This may also be because fresh water that recharges them from the underground source is being hindered due to hap-hazard construction. The key to revitalize the area is to revive the water systems that were prevalent. It will not only help in restructuring and conservation of the sacred morphology but also is a practical solution for the economic sustenance of the area.

3 The Meaning of the Activity

The holistic schemata of the Pañcakrośī Yātrā and the basic typology of the sacred spaces relate to a hierarchy of meanings, ranging from the concrete function of the object or the structure to its value, which is symbolic in nature and connected to the culture and ancient tradition. There is an underlying theme, which has stemmed from philosophical and metaphysical abstract concepts that are consciously or unconsciously applied in design of built environment. The built, which is influenced by these abstract norms prescribed by ancient scriptures and varied mutated ideologies, gives it timelessness and consecutively it exists in many time frames at the same time.

This aspect can only be appreciated in the background of the philosophy that influences the way we perceive space. Traditionally, Indian philosophy is referred to as darśana and this term itself gives us some indication of an underlying aspect of the worldview and conceptual framework within which Indian philosophical thought operates. Darśana literally means 'view', in the sense of having a deep and thoughtful 'sight' of something. What is implicit in this is that what is 'viewed' and 'sighted' is the truth about the nature of reality, and this reflects the fact that understanding the nature of reality is the aim of philosophizing in Indian thought. Leading from this, it is widely accepted that all humans can gain 'actual sighting', which is not only restricted to intellectual knowledge but can be attained by means of mental disciplinary exercises that transcend normal awareness.

Karma and rebirth are other characteristics of Indian thought. Karma literally means 'action', and the way this term is used, it implies an action-consequence mechanics. The rationale of karma might lead to different actions in different traditions like a sacrificial or ritualistic action or a duty-oriented philosophy. This is associated with the idea of rebirth. Hindu tradition believes that one should do one's duty unquestioningly as the action-consequence mechanism acts as the fuel for the continuity of rebirth, and the specific conditions of each rebirth are linked to the specifics of earlier births (Hamilton 2001).

In the early Upanisads, which are the follow up texts of the Vedas, the principal Hindu philosophical texts of Indian philosophy, the universe is referred to by the neuter term *Brahmand*, which is an equivalent of an impersonal absolute that might also be called Oneness or Being. The expression 'ātmān is brahman' unequivocally identifies essential self with cosmos (Hamilton 2001). Subsequently, the most important thing to aspire is gaining insight into the nature of one's essential self and soul, called the ātmān. The Upaniśads teach that self and the cosmos are one, expressed as tat tvam asi (Chhandogya Upanishad) and gaining insight into that self, helps in mokśa (salvation), which releases one from continuing cycle of rebirth. This is an aspect of the Hindu philosophy where there is a cyclic birth-death-rebirth concept of time compared to the linear understanding of time in the west. From this cyclical perspective, time is a never-ending process, which is both repetitive and exhaustive. It is limited from one perspective, and limitless and eternal in another. From the spiritual perspective, time exists when we are in a state of duality but disappears when we enter into the state of unity with the Brahman. Each 'time cycle' has three components- shrishti (creation), stithi (continuation) and vilaya (dissolution). Each time cycle begins with creation, continues for certain duration of time and then dissolves into nothingness. After a brief respite, the cycle begins all over again.

The Pañcakrośī Yātrā is a parikramā or circumambulatory walk around the Kaśi Mandala. This actual cycle alludes to the cycle of life, cycle of seasons or to the timelessness or salvation (moksha) that can be achieved through this ritual that consists of hundreds of smaller rituals. These rituals have to occur in place and time physically at a tangible level in space. The perception of space through movement with ever changing points of view and change in spatial quality is the fundamental facet of space making in this parikramā. The clues for the movement are inherent in the space itself, which is revealed sequentially. Though the disposition of spaces is along the visual axis, the physical path of the movement shifts and varies, making the onlooker move around notional centres. Consequently, the whole length of the movement axis is never revealed at any moment but is broken up into spatial episodes of 108 sacred places. The sacred places are further broken into elements like thresholds, the plinth, pause elements, steps, sanctum sanctorum, etc. The most important aspect of this architecture is the ritualistic aspect of spaces, which connotes symbolic associations in the archetypes that set off an instant encoding and decoding. These associations and values thus evoked by them convert the hitherto mundane object into meaningful icons.

Amos Rapoport, in his monograph, the meaning of built environment, conceptualizes the understanding of meaning in our built environment as a dual phenomenon.

Perceptual—noticeable differences that in themselves have some significance and meaning by drawing attention to themselves through contrast and through the selection of which cues are made noticeable.

Associational—the decoding of the meaning of elements, their associations with use and behaviour, derived partly from the cultural rules associated with settings, that is, the context and the situation. (p. 197)

In view of the above, one can analyze the spatial episodes in the Yātrā from the macro to the micro level. The initial and the latter part of the parikramā cover many temples and kuṇḍas on the ghāts of Ganga. The ghāts are nothing but a series of steps to reach the temples from the river and to reach the river from above and perceptually, they invoke movement that has a kinaesthetic quality. They negotiate the level of water through their steep slope and its accessibility to the pilgrim. Their horizontality gives a platform to the temples, forts, palaces and other built structures to rise from. But when they are perceived by a pilgrim or a believer, they are the transition from land to water, from real to surreal. The ghāts are significant as the 'in-between' realm in associational terms. The association of water with architecture is considered symbiotic symbolically. It is associated with the Vedic myth of the Sun emerging from the dark inert primordial ocean. Therefore, the presence of water and the act of transcending from the land to water is considered the journey to the attain salvation or moksha (Fig. 12).

The parāvs are the important destinations as well as connectors in the whole schemata. In the first instance, they can be distinguished by the fact that all are near a water source like a well, kuṇḍa or a river. The presence of water is a purely functional aspect as a tired pilgrim needs to bathe and drink water at the end of the day. It separates the living area from the sacred precincts by providing an edge. At the same time, in the sacred context, water is considered the purifier and the same water is taken to bathe the lingum as the most important ritual.

The temple precincts are like the temenos or the sacred area demarcated by a change of level, where one or more garbha grha or the sanctum sanctorum stand. This area has a demarcated boundary but the moment a pilgrim steps on it, he revers it by touching it. The threshold of the garbha grha is raised and at times carved with relevant sculptures. It is an indicator of crossing into the hallowed sanctuary, where



Fig. 12 The ghāts as the 'in-between' realm. Picture credit: Vandana Sehgal

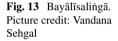
the pilgrim is one with himself. It is that transitory space that connects and separates the inside and outside but also has deeper metaphysical connotations.

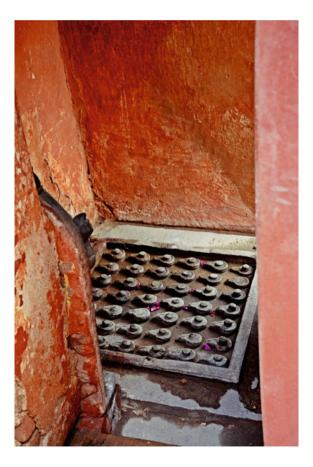
The garbha gr̄ha is a cubical volume that has the Śivalinga, which itself is an abstract symbolic reference of Śiva,Śakti and the essence of existence. Since man anthropocentric, his individual centre connects with the spatial centre. This way the form connects with the formless and the timelessness is experienced (Doshi 1991). Stella Kramrisch explains the phenomenon more expressively.

The form of the Garbhagriha is based on a square and this makes the use of the designation temple. The Romans called 'templum' a square fenced off for augury. Within such a preserve, the outside influences are excluded. The cubicle chamber of the garbha grha is replete with static order. It stands firm. This must be so in a sanctuary, a place for realization of the supreme principle, which is infinite and beyond all limits. The world that we live in is indefinite in extent and open on all sides to question and uncertainty; within limits, number and measure is Garbha grha. Like the city of Brāhman (Brāhamanpura), it rests within the four walls ('Maitrāyanī Upaniśad' VI. 28; 38). Their thickness shuts off the outer world and keeps secret the interior. Its sacredness is protected from the evil influence of external distractions and from the destructive agents of time and accidents. The greatest possible lastingness is secured for the scheduled place in which dwells the eternal present during Pūjā (Kramrisch 1976).

Column is not only a supporting or a free-standing element in architecture but represents the axis mundi or the connection between the earth and the sky. The Śikhara is not only a roof above the sanctum sanctorum but a connection of the earth with the sky. This is achieved through primarily, the compositional structure of the temples, which is made with the interrelation between the 'aedicule components' that are based on theological and cosmological hierarchies. The other component is the apparent movement that is achieved through projection, staggering, splitting, bursting of boundaries, progressive multiplication, expanding repetition, pictorial repetition and gyration of components of the form (Hardy 1998). Apart from this, the iconographic depiction of various deities and their accessories are prescribed in the Mayamata. For example, the kind of sculpture that will adorn the entrance, the circumambulatory and the core are predetermined along with their form, which has definite connotations that allude to the ultimate. The 'conceptual', the 'illusionistic' and 'symbolic' reinforce each other to manifest the 'limitless' in an Indian temple.

The lingum on the triangulated plinth or a yonī connotes the union of the Śiva and Śakti. The lingum (Fig. 13) is the symbol of the wholeness of the Hindu universe and the multiplicity of the created universe through the centrifugal movement of expansion into the infinite variety of names and forms is represented by Pravrittī or Śakti. The involution of the multiplicity back into 'One', the centripetal movement of condensation, is represented by Śiva (Eck 1983, p. 103–106).





4 Conclusion

The Pañcakrośī Yātrā is an organized sacred scape, where the built structures and patterns are spatially meaningful and evocative at one level but at the same time their sacred schemata and meanings are communicated through the symbolic expressions and interpretations, to which the users/pilgrims/believers connect. Applying the theory of semiotics, which is the study of signs, three components become relevant (Rapoport 1982, p. 35–43), which are.

Sign as a vehicle—Śivalinga/ground/water-ground interface/trees/colour/garbha għa/threshold/column/circumambulatory path act as a sign.

The designation—They refer to the Śiva and Śakti paradigm, the cosmic Mandala, real to surreal, holy like the idol, axis mundi, edge of universe, respectively.

The interpretant—The pilgrim/believer is transported to another realm the moment, he pours milk on the Śivalinga or walks down the steps of the Gangā or walks this pradakśinā barefoot believing in the fact each haloed step, he takes is towards eternity or mokśa. The spatial reality is submerged due to his heightened consciousness, which is because the signs, designated as symbols through tradition and text transform the experience to a surrealist realm.

There is a syntactical relationship of one sign to another, and structure of a sign system is created through spatial elements. This is evident in the placement of all sacred structures on the right side of the path, the organization of the parāv morphology, the garbha grhaand the placement of Sivalinga and other idols, the relation of water and temple and their whole juxtaposition with respect to the rituals to be enacted.

The Pañcakrośī Yātrā is a symbol or sign of encircling the whole universe but a small Pañcakrośī temple in the middle of Vārānasī is a sign of the Pañcakrośī Yātrā (Fig. 14). One circumambulation around the temple's garbhagīha, whose periphery walls have carved symbols of all the 108 stations of the sacred way are equivalent to the yātrā. It is like a three dimensional map, where one can view the entire sacred realm in a tangible manner (Gutschow 2005). There are multiple layers of the sign systems. The natural assumption for the believer to read, interpret and understand this syntax proves an established semantic connection between the spatial structures/architecture and their symbolic references or allusions.

The ritualistic concepts have pervaded all traditional architecture as a deep structure that governs archetypes and moulds all human thinking processes making the spatial realm rise above the normal to become symbolic and eventually spiritual.

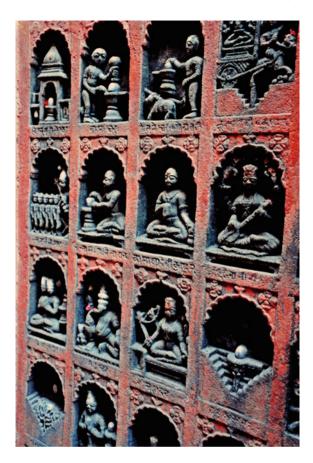


Fig. 14 Pañcakrośī temple circumambulation wall detail. Picture credit: Vandana Sehgal

References

Chhandogya Upanishad, 6.8 ff

- Doshi BV (1991) Brahmand: between the built and the Un-built, lecture at the the fifth international alvar aalto symposium, Jyvaskyla, Finland. Available at Vastu-Shilpa Foundation for Studies and Research in Environmental Design, Sangath, Ahmedabad
- Eck DL (1983) Banaras: city of light. Penguin Books, Delhi, India
- Gutschow N (2005) The Panchkroshi temple. In: Michell GS, Rana PB (ed) Banaras: the city revealed, vol 57(2). Marg Publication, Mumbai, India, p 93

Hamilton S (2001) Indian philosophy: a very short introduction. Oxford University Press, New York

- Hardy A (1998) 'Form, transformation and meaning in Indian temple architecture'. In: Tillotson GHR (ed) Paradigms of Indian architecture: space and time in representation and design. Curzon Books, Surrey
- Kanekar AK (1992) Celebration of place: processional rituals and urban form, M.Sc. Architecture Thesis, MIT
- Kramrisch S (1976) The Hindu temple. Motilal Banarsidass, Delhi
- Lannoy R (2001) Benaras: a world within a world- the microcosm of Kaśi yesterday and today. Indica Books, Varanasi, pp 87–96

Lannoy R (2011) Benaras: a world within a world- the microcosm of Kaśi yesterday and today. Indica Books, Varanasi, pp 87–96

Rapoport A (1982) The meaning of the built environment: a non-verbal communication approach. The University of Arizona Press, Tucson. pp 13–15

Rapoport A (1990) The meaning of the built environment: a non-verbal communication approach. The University of Arizona Press, Tucson. pp 13–15

Singh RPB (2011) Towards the pilgrimage archetype: the Pañcakrośī Yātrā of Banaras, Indica Books, Varanasi, pp 26–28



Vandana Sehgal is an architect, an artist and an academic.

As an academic, she has been teaching architecture since 26 years. She is currently the Principal and Dean of Faculty of Architecture and Planning, AKTU. Lucknow. Her area of research is architecture theory. Her thesis was entitled *Infinite in Architecture*. She writes regularly in journals on theoretical aspects of architecture, cultural theory, pedagogy and practical design issues.

As an artist, she has done solo shows 'Between Spaces' 'Ramayana' 'Lucknow- ek nazar', The Woman and Krishnaa and has participated in group shows with various artists in all over India. She has painted Illustrations for reputed authors and publishers. She has curated many exhibitions like 'White on White', 'Sanctums', etc.

As an architect, she is associated with design projects like Extension of State Archives, Lucknow, Documentation, Conservation and adaptive re-use of historical buildings like Chhatar Manzil and Lal Baradari Lucknow, documentation of many areas of Varanasi, and planning projects like Ru-urban scheme of GOI through institutional consultancy. She is also associated with some private projects like hotels, memorials, homes and interiors in an honorary consultant's capacity.

Cultural Tourism-Based Regional Development in Rajasthan, India



R. B. Singh and Ajay Kumar

Abstract Tourism at present is considered the largest and fastest growing industry. It is increasingly acquiring organized form and seen as multi-dimensional; hence, viewed as possessing huge potential in terms of future development. The available literature also highlights its role in the promotion of faster, sustainable and inclusive regional development focusing on poor sections and local areas. Though there is a rich typology of tourism today, cultural tourism is considered important across the world as it contributes to the gross tourism income substantially. The cultural potential of a region is therefore crucial in this regard which meaningfully connects the past with the present in a particular geographical setting containing both natural and cultural elements. The present chapter makes an attempt to analyse the status and potential of cultural tourism in the context of regional development of Rajasthan. This western state of India is gifted with a rich and long history and a vast pool of diverse cultural heritage as well as natural resources which could be used to develop the region by promoting it as a globally competitive tourist destination. The Rajasthani culture has two levels-folk and royal-manifested in different forms. The former offers traditional textiles, handicraft, paintings, music, dance, cuisines, and the latter has forts, magnificent palaces, beautiful gardens, etc. to the tourists.

Keywords Culture · Cultural tourism · Heritage · Regional development · Sustainable development · Folk culture

1 Introduction

Tourism is currently the world's largest industry and the fastest growing sector of the global economy. Tourism is usually viewed as being multi-dimensional, possessing physical, social, cultural, economic and political characteristics (Rathore 2012).

A. Kumar (⊠) Department of Geography, Bansur PG College, Bansur, Rajasthan 301402, India

© Springer Nature Singapore Pte Ltd. 2022

R. B. Singh (Deceased)

Department of Geography, Delhi School of Economics, University of Delhi, Delhi 110007, India

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_18

Tourism plays an important role in promoting faster, sustainable and more inclusive regional development. It has better prospects for promoting pro-poor and local area development than many other sectors. Among various types of tourism, cultural tourism is considered significant all over the world and contributes substantially to the total income from this sector. The cultural potential of a region can be best understood by looking into its symbols of the past that still are connected with the present. Every culture originates in a specific geographical setting and forms a close link with the natural environment that surrounds it. Rajasthan is endowed with a vast traditional and multi-layered history of diverse cultural heritage and natural resources with prospects to develop the region as a globally competitive tourism destination. The culture of Rajasthan is an expression of a typical dry environment, which is so beautifully mixed with its natural environment. The Region has ancient and mediaeval cultural sites of international, national, regional, and local significance which is contributing to achieve the concept of Incredible India.

The culture, in general, has two levels in society. The culture of Rajasthan has its deep imprints at both levels where the "culture of elite" is expressed through the formidable forts, magnificent palaces, beautiful gardens, etc. The culture at the level of masses has many things to offer to the tourists like textiles, handicraft, paintings, music, dance, cuisines, etc. The tourism-based activities generate income, achieve livelihood security and support regional and local development (Singh and Hietala 2014). The present paper attempts to analyse the status and potential of cultural tourism in regional development of Rajasthan.

2 Civilization, Culture and Cultural Regions of Rajasthan

2.1 Cultural Regions

Rajasthan is one of the 29 States of Indian Union. Area wise, it is the largest State in the Indian Union with an area of 3,42,000 sq km, population of the State is over 50 million. The State of Rajasthan was formed by the merger of 22 princely States into the Indian Republic on 30th March 1949. The State has different cultural regions known as Malani-Marwar (West), Mewar (South), Hadoti (Southeast), Matasya Pradesh and Daang (Eastern), Jangal Pradesh (North), Shekhawati (North Central), Merwara and Dhundhar (Central) (Fig. 1). These regions have unique living traditions and culture, styles of architecture and cuisine, schools of paintings and rich traditions of performing arts and a variety of rich handicrafts originated during ancient to modern civilizations. According to a local saying in these regions at every 24 miles, there is a change in local dialect (*kos kos par badle pani, teen kos par badle vani*) and socio-cultural variety is immense. Based on these cultural regions, a number of tourist circuits have developed and have potential to develop new tourist circuits (Fig. 2).

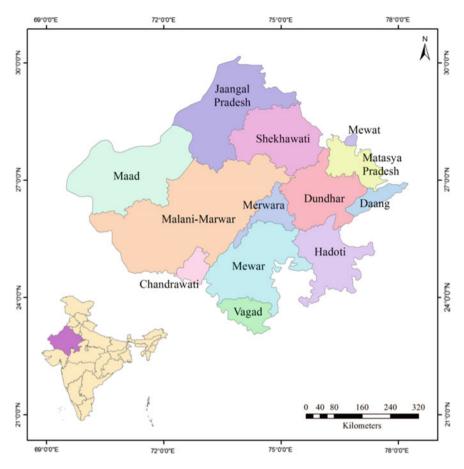


Fig. 1 Cultural regions of Rajasthan. Source Created by authors based on different texts

Scholars like Col. James Tod, Mannucci and Deboiney spread the tails of its glory throughout the world which flourished in the peculiar geographical conditions, has been the main tourist attraction (Mehar 2010).

2.2 Traditional Dresses, Foods and Dialects

The multi-coloured clothes of Rajasthan are very popular among the tourists. Many of the tourists can be seen wearing such clothes and during their return to home they carry such richly coloured clothes as gifts for their relatives (Fig. 3). The traditional costumes of the rulers of Rajasthan are also influenced by the Mughals. *Jama, Khirkiya Pag, Angarkhi, Churidar Payjama, Kamar-bund,* Dagger and sword formed parts of the royal costumes (Gahlot 1960). The women of Rajasthan are very fond of

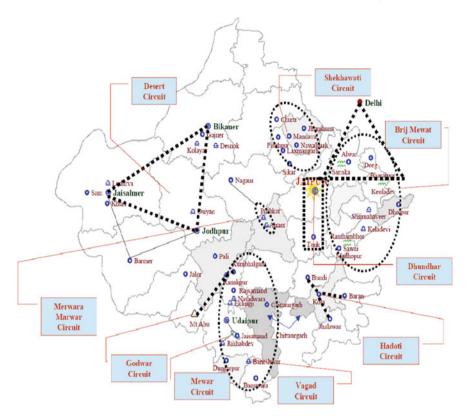


Fig. 2 Cultural region based tourist circuits of Rajasthan. *Source* MoTAC-Department of Tourism, Government of India (2013)

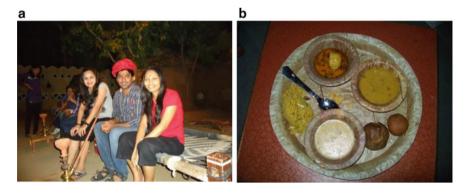


Fig. 3 a Tourist wearing traditional turbans and enjoying the traditional environment in Chowki Dhani; b Traditional *Dal-Bati-Churma* platter. Picture credit: Ajay Kumar

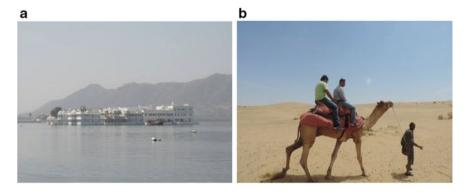


Fig. 4 a Water palace of Udaipur; b Traditional camel ride at Sam sand dunes of Jaisalmer. Picture credit: Ajay Kumar

the ornaments and not only foreign tourists, even for local tourists these ornaments are a source of great attraction.

From the literary point of view, Rajasthani dialects are very rich. Famous scholars and linguists like Tessitori from Italy and Gearson from France were so charmed by its richness that they came all the way from those distant lands and wandered amidst the sand dunes of Rajasthan to learn the dialect and explore its rich heritage (Kluyev 1981; Chaterjee 1948) (Fig. 4).

Wall paintings in various styles abound in Rajasthan. Tourists may come across fresco and mural paintings in their various forms, i.e. paintings on stone walls, plastered walls, Arayas forms of painting, colour paintings ornamented with small mirror pieces and folk paintings on mud-plastered walls in the countryside. Almost all types of pictures have their silent characteristics in the matter of craftsmanship, in the selection of subject and various colours (Mishra 1998; Gupta and Ojha 1986; Agarwal 1981).

2.3 Cultural Fairs and Festivals

Fairs and Festivals are the traditional features of the folk life of Rajasthan (Ahuja 1994). Markets are held on the occasions of festivals (Fig. 5). Many of the Fairs are religious in nature while there are many cattle Fairs held at Pushkar, Nagore, Luniawas, Tilwara and Parbatsar. On such occasions, many programmes are arranged for tourists. The main festivals are Holi, Shivratri, Sheetlastmi, Janmashtami, Raksha Bandhan, Ram Navmi, Ankha Teej, Nijle Ekadash, Chhoti-Teej, Bari-Teej, Ghurla, Gangore, Dussehra, Deepawali, etc. Of these, many are celebrated all over the country but in Rajasthan they are peculiarly celebrated with the richness of local colours which leaves a deep imprint on the tourists participating in these festivals (Gahlot 1960). Jaipur Literature Festival has emerged as a tourist activity attracting thousands of

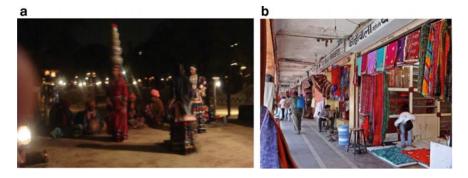


Fig. 5 a Traditional dances displayed at Chowki Dhani; b Bapu Bazar market in Jaipur showcasing traditional handicrafts. Picture credit: Ajay Kumar

literature lovers from all over the world. This Festival has evolved into a unique forum where towering personalities of our times engage with writers and readers in our collective quest for, and exploration of, new ideas. The enthusiasm of people on the occasion of the festivals like *Ghangor* and *Ghurla* is a treat to watch. Bevies of women singing folk songs connected with these festivals may be seen going through the streets and Bazaars.

2.4 Pilgrimage

The state of Rajasthan has almost all the religions of the world. People of different religious inclinations live peacefully and in harmony with one another. Some of India's most famous holy places are in Rajasthan and thousands of people visit Rajasthan pilgrimage destinations every year. The religious shrines of Rajasthan are also a treat for the eyes. They are fine examples of the architectural brilliance of the state of Rajasthan. There are numerous Hindu temples (Brahma Temple Pushkar, Eklingji Shiv Temple Udaipur, Karni Mata Temple Deshnok, Shrinathji Temple Nathdwara), Jain temples (Dilwara Jain Temple Mount Abu, Ranakpur Jain Temples, Rishabhdevji Temple Dhulev, Parshvanath Temple Nakoda) and Muslim dargahs (Dargah Sharif Ajmer) that are included in Rajasthan pilgrimage tour.

2.5 Traditional Herbal-Based Tourism

Since time immemorial, the value of herbs, food and medicine has been fully recognized and appreciated. Though Rajasthan is a desert state, it is surprisingly rich in herbal wealth, spices and vegetables. The whole Aravalli Mountain ranges are well stocked with shrubs and herbs of high medicinal value.



Fig. 6 a and b Traditional healers displaying significance and uses of medicinal herbs; c Traditional healers participating in a national seminar in New Delhi. Picture credit: Ajay Kumar

Some of the rare and indigenous species are Adusa (Adhatoda zeyionica), Aloy (Aloy Barbados) Aagandh (Withania somnifera), Kateri (Solanum indicum), Barhmi (Bacopa monnier), Gokharu (tribulus terristris), Thor (Euphorbia spp.), Carissa congesla), Lajwanti (Aeschynomene indica), Musli (Cenculings orchyoides), Shankh buti (Indigifera linifolia) Sarpagandha (Rauvolfia serpentina) (Katewa and Galav 2005). The state also contributes 40% of Isabgol of the country which is exported to the USA and the Gulf region (Sharma and Kumar 2013). The tourists in Rajasthan are very much interested in getting these herbs for their minor ailments. The traditional healers of Rajasthan are also promoting the use of these medicinal herbs through various seminars and exhibitions (Fig. 6).

3 Tourism in Rajasthan

Rajasthan is one of the most important tourist destinations in India and south-east Asia and its colourful culture form the most fascinating and unique basket of attractions for any tourist (Singh 2013) (Fig. 7). Tourism is the fastest growing industry in the state of Rajasthan. The industry is moving fast and generating more avenues for the people residing in the state. The government and the Department of Tourism are focusing a lot on the innovations and development of the tourism products. Tourism is a crucial sector for the economy of Rajasthan and can play an important role in bringing about socio-economic development of the state. Tourism was declared an industry in Rajasthan in the year 1989, and ever since Rajasthan has emerged as the top tourism state of India. Rajasthan Tourism is playing an important role in not only generating foreign exchange and also in creating opportunities like employment, good infrastructure, developing hotels, communication links, investment opportunities, etc. Some of the tourism products of Rajasthan have become internationally famous and popular among the tourists. These include palace-on-wheels, heritage hotels, camel safaris, Pushkar fair, desert festivals and wildlife sanctuaries like Bharatpur, national parks like Ranthambhore Tiger Reserve, Desert National Park, etc. (Sharma 2013).

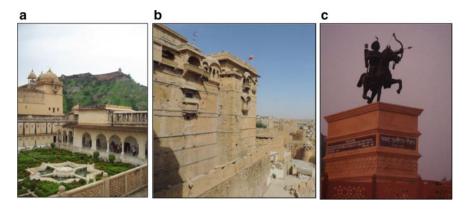


Fig. 7 a Amber fort Deewan-e-khas and Jaigarh fort in background; b Jaisalmer fort; c Statue of Maharaja Prithvi Raj Chauhan at Taragarh fort of Ajmer. Picture credit: Ajay Kumar

The total number of tourists in the state increased from 83,65,500 in 2001 to 346,02,065 in 2014, an increase of more than 300%. Arrival of both domestic and international tourists has increased by 326% and 150%, respectively, (Fig. 8).

The main season of tourist arrival in the state is during the autumn and spring season. The month of September in 2014 recorded the highest arrival of tourists in the state (Government of Rajasthan 2014) followed by the month of April. Summer is lean period for tourism in Rajasthan due to high temperatures (Fig. 9).

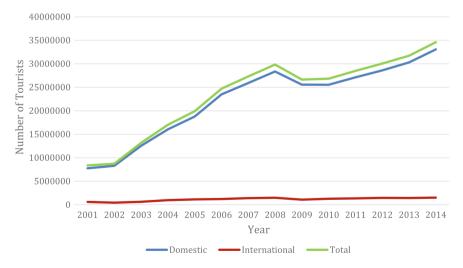


Fig. 8 Growth of tourists (domestic and international) during 2001–2014. *Source* Prepared by authors based on data from the Annual Progress Report, 2014–15, Government of Rajasthan

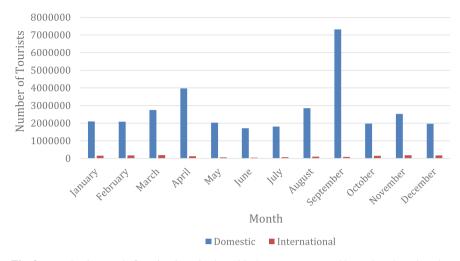


Fig. 9 Month wise trend of tourists in Rajasthan (2014). *Source* Prepared by authors based on data from the Annual Progress Report, 2014–15, Government of Rajasthan

Majority of international tourist in Rajasthan arrive from Europe and especially from France (15%), UK (8%), Germany (7%) and Italy (6%). The tourist from USA contributes 8% of total international tourist arrival in Rajasthan (Fig. 10).

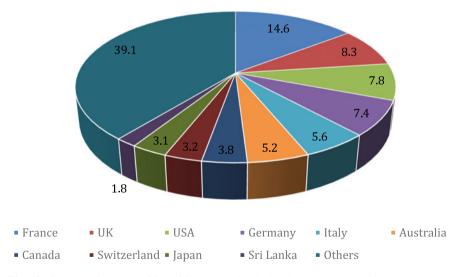


Fig. 10 Country wise composition of foreign tourists in 2014. *Source* Prepared by authors based on data from the Annual Progress Report, 2014–15, Government of Rajasthan

4 Tourism Induced Regional Development in Rajasthan

Culture-based tourism activities in Rajasthan have helped in generating employment in dry areas that have minimal resources for livelihood, and it generates economic activities for all segments of society of Rajasthan. Tourism has a multiplier effect and has linkages with many other industries. The spending of travellers flows through the entire economy. The impact of tourism also encompasses employment generation both direct and indirect jobs. Tourism provides an apt channel to reduce the voluminous unemployment that challenges the economy. Tourism stimulates enormous investments in new infrastructure, most of which helps to improve the living conditions of the local residents as well as tourists. Such investment facilitates the development of backward areas. The activities associated with tourism lead to a balanced development of backward areas and weaker sections and creates an environment of equity in the long run (Fig. 11). The benefits of tourism can be summarized as follows (i) Improvement in education and health of the local community; (ii) Provide higher standard of living for the local people; (iii) Improves cultural understanding through fairs and festivals; (iv) Exchange of cultural beneficial for both host and guest; (v) Interaction with foreign tourist can bring cultural change faster; (vi) Employment in tourism industry can reduce migration of rural people to urban areas (Singh 2014).

Every activity has some negative impact also, but such impacts of tourism in Rajasthan are limited and can be summarized as follows (i) Modernization can

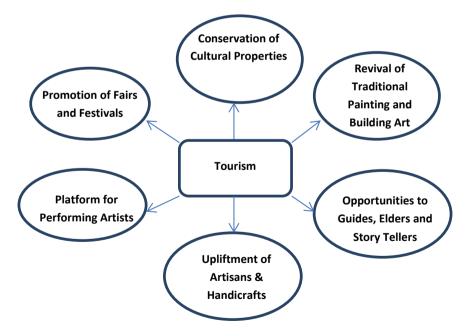


Fig. 11 Impact of tourism on culture of Rajasthan. Source Summarized by Authors

affect traditional values and cultural practices; (ii) Traditional products will be replace by modern products; (iii) Rural people may shift from traditional business to tourism activities followed by decline in participation in rural traditional and cultural practices.

5 Tourism Policy of Rajasthan

The state government has already realized the potential of culture-based tourism for the economic development in the state and has adopted vital measures to promote cultural tourism in the state by adopting schemes like "*Padharo Mhare Desh*" meaning Rajasthan invites you. Rajasthan has also been called the "Designer state" because of its culture, cuisine, customs and art forms (Dharmwani 2013). The States New Tourism Policy was released on 27 September 2001 and the mission statement of the Tourism Policy is to evolve a pragmatic policy designed to ensure optimum utilization of rich cultural resources of the state to generate employment, especially in rural areas, to develop a ready market for the rich and varied handicrafts along with preservation of varied bio-diversity, natural, historical, cultural and heritage of the state by scientific methods and to accelerate contribution of tourism industry in socio–economic development of the state by making tourism a truly People's Industry in Rajasthan (Government of Rajasthan 2001).

The New Tourism Unit Policy, 2015 primarily addresses issues relating to time bound conversion of land for tourism units including new hotels and heritage hotels, grant of Patta to Heritage hotels, allotment of land for tourism units, applicability of Rajasthan Investment Promotion Scheme (RIPS) for tourism units and smooth and speedy implementation of the provisions of related departments like Revenue, Urban Development and Housing & Local Self Government, Panchayati Raj, etc. It is expected that this policy will strengthen the existing infrastructure, foster infrastructure development, income and employment generation and increase the much-needed availability of hotel rooms. The most recent initiative by the Government of India for extending the e-tourist visa facility to 45 countries will help in attracting international tourists to India and to Rajasthan.

5.1 Strategy for Development of Cultural Tourism

The heritage and cultural tourist sites in Rajasthan are instruments to direct land use policy towards more decentralized patterns of development. They should be clearly identified on the land use plan to prevent encroachment and inappropriate development and should be integrated with the potentials for cultural tourism (Singh 2005). Tourism circuits covering tourism, leisure, cultural and heritage sites could be created with a one to three days trip giving priority in development of transportation and other infrastructure. Private sector plays a crucial role in development of tourism

and is instrumental in maintenance of tourist destinations in the region. The over consumption of resources by tourists and tourism infrastructure is incompatible with sustainable development of tourism in the state. There is a risk of tourist demand for resources (land, water, energy) competing with the needs of the local population, thereby increasing social inequality and injustice.

The issue of carrying capacity has often been addressed by developing alternate tourist locations, thereby redistributing the tourist activity. The nature of tourism in Rajasthan is more cultural, which makes it difficult to address the issue of carrying capacity purely by creating or promoting new locations. Consumer behaviour in tourism is both a product and the cause for change in policies by the government and industry. Therefore, a comprehensive approach is required to solve the problems associated with market-driven tourism. Some of the suggestions that would influence tourist consumer behaviour are as provided below:

- (a) Mass media can be effectively used to influence travel decisions and consumer behaviour in the destinations to reduce pressure at major tourist sites.
- (b) There is a lack of reliable and appropriate research data on the determinants of tourist demand, motivation, and behaviour. Statistics should be maintained and, if required, periodic research undertaken to assess emerging tourism trends and identify sustainable alternatives.
- (c) The key to develop effective partnerships in the tourism industry in Rajasthan is to remove the imbalance in power between the different stakeholders. The tour operator and guides wield a considerable influence on the tourist flow and activity in the state. Tour operators should be educated on the importance of carrying capacity.

The most effective instruments and remedial measures to be undertaken by the State of Rajasthan are:

- (a) Rules and regulations that monitor the growth of tourism infrastructure at a particular place or an area so that tourism pressure can be managed sustainably.
- (b) Market-based instruments such as taxes (e.g. green tax) to influence market prices of tourism products and services.
- (c) Offering combo tourist packages to make travel and stay hustle free.
- (d) A self-imposed code of conduct across the tourism industry participants like hotels, tour operators, guides, taxi operators, etc.
- (e) Good local transport facilities to ensure tourist movement away from the hubs.
- (f) Improving the functionality of tourist resource centres at district level.
- (g) Landscape suitability analysis using Remote Sensing and GIS for developing tourist infrastructure facilities.
- (h) The culture of Rajasthan can also be promoted through encouraging rural tourism and homestays showcasing the culture of masses.
- (i) Increasing the accommodation capacity of hotels and offering a variety of accommodation types to the tourists.
- (j) Revitalizing the traditional *havelis* through transforming them to hotels and sightseeing sites in Churu, Amber, etc.

6 Conclusion

Cultural tourism in Rajasthan has emerged as an important instrument for sustainable human development including poverty alleviation, employment generation, environmental regeneration and development of remote areas and advancement of women and other disadvantaged groups in the state apart from promoting social integration and international understanding. It can help the inflow of resources from urban to the rural economy. It can prevent migration of people from rural to urban areas. Both short-term and long-term planning, implementing, and monitoring are vital in avoiding damage to rural areas. Local involvement, sound legislation, sustainable marketing, and environmental management are crucial for development of cultural tourism. The government should promote cultural tourism to ensure sustainable economic development and positive socio-cultural changes. Thus, as seen above there is a strong need to have a holistic approach to tourism development, which is sustainable, participatory, inclusive, and peaceful leading to overall development of the state.

References

- Agarwal RA (1981) History art and architecture of Jaisalmer. Neeraj Publication House, pp 71–78 Ahuja DR (1994) Folklore of Rajasthan. National Book Trust, p 76
- Chaterjee SK (1948) Rajasthani Bhasa. Rajasthan Cidhyapeeth, Udaipur, p 5

Dharmwani LT (2013) Tourism in Rajasthan: challenges and opportunities. Indian J Appl Res 3(11) Gahlot JS (1960) Rajasthan Ka Samajik Jeevan. Digital Library of India, p 79

Government of India (2013) Final report on 20 year perspective plan for sustainable tourism in Rajasthan. Department of Tourism, Ministry of Tourism, Art and Culture, New Delhi

Government of Rajasthan (2001) Tourism policy of Rajasthan, Ministry of Tourism, Jaipur

Government of Rajasthan (2014) Pragati Prativedan 2013-14, Department of Tourism, Jaipur

- Gupta R, Ojha J (1986) Rajasthan ka Rajmetik avm Sanskritik Itihaas, Hindi Granth Akadmi, Jaipur, p 80
- Katewa SS, Galav PK (2005) Traditional herbal medicines from Shekhawati region of Rajasthan. Indian J Tradit Knowl 4(3):237–245
- Kluyev B (1981) India, national and language problem. Sterling Publication, India
- Mehar I (2010) The rich cultural heritage of western Rajasthan—a major tourist attraction. IJMT 19(2)
- Mishra RL (1998) Shekhawati ka itihaas. Kutir Prakashan, Jhunjhunu, p 309
- Rathore N (2012) Rural tourism impact, challenges and opportunities. Zenith Int J Bus Econ Manag Res 1(2)
- Sharma M, Kumar A (2013) Traditional medicinal plants of Rajasthan used in tribal medicine: a review. Int J Life Sci Pharm Res 2(3)
- Sharma A (2013) A SWOT analysis of Rajasthan tourism. Spectr J Multi Res 2(6)
- Singh RB (2005) Geographical mosaics of culture, environment and human development. Ann NAGI 25(2):20–32
- Singh RB, Hietala R (eds) (2014) Livelihood security in Northwestern Himalaya. Springer, Tokyo Singh R (2013) Domestic tourism in Rajasthan-SWOT analysis. Pac Bus Rev Int 5(11)
- Singh RB (ed) (2014) Urban development challenges, risk and resilience in Asian mega citiessustainable urban future of emerging Asian mega region. Springer, Tokyo



R. B. Singh (Ph.D.) is a retired Professor and Head of the Department of Geography, Delhi School of Economics, University of Delhi, Delhi. He is the first Indian and the second Asian elected as Secretary General and Treasurer of the International Geographical Union (IGU). Presently, he is Chair: Research Council, CSIR-CFTRI, Government of India; Member of International Science Council (ISC) Scientific Committee, elected as President-Earth System Science Section of the ISCA during 2019-20. He has visited more than 40 countries. He published 15 books, 35 edited volumes and more than 235 research papers in Climate Dynamics, Current Science, Singapore Journal of Tropical Geography, Energies, Theoretical and Applied Climatology, Environmental Science and Policy, Physical Geography, Advances in Meteorology, Physics and Chemistry of the Earth, Agriculture, Ecosystem and Environment, Hydrological Processes, Mountain Research and Development, Journal of Mountain Science, Climate, Advances in Earth Science, Advances in Limnology, Asian Geographer, Environmental Economics, Tourism Recreation Research). He has successfully supervised 35 Ph.D. and 81 M. Phil. students. He is the recipient of research and study grants in Social and Human Sciences from UNESCO/ISSC (Paris); and, several other travel fellowships/ support from UNEP, UNITAR, UNISDR, IAP, UNU, UNCRD, WCRP, IAHS, IGU, NASDA, INSA, UGC, SICI, MAIRS, etc. for participating and presenting papers, chairing session and discussing research projects. He was also awarded prestigious Japan Society for Promotion of Science (JSPS) Research Fellowship at Hiroshima in 2013. NITI Aayog, Government of India invited him as Member of the prestigious committee for preparing Vision India-2035.



Ajay Kumar is an Associate Professor in the Department of Geography, Bansur P.G. College, RRBM University, Alwar, Rajasthan (India). He received his Master degree and Ph.D. in Vulnerability of Arid Regions from University of Delhi; B.Sc. from University of Rajasthan. Previously, he was an Assistant Professor in the Department of Geography, SBS College and SSN College, University of Delhi. Ajay has authored four books and more than 30 research papers in national and international journals. He researches environmental problems and policies, land use land cover change, climate change, disaster management, vulnerabilities, arid environment. His ongoing research focuses on fringe management of protected forest areas of Rajasthan, water resource management in semi-arid regions and vulnerability to climate change in arid regions. He was Member, Young Side Event, UNISDR S&T Conference, Geneva (2015); Guest Editor, Physics and Chemistry of Earth-Journal-Elsevier (2014); Guest Editor, Regional Environmental Change-Journal-Springer (2015).

Baul-Sufi Interface and Cultural Tourism: A Study in Northern Rarh of West Bengal, India



Premangshu Chakrabarty and Tushar Mandal

Abstract Culturally, the Rarh region of West Bengal is perceived as the land of Sahajiya syncretistic tradition. Bauls, the wandering mendicants, originally emerged from Buddhist Sahajiya background, have been converted as Sahajiya Vaishnavas, while Sufism came with the spread of Islam since the thirteenth century AD through the Fakirs and Darbeses with similar views as expressed in earlier Sahajiya philosophies. The Dargas of Pirs with their sacred tombs and the Akhras of Bauls for their esoteric songs particularly in the northern part of Rarh are considered as valuable tourism resources. Tourism is the fastest-growing industry of today, and cultural or heritage tourism is a very important segment of it. The Baul-Sufi interface, thus, becomes a subject matter in the tourism geography of Rarh Bengal. This paper is an attempt to evaluate the Sahajiya-Sufi sacredscape of northern Rarh with reference to its utilization as a tourism resource.

Keywords Syncretistic • Wandering mendicants • Esoteric songs • Heritage • Sacredscape

1 Introduction

Pilgrimage is the father of religious tourism which persists in every religious community. The Rarh region of West Bengal in eastern India (Fig. 1) accommodates various religions, castes and subcastes. There are many places worthy of pilgrimage in Rarh Bengal where people visit in search of divine blessings. Believing the manifestations of the signs of supreme power in such shrines, they perform traditional rituals offering sacrifices. Being the worshipper of mother Goddess as Shakti, i.e. the manifestation of energy, the region was once familiar for human sacrifice under Tantric influence which is now reduced to animal sacrifices with the advancement of time, and even

P. Chakrabarty (🖂)

T. Mandal

© Springer Nature Singapore Pte Ltd. 2022

Department of Geography, Visva-Bharati University, Santiniketan, West Bengal 731 235, India

Department of Geography, Saltora Netaji Centenary College, Bankura, West Bengal 722 158, India

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_19

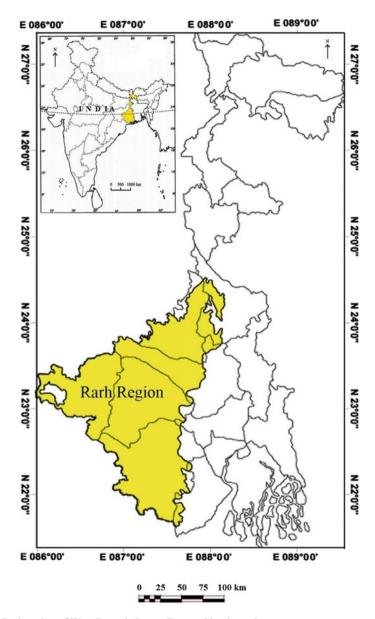


Fig. 1 Rarh region of West Bengal. Source Prepared by the authors

sacrifices of non-living objects have been introduced under Vaishnavite influences in the region being inspired by the ideology of non-violence. This ancient cultural region of Bengal called Rarh is divided by the River Ajay into two parts—*Bajjabhumi* (the northern Rarh) and *Subbabhumi* (the southern Rarh). An extraordinary cultural character of the northern Rarh zone (*Bajjabhumi* literally means a land of infertile rocky soil) is the motivation of studying its touristscape with reference to Baul-Sufi linkage, considering it to be a vital resource in planning for heritage tourism in the area. It is noteworthy to mention in Indian context that there are a number of studies on tangible cultural tourism resources, particularly on monuments as heritage sites, but studies on intangible cultural tourism resources like music/performing art are very few. Such studies made by cultural anthropologists and folklorists in this field are far from addressing them as tourism resources also. Here lies the research gap attempted to be addressed with the following objectives:

- i. To highlight the background of syncretistic tradition of the Bauls and Sufis that has increasingly been recognized as resources for cultural tourism.
- ii. To evaluate the regional affinities of them in terms of distinctive touristscape.
- iii. To assess the evolving status of authenticity due to increasing exposure in the international tourism market.

The methodology involved is interviewing, questionnaire survey and participant observation for studying the tourist behaviour and application of GIS in mapping the touristscape of this region. The methodologies of studying historical geography are also adopted in order to reveal the Baul-Sufi linkage evolved with time. Tourism geography as an emerging branch of anthropogeography provides the scope of agglomerating such diverse methodologies under a single umbrella.

With their applications in different subsections followed by, the research gap in evaluating Baul-Sufi interface in terms of cultural tourism is addressed with. In this connection, the social and cultural background is elucidated first followed by a brief review of historical aspects concerned. As authenticity issues are vital for cultural tourism, a special emphasis is given to analyse the functional aspects of syncretistic practices with reference to time and place in Sect. 4. To satisfy the second objective of the study, a circuit planning is attempted with justifications on assembling the syncretistic hubs in spatial context in Sect. 5 (for Bauls) and Sect. 6 (for Sufis). Finally, the scope in promoting Baul-Sufi touristscape has been dealt in Sect. 7 with reference to authenticity status followed by the concluding remarks on its functionalism highlighting the recent trends.

2 The Social and Cultural Background

The earliest reference on Rarh region is found in the Jain scripture of the 'Acharanga Sutra' as 'Ladha' described as a 'pathless country' inhabited by hostile people who set off their dogs after Mahavira, the twenty-fourth *Tirthankara* (Prophet) of Jain religion who dared to enter in the region in sixth century BC (Chattopadhyaya 2002). This

zone was inhabited by Proto-Australoid¹ group of people, speaking Austric group of language.² 'Ladha' is actually an Austric word from which the word 'Radha' was probably originated to mean its subaltern people.³ With Aryan influence, there was an increasing tendency of Sanskritization. In Sanskrit, the word 'Rarh' means rough, and it was imposed on 'Ladha' (meant barbarous) to describe both the character of the people and the uneven land of this geographical region. Thus, 'Ladha' becomes 'Rarh' through the word 'Radh' of Austric origin.

The Rarh as a seat of traditional culture is a geo-historic region (Singh 2008). The influence of Jain, Buddhist, Hindu and Sufi traditions is prominent, and the geographical area is dotted with a maximum number of pilgrim centres as compared with other regions of West Bengal. These are mostly the folk shrines, while within the forests, the animistic worship of tribal groups persists. It is noteworthy that the name of the district 'Birbhum' covering the maximum portion of northern Rarh comes from Mundari word 'Bir' meaning forest (Mahato 1984).

The ancestors of Proto-Australoids, such as Santals and Munda, are the earliest inhabitants of this region. The migration of Dravidian people from South India before the arrival of Aryans brought significant demographic changes in Rarh Bengal. The presence of Mahali (Dravidian caste of labourers) or the Kora (Dravidian caste of earth workers and cultivators) is among the examples of it. With the patronization of local rulers, a number of working class settlements have developed resulting from in-migration. In Rajnagar areas of Birbhum, for example Kunwis (the weaver group of subaltern community) are settled who gradually became agricultural labourers. Though they are found engaged in Shakti worship, their village deity is Dharmaraj who is said to be of Buddhist origin. This represents northern Rarh as a melting pot of religious traditions with time from which the present cultural landscape has emerged.

3 The Historical Aspects

The Acharanga Sutra, a Jain literature, first mentioned two physical divisions of Rarh and the River Ajay, a tributary of River Ganga has been accepted as the boundary between northern and southern Rarh (Biswas 1985). While writing the history of Bengali people, the term "Purabhumi" has been used to describe the land characterized by its red-coloured soils (Roy 1952). Sukumar Sen, an eminent scholar of Bengal, also used the word 'Rarh' as representative of both the character of the land and its people (Chattopadhyay 2007). The northern Rarh was the territory

¹ Proto-Australoid: ancestor of the ancient hunter-gatherer people with dark skin colour, black, and wavy or curly black hair, long heads and broad, flat noses.

² Austric Group of Language: Austric is a group of languages primarily spoken in southeast Asia, the Pacific and the eastern Indian subcontinent.

³ Subaltern People: a term first proposed by Antonio Gramsci (1891–1937) refers to those groups of people in society who are subject to the hegemony of the ruling classes.

ruled by King Sasanka (606 AD) who made an invasion with Bengali Army to Kannauj in Uttar Pradesh through Kashi; eventually, this is considered by historians as the first manifestation of the power of Bengal in the political geography of Indian subcontinent.

Sahajiya Buddhism had developed its strong base in the way of life of the common people during the Pala rule from eighth century to eleventh century, considered as the golden age in the evolution of culture of this region. The Palas ruled towards the end of the eleventh century until the crown was captured by the Senadynasty. Like Pala, they also encouraged the musical tradition of Bengal. The lyrical 'Geetagovinda' with outstanding compositions was written during this period by the Vaishnava scholar Joydeb who later served as the court poet of Lakshmana Sena (1179–1206 AD), the last Hindu King of Bengal.

Being Brahmins of Karnataka origin, the Sena rulers, however, made organized attempt to erode the widespread Sahajiya social base of Bengal by imposing the caste hierarchy with the help of codification of 'Brahmavaivarta Puranas' and 'Brihatdharma Purana' (Dasgupta 2004). There was about four hundred years regime of humanistic philosophy of Buddhism (eighth to eleventh Century AD) that developed resistance regarding acceptance of social stratification under Hindu caste system under the new rule. Revolt against the authority of Brahmins appeared in the community in the form of defying and transgressing the social rules. In the Muslim rule since thirteenth century AD, many lower-caste people were attracted by the flavour of the humanist Sahajiya tradition in the teaching of Sufis and opted Islam. A strong base of Islam in northern Rarh was particularly due to the Sufistic influence, while Vaishnava influence was able to retain the rest of the subalterns within the Hindu-oriented cultural universe.

In 1204 AD, it was Bakhtiyar Khilji who introduced Turk-Afghan rule in Bengal. The challenge to Hindu society along with increase of conversion cases from Hindu to Muslim was countered by sixteenth century Bhakti movement under the leadership of Sri Chaitanya involving all the low-born people in the worship of God together. Nityananda (born in 1473), a son of Rarh Bengal, and his son Birchandra led the movement to the emergence of a mass religion (Lahiri 1993). The credit of the creation of Vaishnava Sahajiya school was given to Nityananda (Dimock 1966). The sexo-yogic method of worship was probably added later in this school with the intrusion of Buddhists. Birchandra took more than 1200 Buddhist monks (called Neras) and 1300 nuns (called Neris who were clean shaven) within the field of Vaishnava religion as designating them Bairagis (Sahajiya Vaishnavas). Out of the roots of Buddhism, the 'nirguna' Sahajiyas developed the Baul cult, and through their innovative philosophy of "Man of My Heart" (uttered in the song as manermanush, in Bangla), they opened up the avenues of discourse with the Sufis (Dasgupta 2004). The Baul cult, thus, originated in the first half of the seventeenth century as a legacy of Buddhism, Sufism and Vaishnavism as well as ancient fertility cult. With such assimilation and synthesis, the cosmic abode of the God is considered to be the human body (the microcosm), conceived by the Bauls as the temple of the divine (Sen 1929). It is noteworthy that Chandidas of Nanoor, another son of Rarh Bengal in the fifteenth century AD, contributed his philosophy on the supremacy of man

(*sabaruparemanushsatya* in Bangla) due to such divinity which started modifying the folk society to accept a new cult with music as the medium of expression of its philosophy.

4 The Bauls, Fakirs and Their Authenticity

The Bauls of Rarh (Fig. 2) are the wandering minstrels conveying their messages through songs and joyful dance (Figs. 3 and 4). Such messages are the outcome of a philosophy originated from Sahajiya Buddhism, later modified by the influence of Vaishnavism, Sufism and Tantric rituals prevalent in the society together since thirteenth century AD. The Baul songs, sung in a special tune of their own accompanied with dance performed in a unique style and rhythm, are considered as a peculiar type of rural ballads of mediaeval Bengal, and they are recognized as a rich heritage of folk culture of India (Bandyopadhyay 1989). With the passage of time, through the modern means of cultural communication, the Bauls became a subject of interest for the urban intelligentsia (Ray 1984). Increasing demand of the Baul songs and music among the international audience since the 1990s has made a paradigm shift of its texts from philosophical orientation to entertainment perspectives in order to earn more money and honour from their music. Being ignorant on their historical root hidden within the Sahajiya Buddhism, the Hindu Bauls consider Sri Chaitanya as the founder of their cult, while the Muslim Bauls under the Sufi influence have started recognizing themselves as Ayuls (derived from Arabic word 'Awliya' meaning saint). Both the sects are admitting themselves through their songs as 'Khepa' (madcap) which is very close to the literary meaning of the word Baul.

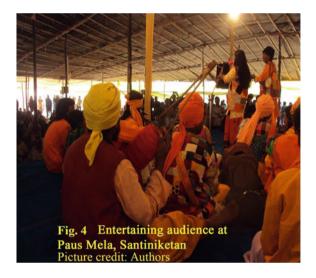
Fig. 2 Bauls at Joydeb, Birbhum. Picture Credit: Authors



Fig. 3 Recreating visitors with songs. Picture Credit: Authors



Fig. 4 Entertaining audience at Paus Mela, Santiniketan. Picture Credit: Authors



Space is vital in determining the tune of Baul songs which vary from region to region. The Bauls of North Bengal adopt *Bhawaiya* tune expressing their ideas, while *Jhumur* nourishes the Baul music in case of Rarh. Chottanagapur plateau is the land of Jhumur, the musical tune of which develops a distinct Baulscape in northern Rarh. Their centres called *Akhras* are the places of tourist interest in Joydeb-Kenduli particularly during 'Joydeb Mela', the occasion of annual reunion of the Bauls on the eve of *Paush Sankranti* (mid-January). In the year 2015, we have found about three hundred of such *Akhras* during the fair among which the following classification can be made (Table 1).

Table 1 Status of Akhras	Structural characteristics	Percentage (%)
	Permanent concrete structure	04
	Semi-permanent bamboo structure	79
	Open air gatherings	17
	E E 11 Commune has the south one 20	15

Source Field Survey by the authors, 2015

A few days before it, in the end of December 2014 at Santiniketan, both the Bauls and Fakirs found considered themselves privileged in getting opportunity to perform from the stage of *Paush Mela* which was introduced by Rabindranath Tagore in exposing our rural culture among the elite urbanites in the mid- of twentieth century. With *Paush Mela*, cultural tourism was actually introduced in the region a number of decades before.

With the exposure to the outside world, particularly after globalization, the Bauls in Birbhum are no longer compulsory followers of folk religion but are considered a Sahajiya artist who may have no connection with their philosophy but successful adopters of dress code and musical school in their performances (Mukhopadhyay 2012). Although they are bitterly condemned as fake within the original Baul society, they are considered as one of the very important elements in the touristscape of Rarh. In the survey made in the annual gatherings of Baul in Joydeb fair in the year 2015, only 15% of the Bauls among the samples interviewed were qualified as full-time Bauls. It is noteworthy that Rabindranath Tagore, the great poet who introduced Bauls to the world through his literary efforts, was also not interested in their method of worship. It was their music which attracted him, and consequently, the merit of their melodious voice and joyful dance won the attention of the world from the moment of their exposure in the non-rural cultural domain.

5 The Baul Circuit Forming Distinctive Touristscape

The increasing international arrival of visitors to experience their music is encouraging enough to develop a Baul circuit in northern Rarh incorporating the following places:

• **Birchandrapur**: Presently known as Birchandrapur after the name of Birchandra, the son of Nityananda, a Vaishnavite leader and partner of Sri Chaitanya, this is the most important place of pilgrimage for Vaishnavas in Rarh region. According to folklore, Garga Muni, who revealed the name Balaram and Krishna in the court of Nanda in Puranic age, appeared here in the disguise of a sage predicting the re-arrival of Lord Balaram in this place. He identified Padmabati, the mother of Nityananda, as the reincarnation of Rohini, mother of Balaram according to the Puranic scripture. On the very place where Nityananda was born, a temple is erected called 'Sootika Mandir'. There is pond nearby through which, it is

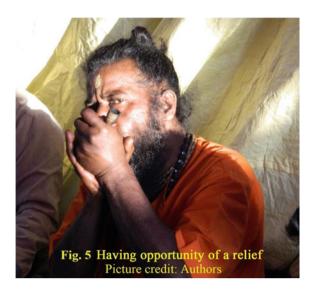
said, Nityanada disappeared (Bezbaruah 2003). Considering it as a '*vogapitha*', Vaishnavites visit the place for pilgrimage. In honour of Nityananda, a fair of seven days is held in the place in the Bengali month Kartik (October–November) on the eve of Goshthashtami. Pilgrims usually visit the old Banka Rai temple where the image of the deity was once worshipped by Nityananda. A number of such places associated with the memory of Nityananda and renowned visitors like Iswarpuri (who initiated Sri Chaitanya), Sri Chaitanya himself and Biswarup, his elder brother, are among the places of interest of Bauls and Vaishnavas. With the efforts of the International Society For Krishna Consciousness (ISKCON), Birchandrapur is growing very fast. The Bauls are one of the attractions during fairs and festivals organized in this historical settlement Ekchakragram, also called Ekchakra Garvabas. Ekchakra is bearing even the mythology of the Puranic age. At a place called Pandavtala, the Pandavas of the Mahabharata, the great Indian epic took shelter during their exile. In the mid- of paddy fields, a very small ordinary village temple⁴ is a place of pilgrimage related to the storey of killing a demon named Bakasur by the Bhima, the second Pandava. He went to Kotasur, about 3.5 km from the place to fight with Bakasur, and the bone of Bakasur in fossil form is kept at Madaneshwar Shiva temple. The places like Kotasur and Mayureshwar Dabuk were collectively known as Ekchakra which with time reduced to the entity of a small village of today.

- Chandidas Nanoor: Chandidas Nanoor, which celebrates Chandidas fair on the
 occasion of Dolyatra festival in March every year, is another centre of Baul and
 Vaishnavism. Originally a worshipper of Chandi, a Sakta Goddess, Chandidas
 was converted into Vaishnavism admiring the superiority of the faith. His love
 lyrics and songs inspire the Bauls, and the place is well-suited in the Baul circuit.
- **Joydeb-Kenduli**: Joydeb-Kenduli is the annual gathering place of Baul on the eve of Paush Sankranti in mid-January every year. Bauls consider Joydeb, the twelfthcentury AD poet and the author of 'Geetagovinda' as the founder of their faith. At the site of the house of Joydeb, Burdwan Royal family later built a Navaratna temple which is considered a masterpiece regarding manifestation of terracotta art. As there are a number of permanent Baul camps (*Akhras*) for their rest and relaxation (Fig. 5) centred at this place, a tourist may experience their music by visiting Joydeb-Kenduli at any time of the year.

The international tourists also visit Santiniketan in the attraction of Baul culture. In proper understanding of the origin, philosophy and functions of Bauls, it is essential for the tourists to visit places depicted in Baul circuit centring Santiniketan. The introduction of such a circuit, accommodating visitors at Santiniketan, will be very much useful in expanding cultural tourism in the region. Tourism geography advocates for such circuits along with visits to neighbouring Sufi shrines to understand the Baul-Sufi interface and for comparing them with the performance of Fakirs who are Muslims but speak in the same language of Bauls. They have no conflict because

⁴ Very small ordinary village temple: ordinary village temples are characterized by simple appearances devoid of various *ratna* (tower) and cornice combinations representing complexity in structure.

Fig. 5 Having opportunity of a relief. Picture Credit: Authors



of their similar aim to raise voice against fundamentalism advocated by higher caste Muslims and Hindus, respectively. Music is the instrument of Bauls and Fakirs to attract the illiterate subalterns to their faiths. By music, they have countered teachings of conventional scriptures given by Brahmins and Mullahs. The development of parallel religion led by Bauls and Fakirs appears as a challenge to fundamentalism. One of its earliest pieces of evidence is found in Rangpur (now in Bangladesh). The '*Baul Dhansha Fatwa*' (the religious ruling ordering the destruction of Baulism) was made by Muslim fundamentalist Riazuddin in the year 1925 to eliminate Fakirs along with Bauls together from the society considering them dangerous for the existence of Islam (Chakraborty 2009).

6 Pilgrimages in Sufi Shrines

Sufism is less an Islamic sect than a mystical way of life in which Muslims seek to find the truth of divine love and knowledge through direct personal experience of God. The word Sufi derives from the word 'Suf' meaning 'wool' referring to the woollen garments as the symbol of simplicity of early Islamic ascetics. Islamic mystics who are referred to in English as Fakirs and Dervish are called Sufis. They are also known as 'Fuqara', the plural form of the Arabic 'Faqir' (meaning poor), the Persian equivalent of which is 'Darvish' (Akhtar 2009). Based on the principles of 'tawakkul' (absolute trust in God) and 'tawhid' (the truth that there is no other deity but God), Sufism provides the spiritual guide as religious preceptor (called *Pir/Sheikh*) to a disciple (*murid*) in the path of mystical experience of the divine.

Sufism came to India from the Middle East in eleventh century AD and to Rarh Bengal probably in thirteenth century AD, which is called the golden period of Sufism in India. As it was a different climatic region from where the Sufis immigrated, their woollen garment underwent change into one made by cotton, stitching together a number of different coloured pieces of clothes. The Sufis by origin were orthodox Muslims, but in course of time, there grew up a heterodox type of mysticism under the leadership of the prominent *Pirs* respected for supernatural powers like giving life to the dead or killing anybody at their wish. Such Pirism was brought by Muslim immigrants to Bengal from Central Asia through North India. The non-Bengali origin of this cult is evident from the fact that even down to the present day in celebration like Urs, i.e. death anniversary of the deceased Pirs, the services are conducted in Arabic, Persian and Urdu languages (Khan 2013). In spite of being the representative of a different culture, the *Pirs* won the heart of common people, especially those in the lower strata of society by their contributions for human welfare. By erecting the dargahs and mazaars (shrines) in their memory, usually on their tombs, the followers worship them as immortal entities.

Patharchapuri near Suri, the district headquarters of Birbhum, is most popular among such shrines in Rarh Bengal. A *mazaar* (Fig. 6) erected on the tomb of Datababa, a nineteenth-century AD Sufi saint, is a place of attraction for both Muslim and Hindu pilgrims. Folk beliefs in the divine and mystical power of this *Pir* are the motivation of such pilgrimage, which is now both domestic and international. According to a legend, his power to relieve the people from misery and diseases ultimately brought him in such a position of great respect. After he passed away in the year 1891 AD, his performances for mankind were much more glorified, and his *mazaar* was subjected to pilgrimage. Till the first decade of the twenty-first century, it was, however, a small shrine, but recent renovations have made it a place for religious tourism. Throughout the year, hundreds of devotees come here every day to pray at the *mazaar* for the fulfilment of their wishes (Fig. 7). Except offering

Fig. 6 Patharchapuri Mazaar. Picture Credit: Authors



Fig. 7 Gathering of Fakirs. Picture Credit: Authors



animals as sacrifices, they put pieces of bright coloured clothes called *Chaadar* on the sacred grave of the *Pir* and spray *golapjal* (rosewater) on it. Then, such clothes are taken back to their homes as sacred things irrespective of religion and caste. Both Hindus and Muslims are found offering special type of sacred sweet called 'Sinni' and take it after the worship of the *Pir* in the *mazaar*. The participation of both Hindus and Muslims in the *Urs* festival is a scope to represent India's existence as a multicultural nation, and our Incredible India Tourism Promotion plan may take care of it. Arrangement of *Sama* (a dance form with song in Sufi way of worship) at the *mazaar* may be useful in drawing cultural tourists to this destination. Khustigiri is another important Sufi shrine (Fig. 8) of Bengal, the name is which uttered just after Patharchapuri because of its association with Hazrat Syed Shah Abdullah Kermani, the renowned Sufi saint of Eastern India. *Urs* is held (Fig. 9) between the eleventh

Fig. 8 Urs at Khustigiri, Birbhum. Picture Credit: Authors

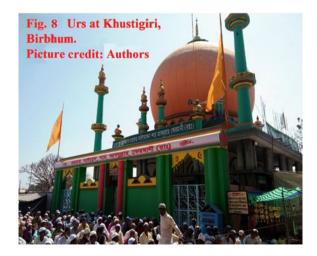




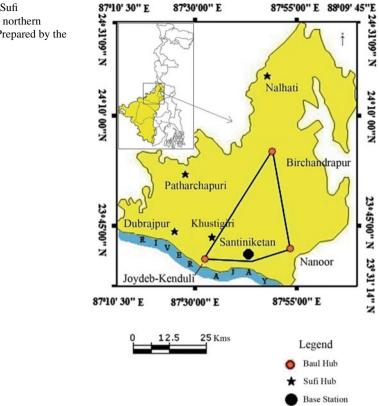
Fig. 9 The Sanctorium. Picture Credit: Authors

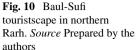
Falgun to fifteenth Falgun (24–28 February), which draws millions of devotees to this shrine.

The Shah Alam's *mazaar* of Dubrajpur is the next important Sufi tourism destination in the region. Every year in the mid-January, from the fifth day of Bengali month *Magha*, a three days fair of *Darvish* is organized at Dubrajpur involving Fakirs and Bauls of the region. In Nalhati, on the hill behind the Lalateshwari temple, a Shakti Peeth in Birbhum, a *Dargah* draws a huge number of pilgrims in its *Urs* on the fifteenth day of Bengali month *Baisakha* (end of April). Such tombs of sacred *Pirs* scattered in the region are not only the places of pilgrimage but also the hubs for future cultural tourism that may attract international visitors. Similar to the Baul triangle, a Fakir circuit may also be designed in northern Rarh incorporating Khustigiri, Nalhati, Dubrajpur and Patharchapuri as shown in Fig. 10.

7 Findings on Scope in Promoting Baul-Sufi Touristscape

Bauls of Rarh originated from the pre-Muslim 'Nirguna' Sahajiya tradition which was very much similar to Sufistic conception of divinity and the ideal of love. This is why, Sufis in Bengal came closer to Bauls, and the Rarh Bengal became a melting pot of the Sahajiyas and the Sufistic conception of the beloved. Both are antithesis of religious intolerance which permeated the orthodox trends of prevailing religions. Submission to a guide seems to be the key in the journey to God–*Pir* is the guide for Sufis, while *Guru* is transmitting the religious teaching to Bauls. The syncretistic practice of *sama* which combines song and dance is a Sufistic method, while Bauls are demonstrating special style, rhythm and texts out of their innovative philosophy regarding the body as the field of divine play and the role of Guru who is residing in the heart of such worship. This interplay of syncretistic concepts and practices





brought the Sufis closer to the Bauls (Dasgupta 2004). According to Sufis, love is the underlying principle of cosmic process as a whole, and without love, neither heaven nor earth survives. There is love between the sun, the moon, the planet and the stars, and in love, all are fixed in their position in the sky (Dasgupta 1946). Five Sufi stations have been identified passing from real world towards the divine world (Masud 2011), namely:

- i. Detachment from the world
- ii. Patience
- iii. Gratitude for all given by the God
- iv. Love
- v. Sublime pleasure.

The Sufi path leads to purification, sacrifice and illumination. The Bauls seek the same in their own way. They are seeking renunciation in a world of attachments (Bandyopadhyay 1989). In their simple language, they advocate for 'Ananda' (bliss), a concept from the Upanishads unconsciously which is expected to carry them to a higher abode (Chakravarty 1980). In fact apart from Sufism, there is influence of Vedanta, Sahajiya Buddhism, Tantra and Vaishnavism in Baul culture which makes

Table 2 Philosophical syncretism in Bauls	Character and content	Concept/practices incorporated from
	Body as micro-cosm	Vedanta, Tantra, Sufism
	Love as modus operandi	Sufism, Vaishnavism
	Guruvad (teacher centrism)	Sahajiya Buddhism, Sufism, Vaishnavism
	Emphasis on inner realization rather than outward ritual	Vedanta, Sahajiya Buddhism
	Anti-casteism, emphasis on human sexo-yogic practices	Sahajiya Buddhism, Sufism, Vaishnavism

Source Review of different literature and interviews

it very attractive for cultural tourists of international origin. The songs of Bauls disclose the love between our human personality and the divinity residing in the human beings. Considering body as the temple for worship, the Bauls are engaged in sexo-yogic practices⁵ (Letizia 2010) in order to fulfil the objective of union with the divine that manifests a unique blending of Tantra-oriented Shiva-Sakti tradition and Buddhist Sahajiya cult which later mixed with Radha-Krishna tradition and the Sufi cult with the introduction of the concept of love. While Tantra aims in the enhancement of power in oneself through sexo-yogic sadhana (austere endeavour) even adopting various cruel methods even using dead bodies, the Bauls emphasize on love in their sexo-yogic sadhana being influenced from the Vaishnava and Sufi traditions. For Vaishnavas, Krishna is the material element of nature, while Radha is its inherent energy. Vaishnava Bauls consider Chaitanya Dev as Maha Guru (teacher of the teachers) and follow the love principles of Radha-Krishna tradition, while Fakirs (Muslim Bauls) give importance to the concept of love directly relying on Sufi principles. The genesis of Baul culture from contemporary religious philosophies has been summarized in Table 2.

Both Bauls and Sufis of Rarh Bengal came closer to contribute almost the same spiritual path of self-knowledge facilitating the journey of the folk in the path of life. The Baul life has flourished in the agro-based rural society historically related with the growing of crops considered to be the act of creation. The Baul songs are spontaneous and natural in their formation, composition and presentation, born out of the heart of rural folk as the songs of the soil (Majumder 2011). With the growth of cultural and educational tourism, the urban elite—both domestic and from other countries–comes across such philosophy and songs of Bauls and Fakirs. After experiencing the overseas programme of Bauls, many foreigners also, according to our survey, have decided to visit the land of Bauls. A touristscape is, thus, gradually developing simultaneously with a threat of maintaining the authenticity of the Baul tradition. The conflict between the *Gayak* (only the singers with no religious affinity) and *Khepa*

⁵ Sexo-yogic Practices: based on the ritual theme of the body which conceives each organ as *Tirtha*, energy flow is like pilgrimage from one sacred point to another regulating within a body, while breath, called *Prana*, is conceived as vehicle in operational context.

(the real worshipper and practitioners) is already evident in the Baul world centred on the issues of authenticity. It is out of the social urge that the music was created during the seventeenth century in order to conceal the process of their *Sadhana*, and they still express their ideas through music (Chakraborty 2010). As its tune attracts man and attains international reputation, a number of professionals come in this field experimenting with its music without any consideration of its philosophic base. Recent educational and cultural tourism demands authenticity which is already challenged in the presence of such fake Bauls who can sing without going into the philosophy of the songs. The tourist guides with ability to interpret the Baul songs are, therefore, essential for promoting the Baul circuit. Here also lies the scope of employment of educated youths and involvement of non-government organizations to preserve the Baul culture, which is an important heritage and a rich source of cultural tourism resource for Incredible India tourism programme.

8 Conclusion

The original Baul songs sung in their own style have the capacity to inspire the human mind so that it may become divinized. With time and popularity, the text of Baul songs has transformed, and even social or political aspects are included in it. The Baul songs survive due to its tune attracting the music lovers, domestic as well as international. Their presence is considered as one of the milestones in the touristscape of Rarh Bengal. The renovation of Sufi shrines with re-introduction of 'sama', which are almost extinct by the interference of orthodox Mullahs and Maulavis, may revitalize the cultural tourist space in the region. One of the significant findings concerned with tourism geography of this region is the spectacular growth around Birchandrapur with the effort of ISKCON, which has planned to project the birth place of Nityananda as their second centre of pilgrimage after Mayapur on Ganga Delta which, according to their belief is the birth place of Sri Chaitanya. A huge flow of international visitors is expected in the region in near future, and it is essential to organize cultural tourism resources of Rarh Bengal in order to capitalize the scope of tourism, the largest expanding industry of the world. The analysis of the status of Baul and Fakirs in the tourism geography of northern Rarh is very much relevant in this context.

References

Akhtar S (2009) Faith and philosophy of Islam. Kalpaza Publication, New Delhi
Bandyopadhyay P (1989) Bauls of Bengal. Firma KLM Pvt Ltd., Kolkata
Bezbaruah MP (2003) Fairs and festivals of India. Gyan Publishing, New Delhi
Biswas A (1985) History of Northern Rarh—A geographical view. In: Mukhopadhyay SC (ed)
Geographical mosaic: Prof K. G. Bagchi facilitation volume. Modern Book Agency, Kolkata

- Chakraborty B (2010) Music of the Bauls: an art of thinking with sounds. In: Chakraborty B (ed) Folk, folklorists and folkloristic interpretation of society and folklore. Mitram, Kolkata, p 136–149
- Chakraborty S (2009) Baul fakir katha. Ananda Publication, Kolkata
- Chakravarty SC (1980) Baul: the spiritual vikings. Firma KLM Pvt Ltd., Kolkata
- Chattopadhyay S (2007) Lokayatapachimradha, Loksanskriti & Adhibasi Samskriti Kendra, Kolkata
- Chattopadhyaya A (2002) The people and culture of Bengal: a study in origins vol 1 part II. Firma KLM Pvt Ltd. Kolkata, p 429
- Dasgupta A (2004) Islam in Bengal: formative period. Soc Scientist 32:30-41
- Dasgupta S (1946) Obscure religious cults. Firma KLM Pvt Ltd., Kolkata
- Dimock EC (1966) The place of the hidden moon. The University of Chicago Press, USA
- Khan MDA (2013) Focus on Bengals' traditional Muslim societies. BMRI Publication, United Kingdom
- Lahiri A (1993) Chaitanya movement in Eastern India, Punthi Pustak, Kolkata
- Letizia C (2010) The sacred confluence between nature and culture. In: Lecomte-Tilouine M (ed) Nature, culture and religion at the crossroads of Asia. Social Science Press, New Delhi, pp 344–369
- Mahato B (1984) Lokayata Jharkhand, NabapatraPrakashani, Kolkata
- Majumder M (2011) Baul songs: in quest of universal humanism, Anthropological Survey of India, Kolkata
- Masud MK (2011) Sufi views of pilgrimage in Islam. In: Singh RPB (ed) Sacredscape and pilgrimage systems. Subhi Publication, New Delhi, pp 95–111
- Mukhopadhyay A (2012) Baul o Birbhum, Terracotta, Bankura
- Ray M (1984) The Bauls of Birbhum. Firma KLM Pvt Ltd., Kolkata
- Roy NR (1952) Bangaliritihas: adiparba. Deys Publication, Kolkata
- Sen K (1929) Medieval Mysticism of India. Luzac & Co., London
- Singh KS (ed) (2008) People of India: West Bengal. Anthropological Survey of India with Seagull Books, Kolkata



Premangshu Chakrabarty is a Professor of Geography in Visva-Bharati (a central university of India). Graduated from Presidency College, Kolkata, he obtained his Masters and Ph.D. degree from Visva-Bharati. Specialized in cultural and tourism geographies, he has contributed more than sixty research articles (https://www.researchgate.net/profile/Premangshu_C hakrabarty2) in reputed journals and presented his research outcomes in various international and national level conferences. Seven scholars have already been awarded Ph.D. under his supervision and six scholars are working presently. He has teaching and research experience of more than 20 years.



Tushar Mandal is serving as an Assistant Professor in the under-graduate Department of Geography, Saltora Netaji Centenary College in Bankura district of West Bengal, India. He has submitted his Ph.D. thesis in the field of tourism geography under supervision of Professor Premangshu Chakrabarty in Visva-Bharati (a central university of West Bengal). Previously he served as a project fellow in UGC Major Research Project entitled 'Geography of Tourism in the Rarh Region of West Bengal: A Sustainable Approach' and co-authored nine research articles (https://www.researchgate.net/profile/Tushar_ Mandal4) in the field of culture, heritage and tourism geographies published in reputed journals.

Human Settlements



Human Settlements (Style: Pop Art) Painting by Miss Varsha Dahiya Picture by Bharat Dahiya

Cultural Images of Kolkata: A Contemporary Perspective



L. N. Satpati

Abstract Urban culture primarily defines the city itself, which is manifested by its institutional set up, the lifestyle and cultural forms continuously transforming within a city system. Cities usually witness steady progress by incorporating broad cultural attributes and identities. Urban entities having distinct physical existence by respective forms and functions produce certain images of their own in the mental map, and in the way of life of individuals and communities living in a landscape system where relative locations play significant roles over absolute locations. Kolkata being one of the major metropolitan cities of the world has been taken to cite various urban locations having unique expressions and identities of their own. Moreover, this post-colonial city is often cited as a foundational touchstone of the Bengali identity. The blending of eastern and western cultural influences over the centuries has stimulated the creation of cultural diversification in this metropolitan city. However, landscape is a key concept in geography, and the cultural entities prevailing within a landscape can be designated as cultural landscape. The article brings out the idea that how cultural imprints provide spatial identification to places in Kolkata based on perception of prominent personalities. It further provides insights about Kolkata based on the images of cultural heritage and perception of identities of locations at micro-level, pseudo-locations and shift of the imageries. It also describes how cultural legacy is under threat.

Keywords Culture \cdot Kolkata \cdot Cultural heritage \cdot Perception \cdot Images and identities

1 Introduction

In the present century, landscapes of the places have been rapidly and dramatically changing by the effects of globalization (Lambin and Meyfroidt 2011). Cultural features, such as languages, religions and traditions, play important roles in the

L. N. Satpati (🖂)

UGC-Human Resource Development Centre, University of Calcutta, 92, A. P. C. Road, Kolkata 700 009, India

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_20

developing processes of societies (Keceli and Kocaman 2014). Usually, if multiple unique social communities are located in close proximity, they are going to have, after a while, some common manifestations in the long run (Fitzpatrick 1966). Even though communities and places have many similarities, they still have many differences and uniqueness. Landscape, especially cultural landscape, is one of those important footprints of unique identity of all places and communities (Keceli and Kocaman 2014). The present article intends to focus on an urban landscape, taking examples of Kolkata—a relatively old megacity of India, for understanding its cultural milieu as manifested by the location-specific identities developed in it over time.

German geographer Otto Schluter (1872–1959), in 1908, formally used the term 'cultural landscape', and Sauer (1925) was the first scholar who proclaimed, in the 1920's, that cultural landscape was a product of human activity. The World Heritage Committee, in 1992, extended the idea to include the entities that were neither purely natural nor purely cultural in form (i.e. 'mixed' heritage), and in 2006, the committee observed that, a cultural landscape is, 'an inscribed surface, akin to a map or a text, from which cultural meaning and social forms can simply be read' (Pannell 2006). The expression that, 'culture is the agent, the natural area is the medium, and the cultural landscape is the result' (Plumwood 2006), is one of the best explanations of Sauer to support his idea about formation of cultural landscape (Schein 1997; Kayserili 2010). Shaping and reshaping of the landscapes are very much associated with locations, an indispensable element of geography. Absolute locations, expressed with reference to an arbitrary grid system, as they appear on a map, have now become secondary in cultural geography to give importance to relative locations concerning features relating to other features, as it may be argued that location is a social product, rather than a thing in itself (Satpati 2010). Thus, the definition of location extends to include not only a place, but an event, an institution, a person and any construct of the society. There is another approach to claim that cultural landscape cannot be a 'final product' of human experience (Schein 1997). It must be more than that, because there should be some other interactions and relations which should play an important role in the formation of a landscape.

Many works of cultural geography (D'souza 1979; Egoreichenko 2018; Francesca 2014) include various social issues along with the cultural environment of the towns and cities. However, this paper is a modest attempt to focus the cultural images, i.e. identities and expressions associated with urban locations (or space) and their shift, if any. Kolkata, in its wider spatial sense, has been chosen as the study area, mostly due to the author's familiarity, experience and feeling of the city through observations and personal interactions with the people for the last about three decades. Pertinent facts have been gathered from relevant published literature including books, journal, monographs, periodicals, films and other documents.

Spatial and temporal accounts of the development of Kolkata or a part of it are out of the purview of this discussion as many reliable publications on the subject have already been produced by historians, sociologists, geographers and other social scientists. Certain specific references of the past may be cited here just to contextualize the narration. The pioneering works on the social and cultural geography of Kolkata certainly include those of Bose (1964), Berry and Ress (1969), Sinha (1972), Mitra (1990a), Munsi (1975, 2010). The geographical studies conducted recently are, by and large, doctoral dissertations that involve terrain character, land use, water logging, population characteristics, urban facilities, public services, tourism, slums, urban sprawl, urban renewal, diseases, pollution of air and water, urban greens, etc., which can be found in libraries and journals. However, mention should be made of some of the recently published documents of Chaudhuri (1990) and Mitra (1990b) to address the socio-cultural aspects or problems of the city.

As the present paper is based on selective examples cited to facilitate identification of cultural expressions of some urban locations of Kolkata, it is to be noted that the study is only indicative, although a general pattern and trend of the subject may emerge from the instances. More study is definitely required by incorporating the causal factors for the location-specific images to have a comprehensive idea of the pattern as well as the trend; many of them are definitely available in the works of other social sciences, to associate the cultural expressions of the urban locations and to generalize the shift of the expressions over time. It is also important to note that the present author has no intention of either glorifying or undermining any of the locations taken up here for the purpose of citing examples. Moreover, scholars may disagree regarding the perception or opinion formed and presented by the author in this discussion.

2 Perception of Kolkata by Some Prominent Personalities

Since its formal beginning by Job Charnok in 1690 (Blechynden 1905) under the aegis of the then East India Company, Calcutta (now Kolkata) has got many sobriquets coined by the persons representing different ideological practices. Hardly, any other city evokes images such intense, wide-ranging and truly urban as Calcutta/Kolkata, since the city had been simultaneously described very passionately as the 'Second City of the (British) Empire', 'City of Palaces', 'Paris of India', 'the Nation's Cultural Capital', 'a Daily Festival of Human Existence', 'a Celebration of Life', the 'City of Joy' (Dominique Lapierre); or quite negatively as a 'Plethora of Suffering', the 'City of Dreadful Nights' (Rudyard Kipling), a 'Dying City' (Rajiv Gandhi) and that of 'God's Excrement' (Scheisshaufen Gottes by Günter Grass), Kolkata, and therefore it appears, had been a manifestation of urban conditions (Herzog et al. 2008). Theroux, in his novel 'A Dead Hand: a Crime in Calcutta' had given another turn to the city, describing it as a 'place of spectacular corruption and decay that is at once enervating and regenerating' (The Telegraph 2019). Some others preferred to call it a 'City of Procession' or 'City of Strikes' to signify the political culture of the city. In a nutshell, it was stated long ago by Chunder (1978), one of the very prominent yesteryear citizens of Kolkata that Calcutta/Kolkata happened to be a 'City of Controversy'. Still, many scholars and even the common people of the country have much regard for Kolkata as 'the cultural capital of India' (Nkadmin 2017). This expression has its deep mooring in the renaissance of Bengal, nay India, when Calcutta used to be the centre of all facets of cultural activities, to their highest level of accomplishments, as used to be appreciated worldwide.

3 Images of Cultural Heritage in Kolkata

Cultural heritage refers to the 'things, places and practices that define who we are as individuals; however, Kolkata has some of the incomparable heritage sites that have been a witness to the city's glorious past. While there are plenty of heritage places in the city that will teleport one back in time, there are some that are not as famous as others but are just as rich in history, e.g. Lascar Memorial which was built in the memory of 896 Lascars who laid down their lives during the World War I fighting for the British Navy; Toong on Church, a magnificent colonial architecture with red brick exteriors; and Nanking Restaurant, a hub of various cultural activities since the city's early days, to be found located at Chatawala Galli, also known as Tiretta or Teritti Bazar Street (Fig. 1) in central Kolkata. The Calcutta Police Museum (Fig. 2), situated at 123 Acharya Prafulla Chandra Road, was formerly the family residence of Raja Rammohan Roy. The residence was later converted into Sookeas Street Police Station during the British era. The door and wheel of Charles Tegart's car, which were bombed by the revolutionaries, are also exhibited in the museum. Robertson's Monument is the only surviving tomb of the demolished North Park Street Cemetery (Fig. 3). The historic cemetery was a family burial ground of the well-known Robertson family whose male members served the British police for



Fig. 1 Teritti Bazar happened to be one of the oldest markets of Kolkata where the immigrant Chinese traders and manufacturers used to produce and sell commodities like shoes, silk, umbrella. Picture credit: Amir Khan



Fig. 2 Calcutta Police Museum houses the historical records, weapons and other important exhibits pertaining to crime, law and justice. Picture credit: Nabab Khan

three generations. The North Park Street Cemetery, built in 1797, contained the grave of Lieutenant Colonel James Achilles Kirkpatrick, made immortal by author William Dalrymple in his best-selling novel, the White Mughals.

The Belgachia Rajbari (Fig. 4) is situated inside the Belgachia Milk Colony in North Kolkata. The venue was frequented by Prince Dwarakanath Tagore and other notable names like the Dutch Prince of Orange Henry and King Edward VII. The Belgachia Rajbari also housed a theatre hall, where some of the famous Bengali plays have been staged. Located next to the Belgachia Bridge, which is the holy place of worship for the Digambara Jain community in Kolkata, the temple, built in 1914, is dedicated to the twenty-third Tirthankara Pareswanath. The interior of the temple is decorated with magnificent structures, fountains, flower beds and landscaped rock gardens. St. John's Church, considered as the first Parish Church of Bengal, became the primary cathedral of Kolkata in 1815. Basically, a cathedral, the St. John's Church in Kolkata's Dalhousie Square is one of the oldest public buildings built by the East India Company after Kolkata became the capital of British India. The beautiful church, located in the heart of Kolkata, was erected in 1787 using funds raised through a public lottery. Finally, the majestic Town Hall (Fig. 5), located close to the city centre, stands as a witness to several historic gatherings and debates that had a huge impact on the political and socio-economic landscape of British India. The heritage building, erected in a Palladian style, was designed by French military engineer Colonel Gastin. The hall was made open to the public in 1814.



Fig. 3 South Park Street Cemetery is one of the oldest existing Christian burial grounds. In the north of this, on the other side of Park Street now renamed as Mother Teresa Sarani was the famous North Park Street Cemetery meant for the high-profile British personalities. It is now non-existent and was replaced by commercial and residential buildings. Picture credit: Rajat Kr. Paul

The most promising significance of Kolkata's cultural heritage is 'Durga Puja' (Fig. 6) which is India's official nomination for UNESCO's 2020 Representative List of Intangible Cultural Heritage of Humanity. Sangeet Natak Akademi, under the Union Ministry of Culture is the nodal agency that sends recommendations for cultural institutions in India that need protection and preservation. According to the Akademi website, Durga Puja, a 'conglomeration of different cultures', is India's choice for the 2020 update of UNESCO cultural heritage list.

4 Perceptive Identities of Some Locations in Kolkata—Examples at Micro-Level

Peoples' perception of a location (i.e. place) is sometimes very strongly associated, often seeming to be synonymous, with one of its attributes that may or may not be always true. Many such examples can be cited from different locations of the city of Kolkata, like Sealdah (Fig. 7) or Howrah for crowding, Dharmatala for bargaining and cheating (i.e. an infamous contradiction to the original meaning of the name),



Fig. 4 Belgachia Raj Bari, also known as Belgachia Villa or Paikpara Raj Bari, was originally built by Auckland, an Italian and later on bought by Prince Dwarakanath Tagore, grand parent of Rabindranath Tagore. The palace was used for party and was a place of royal gatherings where exchange of social and cultural life between the Europeans and rich Bengali natives was quite frequent. Picture credit: Amir Khan

Barabazar for wholesale marketing, College Street (Fig. 8) for education, Alipur for gaol or zoo, Jorasanko for Thakurbari (of Rabindranath and others), etc. How can Indira Bhawan be isolated from the life and living of the late Jyoti Basu, although the two names are ideologically antipodal!

But, the locational identity changes over time. Babughat and Victoria Memorial (Fig. 9) happened to be places of elite class outing during the not so distant past, but for the present generation, the places do not have any romantic relevance due to many reasons. Similarly, it is said that the International Kolkata Book Fair at Maidan



Fig. 5 Built in 1814, **Town Hall** manifests Palladian Neoclassical Doric style of architecture that was originally meant for a place of social gathering of the European nobles. Later on, it housed many government offices including the Calcutta Municipal Corporation. The hall witnessed lectures delivered by many famous personalities of India and abroad. Picture credit: Amir Khan

used to attract more people from almost all walks of life than its present location at Milan Mela Prangan near the Science City (Fig. 10).

Some two years ago, the former Chief Minister of West Bengal, a man born and brought up in north Kolkata and established in south Kolkata tempted to remark, '*Uttar* (Kolkata) *ta ektu sekele- pranobanta, dakkinta baddo beshi adhunik*' (means: the north Kolkata is time-honoured and lively, but the south Kolkata is too modern) and expectedly invited criticisms from many of his opponents, although, as a matter of fact, there is no clear (administrative or other) boundary to demarcate the city into north and south. Many common people of Kolkata, especially those having no reading of the history of the city, do have an impression in their mind that Laldighi at BBD Bag area is related to either the brave anti-British operation of Binoy-Badal-Dinesh or the red colour of the Writers' Buildings (Fig. 11), a citadel of the prolonged Left Front Government of the state.

It is not out of context to cite few examples how location of origin of a product regulates the mindset of the Kolkata people, while they purchase certain commodities, e.g. vegetables and fishes coming from Dhapa (Fig. 12) located in the eastern side of the city are considered as inferior to the products of other '*deshi*' (other than Dhapa?) areas. Inferiority complex is also attached with the names of some locations. How



Fig. 6 Bagbazar Sarbojanin Durga Puja held in autumn, the festival with Durga Puja is the biggest fair of Bengal to attract and engage millions of people. The festival originated as a peoples' festival in Bagbazar and later on spread across the districts and outside. Kolkata is still the centre of attractions of the puja pandals, and recently a carnival organized on the day of immersion has become part of this mega festival. Picture credit: Anwehsa Haldar

can one living at Sonagachi, Muchipara, Haarkata (Bowbazar) become boastful of uttering his place of residence? Thus, Morapota, on urban renewal, becomes Green Park, Chuarban becomes Nabapally. But, a person living at Barisha, may be (s)he is a newcomer to the area, is highly proud of his place of residence, as if (s)he has the legacy of Saborno Roy, an erstwhile zamindar of the locality. Some housing complexes prefer not to mention the address of their locations, but they themselves pose to be location identities, like Anupama, Abhishikta, Diamond City, South City, Hiland Park. Often, they represent a new class of people very thinly attached to the usual cultural goings of the city.



Fig. 7 Sealdah is one of the most crowded places of central Kolkata and is now important for the railway station, which came up in 1862. However, before that, the place was a major trading centre during the Mughal period, and the traders used to take rest in the nearby baithakkhana (road). Picture credit: Amir Khan

5 Locating the Images of Urban Transport in Kolkata

Let us now cite some entities associated with the transportation system, the lifeline, of the city. Introduction of the metro rail was definitely an awesome thing to the average Calcuttans of the 1980s. The overall atmosphere of the system appeared to be so modern and sophisticated that many of the low-profile people of the city stayed away from it although the fare was moderate and affordable. It remained clean, punctual and perfect. So, the people after coming from the chaotic surface railway system, when boarded into the metro rail, became polished; and, the behavioural change of the same group of people could be appreciably notable. Since it runs through underground tunnel, many people prefer to call it either tube rail or underground rail. But, the extension of the system up to Garia, during the recent past, has changed its perception among the people. Now, many commuters, mainly those availing the service in its previous form, have been utterly disappointed of the huge crowding and have begun to call it 'Bongaon Local' to express their sheer dissatisfaction. Besides, many of the commuters are not happy with the names given to the extended stations, as they do not indicate any spatial conformity with the surrounding areas, which makes it difficult to create any mental map of the locations.

People of Kolkata are quite accustomed with the revision of bus fares, and they have many experiences of agitations over hike of the fares. With the revision of fares,



Fig. 8 College Street is synonymous with bookstores and educational institutions. The University of Calcutta, the oldest modern public university of South Asia, came up on this thoroughfare and a number of colleges, some of which became universities in the recent past, were established within its vicinity. Picture credit: Amir Khan

many 'public buses' have been found to write 'Notun Bhara' (New Fares), so that there is no scuffle between the conductor(s) and the passengers on the issue. Recently, there has been introduction of new buses under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), and the look of such vehicles is so elegant that many ordinary passengers have become suspicious whether these are affordable for them. So, to remove the confusion and more so to attract a good number of passengers, authorities of the concerned buses have prominently displayed the words, written '*ek-ibhara*' (i.e. the same fare).

There are many roads in the city having their names changed, e.g. Harrison Road has become Mahatma Gandhi Road or in short M. G. Road, Cornwallis Street has become Bidhan Sarani, Central Avenue has become Chittaranjan Avenue, etc. But, it is interesting to note that people of older Kolkata or elderly persons living in the city for generations prefer to call them in their old names. Again, some of the newly constructed or renovated roads had a different kind of significance at least when these came to exist, e.g. the Eastern Metropolitan Bye Pass, and many prefer its shorter form of E. M. Bye Pass, (and perhaps, none in its changed name of Satyajit Roy Sarani) as an expression of speed; and, the VIP Road (as the VIPs of the city used to made their journey to the airport comfortable instead of going through the age old Jessore Road), an expression of glamour. But owing to severe traffic congestion along these routes, they have now lost their previous fame.



Fig. 9 Completed in 1921, Victoria Memorial is a huge marble building constructed to perpetuate the memory of Queen Victoria. Presently, it houses a museum on the history of the city and is one of the most important tourist attractions and a place of cultural gatherings. Once along with Eden Garden and Babu Ghat especially before the advent of the shopping malls and multiplexes, the place was also called 'lovers' point' as couples used to visit the place and enjoy their romantic moments. Picture credit: Asraful Alam

There is perhaps no distinction among the perception of the city people about any transport route having a suffix of road, sarani, avenue or street except their goodness to conduct a quiz on Kolkata. Similarly, there are many islands over the road junctions called parks, e.g. Golpark or Kasba Golpark. One may wonder how they can be parks!

Many bus routes are now non-existent, but their sweet memories are still preserved in the form of names of the bus stands, like 8 B at Jadavpur, 14 at Behala. Similarly, many bus stoppages are there on different transport routes either in the name of a tree like Champatala on Raja Rammohan Roy Sarani, Bakultala near Dalhousie (i.e. BBD Bag), PoraAswathwatala on Diamond Harbour Road or industries like Pitch Kall (Tar Factory) on Raja Rammohan Roy Road or Biren Roy Road (East). The trees are no more, and the industrial units have been replaced by housing complexes, although the common people of the city still remember them by the name of these stoppages. How can South Suburban High School keep its previous location of urban fringe, when the city is continuously extending towards the south?

Howrah Bridge (Fig. 13) (long ago renamed as Rabindra Setu) used to be a cherished cultural expression of the city, perhaps due to its grand design. Vidyasagar Setu (Fig. 14) came up in the 1990s with more modernity, although many still prefer to call it the 'Second Hooghly Bridge', and some sociologists consider it an object



Fig. 10 Inaugurated on 01 July 1997, Science City heralded the modern era in Kolkata with its magical science and technological exhibitions and stimulating shows enthralling both young and old people. Picture credit: Rajat Kr. Paul

of transformation in the cultural mindset of the city (Mitra 2009). Moreover, many new kind of locational identities have been created out of some common existences, e.g. PNB is surely the short form of the Punjab National Bank, but it is a definite location at one the entry points of Salt Lake City; the same is true for the Bank of India in between Bowbazar and Sealdah. Now, a locational identity in the name of ST-6 bus terminating at Ghoshpara, Tollygunge is on the making by a new type of commuters for the IT offices at Sector-V of Salt Lake City. It is also interesting that inapt pronunciation by the bus conductors/helpers has created a low-profile expression like Bhangard out of Bangur, in both north and south Kolkata. Similarly, Jadubabu's Bazar (in short Jadu Bazar) has become Jaggu Bazar.

6 Pseudo-Locations and Shifts of the Imageries

Many locations of the city are either difficult to pinpoint or they may use to mean differently. These are mainly constructs of mass media, e.g. traditionally called Studiopara, now Tollywood, has been coined in the line of Hollywood to denote the location of the city's film industry, although the studios are not merely confined



Fig. 11 a and b: Historic magnificent house originally designed as a workplace for the junior servants, called 'writers' of the East India Company, Writers' Buildings with its Greco-Roman look became the citadel of power for the provincial government of West Bengal. However, since October 2013 the secretariat of the state government has been functioning from Nabanna, a skyscraper was abandoned by the Hooghly River Bridge Commissioner's Office located on the western end of the Second Hooghly Bridge (Vidyasagar Setu). Blue and white colours of the building signify a change of guard in the state politics. Picture credit: Pallobi Halder



Fig. 12 Dhapa is the largest dumping ground of Kolkata Municipal Corporation. Using the solid and liquid wastes, farmers of the area cultivate vegetables on the nearby lands and produce fishes in the ponds (locally called 'bheris'), which are relatively cheaper because of high yield and low transportation costs. Picture credit: Rajat Kr. Paul



Fig. 13 Connecting Howrah railway station in the west and Barabazar in the east across the river Hooghly, **Howrah Bridge** or the New Howrah Bridge or now called Rabindra Setu completed in the year 1941 is a marvel of engineering expertise and happened to be the main gateway to Kolkata. Its magnificent hanging cantilever structure made of steel plates and bolts is a wonder in itself, and it is a testimony to the identity of the city of Kolkata. Picture credit: Asraful Alam



Fig. 14 Vidyasagar Setu or the Second Hooghly Bridge, completed in 1992, is situated at south Howrah Bridge and is considered to be a piece of modern design with the bridge hanging on ropes from the four towering pillars standing on both sides of the river. Picture credit: Amir Khan

within Tollygunge; similarly, Office-para, a hybrid word has been created to mean Dalhousie/BBD Bag area and also Park Street area, although many important offices are now located at Salt Lake—Rajarhat areas; and *Boi-para* [Note: Bengali 'para' may be similar to 'neighbourhood'] for College Street, famous for books—although many bookshops are scattered in other parts of the city. Similar expression is also true for 'Jatra (public theatre)-para' which is mainly based in the Chitpur area.

The mass media very often use the phrase of 'Alimuddin Street' to make it synonymous with the political authority of the Communist Party of India (Marxist), and now 'Kalighat', being the area of residence of the present Chief Minister of the state of West Bengal. Regarding Kalighat (Fig. 15), a cultural shift in expression of location has clearly taken place from religious to political.

It is relevant to note some other aspects of the location images. For example to show respect to a male Bengali person, it is customary, even today, to add the word 'babu' as a suffix for a Hindu and 'saheb' for a Muslim. But, there is no 'babu-para' or 'saheb-para' in Kolkata to identify a Bengali Hindu- or Bengali Muslim-dominated area. However, the term 'saheb-para' is often used only to describe the area (probably adjacent to Park Street), once dominated by the European residents.

The social and cultural areas of the city could be demarcated on the basis of various attributes of its inhabitants, but the homogeneity and solidarity of these areas are fast vanishing to exhibit a different kind of expression mainly based on economy, i.e. source and volume of income and the kind of expenditure for goods and services. The post-liberalized new generations perhaps do not believe in location affiliation, and therefore, they seldom have any interest in the identity of the so-called para-culture. Internet has created an artificial space (e.g. Facebook) for the young

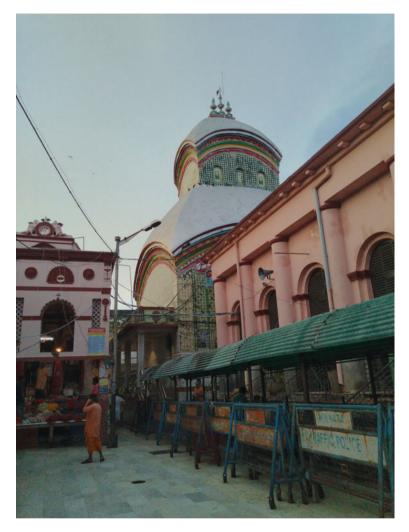


Fig. 15 Kalighat is traditionally famous for the Kali (a Hindu goddess) temple located on the left bank of the Adi Ganga. However, the area is recognized for its association with the residential place of the present Chief Minister of West Bengal, who has been successful in capturing the political power of the state from the Left Front Government, who ruled it for more than three decades. Picture credit: Pallobi Halder

netizens to subscribe and promote a virtual locational identity of themselves to enjoy and express their affection, love, happiness, anger, cruelty, coordination, etc.; while the older generations still do feel their identity through their traditional cultural expressions, although sometimes rather confined, e.g. in their use of such linguistic peculiarity (e.g. *suktuni*, i.e. shukto, a type of curry among the Bengalis, *habeneko* means will not happen, *firlum* meaning I/we have come back), the typical Bengali dialect of some of the very old families residing in the oldest residential areas of Kolkata. Majority of the Hindi, Urdu, Punjabi, Chinese, English and other languagespeaking minority people are still culturally confined within specific locations of the city. Kolkata has, till today, relatively greater respect to the people speaking European languages. The colonial mindset of the city, even after six decades of the Independence of India, is also reflected by the tendency of simultaneous use of the British names of the locations even if there are the Indian substitutes, e.g. Indira Gandhi Sarani for Red Road, Saheed Bhagat Singh Udyan for Minto Park, Mahakaran of Writers Buildings.

During the recent past, a significant shift in the social structure, especially of the middle- class population of the city, has taken place in which many elderly and children population have to spend a sizeable amount of their daily time on watching television programmes, mostly serials. Many of such programmes are so tuned that an artificial location is created where the viewers virtually meet the character roles played by the actor or actress of their choice, and these people strongly react psychologically and socially according to the storyline.

7 Miscellaneous Images and Identities

Perhaps, it is not possible to find any other area of the world (except Kolkata) where both urban and rural locations remained complementary to each other (Mukherjee 2003). Many such locations based on professions (e.g. Potuapara, Paikpara, Jelepara), agricultural and other land uses (e.g. Kalabagan, Kakurgachi, Pataldanga), marketing of different products (e.g. Garanhata, Chowlpatti, Janbazar, Chandnichawk, Mechuabazar), and fishing, bathing, cremation or trading ghats (i.e. river banks, e.g. Beleghata, Chingrihata or ghata, Pathuriaghata, Nimtala (ghat), Kudghat) and also based on the name of local ponds like Kantapukur, Beniapukur have been cited by different authors (Chaudhury and Mukhopadhyay 1975; Blechynden 1905).

Identities of the old locations are now perhaps not related to their previous attachments, for example Kakurgachi-Phulbagan has achieved one of the very sophisticated levels of urbanization over the years. It is impossible to find any garden (or orchards) at Kalabagan or Talbagan or an elephant at Hatibagan; not a single fish at Mechuabazar—instead it is a fruit market now; no 'tal' (palm) tree at Taltala, no 'jhaw' (*Tamarixindica*) at Jawtala, etc. Hardly, any pukur (pond) at Jhamapukur, any paik (sepoy) at Paikpara or a ghat at Kudghat can be found at these locations. Long ago, Dada Thakur Sarat Pandit penned a song titled '*Kolkata kebal bhulebhara*' (Kolkata is full of mismatch/confusion) that justifies the situation.

There seems to be a relatively long and traditional association between location or places with some events like Santosh Mitra Square and Mahammed Ali Park with Durga Pandal and Dover Lane with annual classical music conference; or Pataldanga being associated with a fictitious character, called Tenida. The increase of average income especially of the new generation, moulded more in the western type of culture, is inclined towards a different kind of sources of entertainment, for which the urban renewal of the city is now witnessing modern multiplexes, food plazas, shopping malls, health clubs, gymnasiums and night clubs which were definitely out of imagination in the city-dwellers before the nineties of the last century. It is sometimes said that Kolkata is gaining its maturity as a cosmopolitan city incorporating facilities truly international, although the facilities are confined to a limited section of the society, particularly those without any geographic barrier.

8 When Cultural Legacy is Under Threat

Globalization, technological changes, increasing population and its heterogeneity have caused paradigm shifts in human behaviour and cultural values over time (Banerjee-Guha 2002, 2006, 2011). The consequence brings about distorted human interactions, and humanity is gradually losing its shine. The situation has changed considerably in the last two decades or so. After 1991, with the introduction of what is known as liberalization and globalization; significant investment was focussed in Kolkata, especially in the city's service sector as well as the built-up environment in the suburbs. Increasing population growth and concentration concerns the issues of mass unemployment, widespread illiteracy, the explosive growth of slums, snarling trace congestion, loss of public and green spaces (Ghosh 1994, 2005), alarming levels of water and air pollution and a general deterioration of infrastructure and services. Such problems contribute to the general sense of neglect and decline that has gripped Kolkata for decades. Some say approvingly that the 'city of joy' has become the 'city of fly-overs' (Mukherjee 2004). A particular source of pride for many has been the surge in building construction in and around the city in recent years, especially in the number of 'international style' luxury condominiums. In these housing complexes and transformations of urban space in Kolkata, the idea of the mythic 'global Indian' and the idea of the 'global city' have taken concrete shape. Such massive developments have their significant impacts on the social, economic and ecological environments of the city. Critics worry that rapid urbanization in the areas most favoured by developers will threaten the East Kolkata Wetlands (Fig. 16), an ecologically sensitive region, a Ramsar Site that includes fisheries, farms and an ingenious system for managing Kolkata's wastes (Bunting et al. 2002). Not only this, growing population and westernized lifestyle demand ignoring the actuality of this post-colonial heritages. Growing emphasis on private sectors, aesthetic outlook of the city and so-called cosmetic urban development make city heritages vulnerable, and colonial imperial centre becomes post-industrial wasteland (Keceli and Kocaman 2014).

According to G M Kapur, state convener of the Indian National Trust for Art and Cultural Heritage, 'conservation and preservation works in cities like London, Penang and Malacca have shown that architectural wealth can be conserved for adaptive reuse and for tourism to generate revenue' (Banka 2019). Kolkata's architecture is



Fig. 16 Declared as a Ramsar Site in 2002, the East Kolkata Wetlands (EKW), as named by the famous ecologist Dhrubajyoti Ghosh, is an unique human–environment relationship that purifies sewerage water of the city of Kolkata almost naturally before being released to the Sundarban region in the downstream of the Kulti-Bidyadhari-Matla river system and employs a large number of people in peri-urban agriculture and pisciculture. Picture credit: Prativa Karmakar

a unique mix of styles, reflecting the communities that settled in the city over the decades, a diverse collection not seen anywhere else in India. Classical residential buildings, art-decorated commercial structures, gothic administrative buildings and bengali-style homes dot the city. The present Kolkata picture is something different, as Chaudhuri (2013), author and founder of 'Calcutta Architectural Legacies' stated, 'In Calcutta, there is no clear idea of why buildings need to be conserved and what needs to be conserved. That the entire city is a site of valuable architectural heritage was not being recognized' (Banka 2019).

9 Conclusions

The city of Kolkata holds its importance due to the cultural identification people can connect to. Besides being a storehouse of cultural heritage of varied types, Kolkata holds significance of urban facilities like the images of urban transport. The shift in perception of the image of Kolkata by prominent personalities to perceptive identities locations carry and how the cultural legacy today is prone to threat is a concern. The post-liberalization urban renewal is more market orientated to cater to the needs of specific target groups mainly based on their economic status instead of profession or ethnic affiliation. The residents, irrespective of their present location of living and work, are more inclined to the colonial set up of the city than to remain accustomed with the current developments that are taking place in these days. On the other hand, it seems that with internationalization of the cultural elements and preference of English education, the newer generations of the city are becoming more cosmopolitan having similar expressions and identities; and perhaps, the cultural diversity of the city is shrinking at a fast pace. Another important point is people's adherence to the traditional set up, e.g. the change of old names of the establishments with new names often does not work; rather, it makes a lot of problems to characterize Kolkata a 'city of confusion'.

Acknowledgements This is a revised version of the paper entitled 'Cultural Images of Urban Locations: Examples and Experiences of Kolkata' published in the *Geographical Review of India*, 2010, 72 (4) 341-348, ISSN 0375-6386. Necessary permission has been obtained from the Secretary, Geographical Society of India, and Kolkata for which the society is hereby gratefully acknowledged by the author.

References

- Banerjee-Guha S (2002) Redefining economic and urban spaces in the era of globalization. Geogr Rev India 64(4):311–322
- Banerjee-Guha S (2006) Globalization, Uneven Development and the contemporary urban order: a geographical perspective. In: Basu R, Bhaduri S (eds) Society, development and environment. Progressive Publishers, Kolkata, pp 269–281
- Banerjee-Guha S (2011) Space, spatiality, human geography and social science: politics of the production of space. Trans J Inst Indian Geogr 33(1):3–22
- Banka N (2019) The battle to save Kolkata's crumbling heritage buildings. Retrieved 7 August 2019, from https://www.aljazeera.com/indepth/features/battle-save-kolkata-crumbling-heritage-buildings-190209212113999.html
- Berry BJL, Rees PH (1969) The factorial ecology of Calcutta. Am J Sociol 74(5):445-491
- Blechynden K (1905) Calcutta: past & present, (New Edition 1978 with a foreword by N. R. Roy). General Printers & Publishers Private Limited, Calcutta
- Bose NK (1964) Calcutta: a premature metropolis, in scientific American, Vol CCXIII, pp 90-102
- Bunting SW, Kundu N, Mukherjee M (2002) Renewable natural resource-use in livelihoods at the Calcutta Peri-urban Interface: literature review. Land-water Interface Production Systems in Peri-Urban Kolkata DFID-NRSP Project Working Paper. Stirling, Institute of Agriculture, U.K.
- Chaudhuri S (ed) (1990) Calcutta, the Living City, Vol. I: the Past; vol II: the present and the future, XV, 276pp. XVII, 365pp. Calcutta, etc.; Oxford University Press
- Chaudhuri A (2013) Amit Chaudhuri: my new perspective on Calcutta. The Guardian. Retrieved from https://www.theguardian.com/books/2013/feb/02/amit-chaudhuri-new-perspective-calcutta
- Chaudury P, Mukhopadhyay A (1975) Calcutta: people and empire—gleanings from old journals. India Book Exchange, Calcutta
- Chunder PC (1978) Foreword in Calcutta is by Sivaprasad Sammaddar, pub. by the corporation of Calcutta
- D'souza VS (1979) Socio-cultural Marginality: a theory of Urban Slums and poverty in India. Sociol Bull 28(1/2):9–24. Retrieved from https://www.jstor.org/stable/23619350
- Egoreichenko A (2018) Cities of the future: socio-cultural aspect of urban innovations, pp 1601–1609. https://doi.org/10.15405/epsbs.2018.12.02.171
- Fitzpatrick JP (1966) The importance of "community" in the process of immigrant assimilation. Int Migr Rev 1(1):5–16. https://doi.org/10.2307/3002231
- Francesca (2014) Urban development: issues, challenges, and ADB's approach. Retrieved 7 August 2019, from https://www.adb.org/themes/urban-development/issues
- Ghosh AK (1994) Urban development and environment. Geogr Rev India 56(3):6-12

- Ghosh AK (ed) (2005) A report on status of wetlands in KMC ward 101–141 part I & II. ENDEV— Society for Environment & Development, Kolkata
- Herzog J et al (2008) Discussion held on Wednesday. 17 September 2008, 10 AM at ETH Studio Basel. http://www.studio-basel.com/Projects/Kolkata.html. Accessed on 31 Dec 2009
- Kayserili A (2010) Carl Ortwin Sauer and cultural geography. 24, 177-190
- Keceli A, Kocaman S (2014) A comparative study of urban cultural landscape. Int J Acad Res Bus Soc Sci 4(6):430–439. https://doi.org/10.6007/IJARBSS/v4-i6/972
- Lambin EF, Meyfroidt P (2011) Global land use change, economic globalization, and the looming land scarcity. Proc Natl Acad Sci 108(9):3465–3472. https://doi.org/10.1073/pnas.1100480108
- Mitra A (1990a) Calcutta on the eve of her tercentenary. Abhinav publications, New Delhi
- Mitra M (1990b) Calcutta in the 20th century: an urban disaster. Asiatic Book Agency, Calcutta
- Mitra A (2009) Ganga, Kolkata and myself. In: Ganga Delta: development perspectives, lecture delivered in UGC-DRS Phase-I Seminar organized by the department of geography, CU, March 6–7
- Mukherjee KN (2003) Kolkata o Kalighater Itibritya: Oitihasik o Bhougalik Gabeshana Siddhanta. Inference of Research on History and Geography of Kolkata and Kalighat, Tulika Bhattacharyya, Kol-6
- Mukherjee S (2004) Fast forward on flyovers. The Telegraph (online edition). 27 August. http:// www.telegraphindia.com/1040827/asp/calcutta/story_3678779.asp. Accessed 15 May 2006
- Munsi SK (1975) Calcutta metropolitan explosion. Its nature and roots. Peoples Publishing House, New Delhi
- Munsi, SK (2010) Thikana Kolkata (Address Kolkata). Thema, Kolkata, 1st Published in 1974
- Nkadmin (2017) Is Kolkata still the cultural capital of India? Retrieved 6 August 2019, from Nkrealtorsblog website: https://www.nkrealtors.com/blog/kolkata-still-cultural-capital-india/
- Pannell S (2006) Reconciling nature and culture in a global context: lessons from the world Heritage List, James Cook University, Cairns. Page 63 vide http://en.wikipedia.org/wiki/Cul tural_landscape. Accessed on 28 Jan 2010
- Plumwood V (2006) The concept of a cultural landscape: nature, culture and agency in the land. Ethics Environ 11(2):115–150. Retrieved from https://www.jstor.org/stable/40339126
- Satpati LN (2010) Cultural images of urban locations: examples and experiences of Kolkata. Geogr Rev India 72(4):341–348
- Sauer CO (1925) The morphology of landscape. Univ Calif Publ Geogr 22:19-53
- Schein HR (1997) The place of landscape: a conceptual framework for interpreting an American scene. Ann Assoc Am Geogr, 660–680
- Sinha S (ed) (1972) Cultural profile of Calcutta. The Indian Anthropological Society, Calcutta
- Theroux P (2019) The Telegraph. Kolkata. Retrieved on 8 Nov 2019 from http://www.telegraph india.com/1091108/jsp/7days/story_11714064.jsp



Lakshminarayan Satpati obtained a Ph.D. degree in Geography from the University of Calcutta, Kolkata. He has presented more than 60 research papers and chaired sessions in national and international platforms, of which the 32nd IGU Conference in Cologne, Germany (2012); 8th IAG Conference in Paris, France (2013); and PRSCO-2019 of RSAI, Bangkok, are notable. Besides, he has been invited to deliver lectures in various faculty development programmes of UGC, ICSSR, DST, etc. He has to his credit more than 40 publications in the form of research papers and articles published in reputed national and international journals and books. His research and teaching interests include climatology, geomorphology, hydrology, environment, population & development, quantitative geography and curriculum development in geography. He has edited a book on Climate and Society-a Contemporary Perspective published by the University of Calcutta in 2015. Fourteen scholars have already obtained their Ph.D. degrees under his supervision. He is also mentor to two Postdoctoral Fellows in the Department of Geography at the University of Calcutta. He has successfully completed two UGC-sponsored research projects and organized three national workshops on Climate Science. Prof. Satpati is associated with a large number of academic and professional organizations of teachers, geographers and climate scientists of India. Currently he is the honorary Editor of UGC-recognized peer-reviewed biannual Indian Journal of Landscape Systems and Ecological Studies of Indian Institute of Landscape, Ecology and Ekistics, since 2017. He is now serving as the Professor and Director of UGC-Human Resource Development Centre, University of Calcutta in the substantive position.

Situating Animals in the Aesthetics of a Global City: Stray Cattle and Dairy Farmers in Delhi, India



Pratyusha Basu

Abstract Urban landscapes in India reflect contemporary economic imperatives through adopting the aesthetics of a 'global city' that can accommodate capital investment. Approaches to the aesthetics of urbanization can be further extended by focusing on how animals are accommodated into or displaced from cities seeking to become properly global. Using the case study of India's capital city, Delhi, and its stray cattle removal program, this chapter seeks to understand how the class-based aesthetics of contemporary urbanization shape the ability of animals to inhabit urban spaces, and concomitantly, the ability of social groups that depend on animal-based livelihoods to belong to the city. Mainly, this chapter argues that the stray cattle removal program has led to confinement being the only acceptable mode of being animal in Delhi. Alongside, people who depend on dairy farming for a living are pushed to the margins of the city. A 'global' urban esthetic thus associates animalbased livelihoods with 'dirt' and 'uncleanliness.' However, given that milk produced by small scale, informal dairy farms continues to be valued by urban consumers, dairy farmers cannot be completely removed from the city and exist at the margins of urbanization marking the urban-rural boundary. While the presence of dairy farmers and stray cattle in India's cities could point to an alternative way of being urban, it instead becomes an integral part of the process through which the aesthetics of urban landscapes entrench class differences and displace non-human urban subjects.

Keywords Urbanization \cdot Urban aesthetics \cdot Animal geographies \cdot Urban dairying \cdot Urban–rural intersections

1 Introduction

Contemporary processes of urbanization in Delhi reflect its economic stature and desirability as India's capital city and premier destination for global investment. Prominent outgrowths, including NOIDA and Gurgaon, have become models for real

P. Basu (🖂)

Department of Sociology and Anthropology, University of Texas-El Paso, Old Main 316, 500 W. University Avenue, El Paso, TX 79968, USA e-mail: pbasu@utep.edu

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_21

estate development and seek to be world class residential and commercial centers (e.g., Dupont 2011; Searle 2016). These glowing representations, however, have to be juxtaposed with the inequalities that accompany urbanization, including displacements of slum and rural populations and persistent disparities in access to urban services (e.g., Bhan 2016; Sheikh and Mandelkern 2014). Yet, whether the focus is on wealth or poverty, the city is being approached in terms of its human inhabitants, leaving out the presence of animals in cities. There remains a need then for studies that incorporate how urbanization is also changing human–animal relations in globalizing cities.

The aim of this chapter is to understand how urbanization and the globally derived aesthetics linked to it are reshaping cultural attitudes toward animals. Specifically, the chapter focuses on Delhi's efforts to remove stray cattle from its roads and shift dairy farmers to the urban fringe. While the acquisition of Delhi's agricultural land for urban development has been studied in terms of its economic and social consequences for specific neighborhoods and communities (e.g., Bentinck 2000a; Narain 2009), the stray cattle removal program becomes a unique case study since it depicts how displacement of animals also shapes rural to urban transformations. This chapter provides textual and ethnographic perspectives on such animal displacements by drawing on media representations which highlight resistance to cattle removal in a cattle-friendly country, a visit to a cow shelter where protection of animals is performed through the disciplining of animal mobilities, and interviews with residents of a dairy colony that exemplifies how urban boundary-making proceeds through the removal of animals.

The origins of Delhi's stray cattle removal program can be traced to 1997, when a non-governmental organization called Common Cause (2015) filed a Public Interest Litigation (PIL) in Delhi's High Court seeking the removal of stray cattle from Delhi's streets and, relatedly, the removal of unauthorized dairies (Delhi District Courts 2007). In the PIL, stray cattle were represented as dangerous animals, threatening hapless urban residents by attacking them. Dairy farmers were viewed as the main culprits in this situation since they allowed their cattle to roam-free (Dewan Verma 2005; Chamberlain 2008; Garg 2012; Adak 2016), but the Municipal Corporation of Delhi (MCD) was also held responsible for allowing this situation to remain unchecked. In its judgment on the PIL in 2002, the High Court directed the MCD to address the stray cattle menace on the grounds that Delhi was seeking to be a 'global city.' In the words of the Court: 'The capital city of Delhi should be a show window for the world. The stray cattle on the roads gives a wrong signal' (Delhi District Courts 2007). Delhi was already gearing up to host the 2010 Commonwealth Games, making it even more urgent for the city to exhibit its global credentials. However, in 2007, the High Court had to reiterate its 2002 judgment since the MCD's stray cattle removal program had allegedly been unable to quickly and efficiently remove stray cattle and illegal dairies (Delhi District Courts 2007), and stray cattle removal in Delhi remains an unsolved problem till the present (Garg 2019).

One major difficulty associated with stray cattle removal is the fact that Delhi's growth has required the incorporation of surrounding rural areas and associated livestock since the city is located in the heart of northern India's Green Revolution

region. A 2008 case which held the MCD responsible for an attack by a stray bull due to its failure to remove stray cattle was dismissed as follows:

Traditionally, Indians have always kept cattle, specially cows in their houses. The same was considered sacred and religious. The city of Delhi developed as a capital of the country and in planning thereof several pockets of villages interspersed the planned areas. The said villagers for long remained from being urbanized and the municipal laws did not extend to them. Thus, cattle continued to be kept in houses in these villages in the mid- of or abutting modern developed colonies of the city. (High Court of Delhi 2016: 19–20)

In this judgment, the removal of cattle becomes a delicate matter because the need to modernize the city and shed rural livelihoods has to be juxtaposed with a long tradition of co-residence of cattle and people. The above judgment is also noteworthy because of its sympathetic attitude toward urban cattle, which seems to go against the more strident note struck by the 2002 High Court judgment.

The legal wrangle over cattle in Delhi's urban spaces highlights the contradictory roles assigned to dairy animals in the production of urban space. To begin with, the campaign against stray dairy animals seeks to ensure that they are more effectively confined in cow shelters and relatedly confines people who depend on dairy animals for their livelihood to particular parts of the urban, in most cases in dairy colonies in fringe areas where the urban melds into the rural. Yet, urban areas also constitute areas of high demand for dairy products, and when this demand is for raw milk, then dairy animals and dairy farmers continue to remain connected to the city and in fact become key supports for urban growth and consumption (Bentinck 2000b). This need for both the removal of dairy animals and their continued presence has contributed to the intractability of the stray cattle debate. Moreover, religious attitudes toward cattle in India, partly reflected in bans on the slaughter and inter-state transfer of cows (Ghosh 2015), adds to the complexity of cattle removal programs and hence of producing animal-free urban spaces.

The next section (Sect. 2) outlines various conceptual approaches to humananimal relations and connects these to the study of urbanization as cultural process. Section 3 begins by situating the field sites of this study within the broader context of urban and rural villages and dairy animals in Delhi. Subsequently, three subsections present the main findings of this chapter: Sect. 3.1 analyzes newspaper reports on the public interest litigation related to stray cattle; Sect. 3.2 reflects on a conversation with the manager of a cow shelter in Najafgarh, southwest Delhi; and Sect. 3.3 utilizes interviews with residents of Bhalswa dairy colony in northwest Delhi. Overall, this chapter seeks to highlight how Delhi's urbanization is linked to changing cultural attitudes toward the removal of animals as well as the social groups that depend on them.

2 Conceptual Frameworks: Cultural Approaches to Animals and Urbanization

The study of human–animal relations is a relatively new approach to understanding the power-laden processes through which cultural landscapes are constructed (Wolch 2002; Elder et al. 2008; Johnston 2008; Urbanik 2012) and is part of a broader post-humanist turn in cultural geography (Castree and Nash 2004; Panelli 2010). Animals knit human and non-human natures into a coherently functioning ensemble by simultaneously occupying two distinctive positions, being both non-human others who are distinct from humans, and close partners who enable humans to connect to their environmental contexts (Hribal 2007). The value of examining cultural geographies through the lens of animals has been demonstrated, for instance, in the study of longer historical processes of agricultural development through domestication of animals (Zeuner 1963) and more recent practices of European colonialism (Anderson 2003), as well as how livelihood-related connections between specific social groups and animals is utilized to justify social marginalizations (e.g., Neo 2012).

The need to include animals in studies of urbanization can also be linked to calls for the interlinked study of urban and rural places. One prominent approach has been to question the understanding of the urban as a bounded place, easily distinguishable from the rural. Instead, it has been argued that urbanization should be viewed as a process through which capitalist economic and social relations entrench themselves across the whole of space as such (Harvey 1996; Brenner 2013). Urban and rural places, therefore, are produced through interlinked processes of growth and need not be analytically separated, even if their meanings are distinct in both official demarcations and common sense understandings. Another approach has interrogated the excessive focus on built environments in notions of the urban. This has drawn attention to the presence of nature in urban landscapes, whether in the form of abandoned buildings which shelter wild flora and fauna (Gandy 2013), or animals that lurk in the interstices and at the boundaries of human habitations (Lulka 2013; Doherty 2019). Thus, separations between urban and rural places, and human and non-human natures, can be considered part of a process of the production of differences, rather than indicative of already existing differences.

India becomes a useful vantage point for viewing urbanization from the perspective of animal geographies. Cattle, especially the distinctively humped Zebu, have long been central to India's economies, cultures, and religions (Lodrick 1992; Korom 2000). The utility of cattle as providers of food, manure, and traction has made them crucial to India's agricultural economies and such uses also characterize urbanizing areas. The 'sacred cow' debate (Harris 1966), on the possible origins of the taboo against the killing and eating of cows, has been a major framework for the cultural study of animal geographies in India. It has been argued that this prohibition reflects Hindu and Buddhist religious and spiritual values of non-violence. Another argument is that since the economic value of cows extends beyond milk, even unproductive cows are useful as manure providers, and cultural notions of cow protection are linked to these multiple economic uses (Dandekar 1969). However, cultural attitudes and practices are also ways of including and excluding specific social groups, so that taboos associated with cows work against those who depend on cattle for livelihoods and food (Robbins 1999; Chigateri 2008; Sathyamala 2018). Bans on inter-state transfer of cattle for purposes of slaughter (Ghosh 2015; Sarkar and Sarkar 2016) and newly imposed bans on use of cattle for beef (Bagri 2015) thus impinge on the livelihoods of particular caste and religious groups and especially the rural landless and urban poor among them. This chapter seeks to show how livelihoods based on dairy cattle, supposedly a permissible and valued form of livelihood, are being condemned in cities aspiring to be properly urban.

Debates over the presence of animals in cities are also linked to cultural ideals associated with the form and function of urban landscapes. While the study of the esthetic values associated with the urban has often focused on architectural styles and streetscapes (e.g., Williams 1954; Akkerman 2000; Frers 2007), animals become implicated in new approaches to urban planning as societies move away from rural lifestyles (e.g. Hansen 2014). A prominent theme in current studies of urbanizing India is the rise of a new urban esthetic connected to the rise of a new middle class. This new class seeks to control the appearance of urban landscapes to reflect middle class occupations and consumptions (Baviskar 2003; Véron 2006; Dupont 2011; Ghertner 2011; Read 2012). While the removal of slums has usually been studied as part of this new urban esthetic, removal of dairy cows can also be included within the same framework. In fact, the rise of land use zoning as an urban planning concept in the West has been shown to occur concomitantly with the rise of the notion of 'nuisances' attached to specific groups of people and their practices (Valverde 2011). These led to agricultural pursuits and livestock keeping being deemed out of place in the urban (Elder et al. 2008; Philo 1998). This chapter will show that one of the consequences of the new urban esthetic in Delhi is that urban residents who pursue crop and dairy-based livelihoods have been displaced to the urban fringe. In the process, the mixing of urban and rural land uses which may characterize a continually expanding urban area is constantly sought to be replaced with a clear separation between urban and rural land uses. Removal of animals from the city is part of this construction of urban landscapes through the exclusion of rural natures, a construction that becomes difficult in contexts where the rural continues to be a palpable presence.

Overall, this chapter seeks to draw from as well as contribute to the study of urban aesthetics and post-humanist cultural geographies through showing how stray cattle and urban dairy farmers in Delhi exemplify changing cultural notions regarding both animals as well as social groups that pursue animal-based livelihoods. The next section introduces Delhi in terms of its urban and rural components and sets the stage for subsequent analysis of media accounts and ethnographic interviews.

3 Findings: Dairy Animals in Urbanizing Delhi

The official designation for Delhi is the National Capital Territory (NCT), and this designation came into effect in 1991. Before that, Delhi was a Union Territory and comprised one district. In 1997, the NCT was divided into nine districts (Census of India 2011), with an additional two districts added in 2012. The NCT of Delhi has a unique status within India, since central, state, and local bodies are present within it. At the local level, the NCT has five administrative bodies: the Municipal Corporation of Delhi (MCD, Delhi Nagar Nigam in Hindi), which was divided into three corporations in 2012 (North, South, and East), the New Delhi Municipal Corporation (NDMC), and the Delhi Cantonment Board (DCB). Further, Delhi's continued expansion beyond the NCT has led to the designation of a larger National Capital Region (NCR), which includes the area of the NCT as well as surrounding districts from the states of Haryana, Uttar Pradesh, and Rajasthan. While the NCR is utilized for purposes of economic and social planning-for instance, to understand and cope with future patterns of urbanization-it does not have a formal governmental body associated with it. Delhi, thus, has a complex administrative structure reflecting its significance as the capital of India, links between Delhi and its surroundings, and continuing population growth and urbanization.

According to the 2011 Census of India, the NCT of Delhi was the second largest city in India in terms of population, and 97.50% of Delhi's population was classified as urban. In fact, Delhi was already majority urban at the turn of the twentieth century (52.76% urban in 1901) and has seen steady growth in its urban population since then (Government of NCT of Delhi 2019: 21). In terms of area, urbanization has been relatively less complete–in 1991, 46.21% of Delhi's total area of 1483 km² was classified as urban, and in 2011, this figure had increased to 75.09% (Government of NCT of Delhi 2019: 17). There are multiple forms of settlements within Delhi, and in 2000, only 23.7% of Delhi's total population resided in planned colonies which had relatively secure access to piped and treated water, sewage disposal, and electricity (Sheikh and Banda 2015: 1). The majority of the population lived in unauthorized or regularized slums or colonies (64.6%), and a small proportion lived in rural and urban villages (11.7%).

The relatively rural parts of Delhi are the southwest and northwest districts which report lower urban proportions than Delhi as a whole, and the case studies for this chapter, the Najafgarh cow shelter and the Bhalswa dairy colony (Fig. 1), are located in these districts, respectively. In 2011, 93.73% of the population of the southwest district was classified as urban, and the corresponding figure for the northwest district was 94.15% (Government of NCT of Delhi 2019: 28), with 51.1% of the NCT's rural population residing in the northwest district (Census of India 2011: 16). Moreover, of the 165 rural villages in Delhi, 66 villages were located in the northwest district, and 52 in the southwest district (Census of India 2011: 16). Thus, the notion of Delhi as urban has to be moderated with an acknowledgment of the presence of so-called villages within the metropolitan area. Alongside, the northwest district also had the largest number of census towns among the districts of Delhi, with 33 of Delhi's

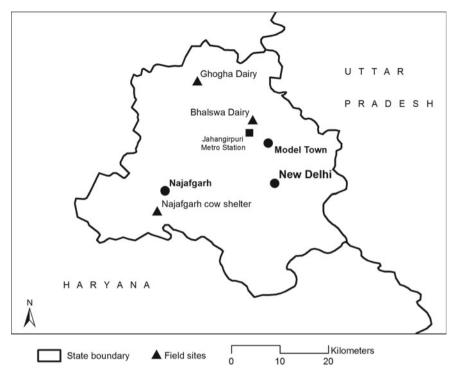


Fig. 1 Study sites in NCT of Delhi

110 Census Towns (CTs) located there (Census of India 2011: 12). The presence of Census Towns (places with urban characteristics but not administered as towns) again suggests the in-between nature of this district as both urban and rural. Table 1 shows the rural populations in the districts and sub-districts of the NCT of Delhi discussed in this chapter.

The rurality of Delhi also becomes visible in the presence of cattle and buffaloes, even though these numbers show a declining trend. Thus, there were 86,433 cattle and 162,142 buffaloes in the NCT of Delhi in 2012, and these had declined by 5.63% for cattle and 29.67% for buffaloes from the 2003 numbers (Government of NCT of Delhi 2019: 150). The continuing value attached to cattle, however, is exemplified by the 1994 Delhi Agricultural Cattle Preservation Act (PRS 1994) which bans slaughter of cattle, including cows, bulls, and bullocks, as well as transfer of cattle out of Delhi for slaughter. Thus, any inter-state transfer of cows from Delhi is approved only on the basis of evidence that cattle will not be slaughtered as a consequence of this transfer. Cattle removal is legally within the purview of government administration in Delhi, though similar protections are not extended to buffaloes.

A review of Delhi's 1994 Act has been demanded by the Peoples Union for Democratic Rights (PUDR 2016), a civil rights organization which is based in Delhi but works on causes across India. More specifically, the PUDR seeks 'removal of

District	Total pop	Rural pop	Density (persons per km ²)	Literacy rate (%)
Delhi	16,753,235	419,319	11,297	86.21
District: Northwest	3,656,539	213,950	8298	84.45
Sub-district: Model Town (Bhalswa dairy colony)	595,810	0		
Sub-district: Narela (proposed Ghogha dairy colony)	809,913	168,739		
District: Southwest	2,292,958	143,676	5445	88.28
Sub-district: Najafgarh (cow shelter)	1,365,152	143,676		

Table 1 Socio-demographic characteristics of study site districts

Sources: Census of India 2011

ban on possession, consumption, and transport [of beef], through repeal/amendment of the Act,' and '[that] violations under the Act [be treated] as civil wrongs, inviting proportionate penalties, instead of criminal offenses, with powers of imprisonment, search/seizure and denial of life and liberty' (PUDR 2016). The PUDR's larger concern is that the Act has become a pretext for attacks on religious minorities (Tiwari 2014; Varma 2015). While the PUDR does not specifically focus on the displacement of dairy farmers, the stray cattle removal program and the associated removal of unauthorized dairies functions within the context of the 1994 Act and thus would be affected by any amendment in the Act.

The next three subsections consider the stray cattle removal program through an analysis of textual and ethnographic data. Media reports utilized in Sect. 3.1 were obtained through a search of Lexis-Nexis database and include both newspapers within India and across the world. Field data analyzed in Sects. 3.2 and 3.3 were obtained in two phases. In the first phase between October–December 2010, I visited the Municipal Corporation of Delhi (MCD) office, the cow shelter in Najafgarh, and made a preliminary visit to Bhalswa dairy colony during which I conducted the first interview. In the second phase over September–October 2013, I revisited Bhalswa and gathered the rest of the interviews as well as further familiarized myself with the dairy colony and its surroundings.

3.1 Media Representations of Delhi's Stray Cattle Removal Program: The Resistance of Cattle Owners

Media reports identified two main kinds of problems associated with cattle removal. First, cattle catching teams were often thwarted in their duties as some neighborhoods, allegedly composed of residents who were owners of dairy cows, vehemently protested the removal of their cattle, making it difficult for cattle catching teams to complete their work (Kahn 2008). Small-scale dairy farms are important sources of food and income for the urban poor (Bayer 2000; Kudva 2009). As Kahn (2008) points out in the context of MCD's cow catching operations, one reason why stray cattle and illegal dairies are difficult to remove is because they are supported by consumers of milk.

The government classifies any cow wandering the streets as stray, but many of these animals are actually owned by unlicensed dairies. The dairy operators—and the slum dwellers who buy their cheap milk—often react violently when cattle catchers arrive.

The religious meanings of cows and the notion that cow removal disrupts everyday activities can also be found in media representations. As a *New York Times* report put it:

Far more dangerous than the cattle, according to the cowboys, are the people they encounter. The cow catchers have been involved in fistfights with drivers enraged that the cowboys have blocked traffic while trying to remove cows from a busy road. Religious Hindus, who sometimes feed the stray cattle found near temples, have on rare occasions been known to pelt cow catchers with stones. (Kahn 2008)

A chance encounter with an elderly man feeding a bullock near the MCD office provided me with one instance of how relationships with cattle continue to be maintained even in urban settings. This gentleman had brought food from home to feed cattle and mentioned that he was also a regular visitor of cow shelters. This emotional connection with cattle partly explains why cattle removal remains an uphill task.

A second problem was the issue of what to do with cattle once they were caught. The plaintiffs in the PIL had argued that cattle should immediately be taken to cow shelters and microchips inserted in them so that they could be identified if they became stray again. The MCD was seen as not doing this very efficiently (Sethi 2006; Indian Express 2013). An article in *The Hindu* reported:

Drawing attention to 'false claims' made by the Delhi Government, the Municipal Corporation of Delhi and the Delhi Jal Board in their status reports filed in the High Court, the NGO [Common Cause] highlighted their 'lackadaisical' attitude in managing stray cattle and the 'glaring discrepancies' in shifting the dairies/cow sheds, which continue to run across the city, to Ghogha Dairy Colony set up for shifting dairies from various zones in Delhi. (Jain 2014)

A *Los Angeles Times* report casts doubt on the cow shelters themselves, viewing them as part of the reason why stray cattle return to the streets.

The city had previously paid non-governmental groups to take care of the cattle in holding areas that were supposed to serve as refuges, where homeless bovines could have some comfort. To most of India's Hindu majority, cows deserve to be pampered. ... But, their handlers claimed that more than 20,000 of the captured strays died in just a year. Yadav [a member of a cow catching team] suspects that it was a ruse. He believes most of them were released into the streets in a scam to get more money from the government. (Watson 2005)

A difference in policies related to removal of stray cattle and buffaloes should be noted here. Stray buffaloes that were caught were fitted with microchips for tracking and auctioned in neighboring states, with new owners promising not to bring them back into Delhi. Cows, however, were sent to cow shelters within Delhi due to the ban on inter-state transfer of cows, though there are also efforts to find bona fide cow shelters in neighboring states to which stray cows could be transferred (Times of India 2004a).

Delhi's stray cattle removal program has, thus, brought to the fore the animals which inhabit the city, the people connected to these animals, and the difficulty of removing both animals and animal-based livelihoods from the city. Media reports have pounced on the remarkable occurrence of stray cattle removal programs in an India assumed to be uniformly cattle-friendly and have been eager to explore the failures of the program (e.g., Mynot 2003; Gentleman 2005; Kahn 2008). The MCD has been held responsible in some cases for any damages occurring due to stray cattle and was held liable in a 2006 case over the death of a street vendor due to fighting bulls (High Court of Delhi 2009), though not in a 2008 case in which a woman was attacked by a stray bull, while she was shopping (High Court of Delhi 2016; mentioned earlier). However, media reports do not refer to the connection between stray cattle removal and longer histories of urban expansion through displacement of dairy farmers in Delhi. In fact, negative attitudes toward urban dairy farmers is enshrined in official dairy development policy in India which, till economic liberalization in 1997, sought to promote rural dairy producers as suppliers for urban milk markets (Basu 2009: 61-64).

Common Cause (2015), the organization which filed the PIL on stray cattle, can be considered part of the rise of middle class politics in Delhi. The organization was founded in 1980 by a retired government official and has worked as a nongovernmental forum to challenge the irregularities in implementation of government policies. In the process, Common Cause has regularly utilized the judicial process, filing a myriad of PILs. Beginning with a focus on reforming irregularities in pensions to government employees, the organization has challenged governmental corruption, pollution of urban environments (including presence of unauthorized dairy colonies and animal slaughterhouses), and sought to strengthen the Right to Information (RTI) Act which enables citizens to access information on government agencies more responsive to the needs of citizens, especially citizens who are able to navigate legal avenues for redress of their claims.

In contrast to such middle class citizens are the dairy farmers who find themselves increasingly vilified in a context where milk production and processing is shifting from being a household activity to an industrial operation. Thus, even as media accounts are more prone to interpret resistance to stray cattle removal as an indicator of religious sentiments or a dairy farmer-led resistance, the class divisions revealed in support for and opposition to the program have not been examined. The interviews with dairy farmers that will be analyzed later make this class basis explicit. Before turning to those interviews, it is useful to consider stray cattle from the vantage point of a cow shelter.

3.2 Najafgarh Gosadan (Cow Shelter): Disciplining Stray Animals

Information on cow shelters (Hindi: *gosadans*) in Delhi was obtained through a visit to the MCD office in October 2010. A public relations officer, on being told of my research, provided me with a list which had been produced in response to questions raised at a 2008 MCD meeting (MCD 2008). Five gosadans were named in the list: three in Najafgarh (Najafgarh sub-district, southwest Delhi) and two in Bawana (Narela sub-district, northwest Delhi).

My visit began in a hired car with a driver, and since three of the shelters were in Najafgarh, that was chosen as the site to visit. A car was fortuitous since the Delhi metro rail has yet to reach Najafgarh. Even more pertinent, this sub-district was in the southwest of the NCT (Fig. 1) and could enable a comparison with the northeast of Delhi where the dairy colony site was located. The first cow shelter that the car stopped at was not one of the three on the MCD list. The driver, after some discussion with the people at this shelter, now seemed to have a better handle on his surroundings and turned the car off the main road. Quite suddenly, the city disappeared, and an unpaved village path led us to newly flowered mustard fields, in the middle of which a gated building was situated. This was the cow shelter, and its security guard, after some suspicious questioning, allowed me to enter, but not the car.

I made my way to an office where two men were sitting, and one of them identified himself as the manager of the gosadan. While I continued to be viewed with suspicion, the manager nevertheless proceeded to provide some details, seemingly persuaded that the list of gosadans I carried constituted some kind of official permission. This shelter was being operated by a religious organization, who also managed the shelter we had earlier stopped at on the main road. The land for this gosadan had been obtained from the village panchayat by the MCD. The manager told me to keep an important distinction in mind: I was at a *gosadan*, where only unproductive cows were maintained, not a *goshala*, where both productive and unproductive cows were held. Later, going over my field notes, I realized that the officer at the MCD had also emphasized this difference.

In this gosadan, there were currently 800 cows, and its maximum capacity was 2000. A vet visited the shelter every week, and in fact would soon be visiting that day. The shelter was provided Rs. 25 per cow per day, but the manager lamented that this was not sufficient, as I would be able to tell by the condition of the cows. The people of the village were reluctant to donate to this shelter, seeing it as a governmental rather than village-level entity. They also would not sell grass on credit to the shelter. At this point, I was asked if I wanted to see the cows. Eager to do so, I was disappointed when I was told that I could not take any photographs. The manager, however, insisted that he did not have anything to hide—the cattle were as well-fed as possible, so any shortcomings could not be attributed to the management of the gosadan. His concern was well-founded given constant newspaper reports which have criticized the conditions in which cows are being kept in gosadans (e.g., Pandit 2005; Singh and Shekhar 2015).

The cows were in a large fenced area and did not look cramped for space. Though they seemed undernourished, there was freshly cut, fragrant grass in a nearby shed. The manager mentioned that cow dung was sold to local villagers, so it seemed there were some linkages with the surrounding community. The manager had now relaxed and told me that people sometimes showed up at the shelter gate demanding the return of their cows. This brought to mind a study of urban dairying in Delhi by Bentinck (2000b: 13) which had pointed out that: 'Stray cows have not all been abandoned by their owners. ... most cows in the city are owned by people who milk them daily.' The ability of owners to trace their cows to the gosadan was what necessitated a wariness toward visitors. In fact, this is why, a gate had to be installed. Ironically, without its gate, the cattle shelter would be a less visible feature of this area.

The veterinary officer arrived at this point, and we returned to the office. He too was suspicious of my intent, suggesting that I did not have permission to be there. Pushing away my list from the MCD, he commented to the manager that I had merely downloaded this from the Internet. I contemplated defending myself but decided it may be more useful to be conciliatory. The manager looked uncomfortable and was probably glad at this point that he had not allowed me to use my camera. The vet pointed out that removal of stray cattle to *gosadans* should count as a rescue of them. Ingesting plastic from waste dumps was causing severe problems among cattle which the controlled environments of gosadans prevented (Mohan 2016). He also asked me to reflect on why stray cattle were being removed in this fashion. According to him, it was because the value of land was rising, and illegal dairies were taking up valuable space. He seemed, therefore, to view gosadans as simultaneously altruistic and profit-oriented.

It was time to leave, and the driver seemed to anticipate that I would ask if another shelter could be visited. No point in it, he offered, since according to him this experience proved that shelter managers would not talk to me. Before turning away to focus his attention on the road and journey back, he provided me with some reassurance. 'They [the religious organization] are good people,' he said. 'They will look after the cows.' It seems that he had read my visit as an expression of concern for the cows.

What was learned from this visit? First, in terms of cultures of cattle care, while cow shelters are often represented as impelled by the need to protect cattle (Kothari and Mishra n.d.), the availability of money for the maintenance of stray cows due to the stray cattle program had added a new stream of revenue for cow shelters. A form of capitalization of caring for cows, thus, has been installed.

Second, in terms of geographies of human–cattle relationships, the proper condition of cows seemed to be one of confinement. A cow shelter established this confinement under the plea of benevolence since it prevented cows from ingesting harmful plastic materials. The role of cattle in impeding traffic becomes another justification for confinement (Chitlangia 2012) and was also mentioned in the High Court judgment.

The menace of stray cattle is hazardous and causes traffic snarls. It affects the safety of human beings on the road. It has the potential to cause accidents. (Delhi District Courts 2007)

In contrast to this, another High Court judgment on the case seeking redress for attack by a bull opined that straying is natural to cattle, especially cattle in Delhi.

The cattle, just like humans cannot be kept confined to four walls and for their well-being required movement and was, thus, required to be let loose and when let loose did not confine itself to the boundaries of the village but naturally strayed into the nearby modern colonies. (High Court of Delhi 2016: 20)

Cow shelters, therefore, raise a number of questions. While shelters protect cows in a context where cows are revered and, hence, cannot be easily slaughtered, they also remove cows from relatively independent access to urban space, thus abrogating their right to the city. Moreover, the confinement of cows seems to mirror currently powerful urban attitudes toward the proper place of animals in cities and, by association, the proper place of social groups dependent on animals.

3.3 Bhalswa Dairy Colony: Animals at the Urban Fringe

The Bhalswa dairy colony (Fig. 1) is one of the few authorized urban dairy colonies in Delhi (Nath 2014). The Bhalswa-Jahangirpuri settlement was counted as a Census Town in the 2011 Census, being part of the wholly urbanized Model Town subdistrict (Table 1). However, it was listed as rural on the Delhi state government Web site (Government of NCT of Delhi 2013) revealing its mixed urban and rural nature. The experiences of Bhalswa's residents reveal the displacement of dairy cattle toward the urban fringe, thus pointing to the deliberate production of a clearly defined urban–rural boundary.

This section provides a closer look at urban dairying through interviews conducted with five residents of Bhalswa dairy colony. One of these interviews was conducted in December 2010, during the first phase of fieldwork as mentioned above, and the other four in a subsequent phase in September–October 2013. The interviews were semi-structured, and the first was documented through written field notes, and the other four were taped. All respondents were men, mostly older men, who had been or were currently engaged in dairy farming. Interviews were conducted at home; two in the presence of family, and, one a joint interview of two neighbors; except for one which was conducted in a public parking place where the dairy farmer-turned rickshaw driver plied his trade. All respondents owned buffaloes as their principal dairy animals. Interview questions included when and how the Bhalswa dairy colony was established, why the respondent and his family had moved to Bhalswa, what their experiences were of the dairy colony, how their dairy business had changed over time, and what future they saw for dairying in their family and in Bhalswa. A specific question was also asked about their knowledge and experiences of Delhi's stray cattle removal program.

My initial research plan was to focus on dairy farming in Ghogha village, designated as the site to which unauthorized dairies from the NCT should relocate (Times of India 2004b). However, during my visit to the MCD, when I had mentioned utilizing Ghogha as a field site, it was suggested to me that Bhalswa would be a better dairy colony to study. In December 2010, I made a preliminary visit to Bhalswa and Ghogha, again with a hired car and driver. There are three place names associated with Bhalswa: Bhalswa lake, Bhalswa village, and Bhalswa dairy. Bhalswa village and Bhalswa dairy are two separate entities, as community lands belonging to the former were used to establish the latter. Bhalswa lake is a dump for sewage, though it has also been cleaned up to become a place of leisure for urban residents, with a garden and boating facilities (Sinha 2009). As we reached the Bhalswa dairy area, I decided to stop at a house in front of which a few buffaloes were standing. Fortunately, the men working within were quite willing to talk about their buffaloes. In contrast, Ghogha dairy colony turned out to be empty-no people or buildings, though plots had been marked out and electric supply poles installed. The High Court had also noted problems associated with relocation to Ghogha, ranging from the slow allotment of plots to the lack of necessary infrastructure for dairy farmers, such as water and veterinary services (Jain 2014), and more recently, the plots have been encroached on by residential construction (Sharma 2019).

The next visit to Bhalswa was in September–October 2013. In this case, I alighted at Jahangirpuri metro station, the nearest metro rail station for Bhalswa (Fig. 1) and sought a three-wheeler rickshaw that would be willing to take me to Bhalswa dairy colony. I was very fortunate, as the rickshaw driver who agreed to help me, Mr. Tarlok Bedi (pseudonym) turned out to be a very useful research collaborator, helping me arrange and conduct interviews. He was familiar with the residents of Bhalswa, especially older residents who had been there when the dairy colony had first been established. Mr. Bedi began by showing me the rickshaw stand that served passengers whose destination was Bhalswa (his suggestion was that I should seek rickshaws for Bhalswa from here, rather than at Jahangirpuri metro), and one interview was conducted at that stand. We then visited Bhalswa to seek more respondents. Two more interviews were conducted over the next few days, and I also got a chance to become familiar with the various parts of Bhalswa, including its lake. The most nerve-wracking aspect of traveling to Bhalswa dairy was crossing the very busy multi-lane highway which separated it from the Jahangirpuri metro station. But, Mr. Bedi pointed to the connectivity that the highway enabled, and its ability to turn a small settlement at the border of Delhi into a part of the city itself.

The first question asked in the interviews was about the history of Bhalswa dairy, how and why it had come to be where it was. All interview respondents began their story of Bhalswa with Prime Minister Indira Gandhi's 'Emergency' rule of 1975–77. The declaration of Emergency was an attempt by the Congress party led by Indira Gandhi to continue ruling in the face of growing opposition. The removal of urban dairy farmers, however, can also be considered a continuation of the dairy policy implemented under Operation Flood in 1970 whereby rural producers were sought to be given exclusive rights to supply milk to urban India. The Delhi Milk Supply scheme lost governmental support in the process, as did the urban dairy farmers associated with it (Basu 2009: 61–64). However, urban dairying was not so easily dismissed, as evidenced by the High Court judgment of 2002 which had to mention that:

The Delhi Milk Scheme and Mother Dairy should take steps to increase their supply of milk to Delhi, and in doing so, an effort should be made to rope in the unorganized sector so that the distribution is done by the aforesaid two agencies after collecting milk from the villages on the periphery of Delhi or outside Delhi. This will discourage private parties from opening dairy farms in the city. (Delhi District Courts 2007)

The demand for milk in Delhi, therefore, seems to have continued to support an informal urban milk sector within the city.

The mention of the Emergency as the reason for the establishment of Bhalswa dairy immediately suggested that the dairy farmers had been forcibly displaced. I asked whether there had been any opposition to the removal of dairy farmers. One respondent, Manohar ji (pseudonym, interview conducted in October 2013), said that opposition was not possible because, '*Chhawani bana di thi police ne*' [the police had put up a military-style camp]. Any opposition was dampened due to this show of force. According to all the respondents, Bhalswa dairy plots were given on a no-cost lease, possibly for 99 years, so the Delhi government could take it back whenever it wished.

Another respondent, Arvind ji (pseudonym, interview conducted in September 2013 at the rickshaw stand), discussed how the benefits of resettlement were portrayed to the farmers.

Humein lobh diya gaya ke wahan acchi zameen hai. Yahan se gandagi hat jayegi, ... Yahan se hatke thoda door chale jaayenge to accha hai. Puri itni vyavastha bhi nahin thi ke bhains aa sake. Yahan zyada jagah di gayi, bhainson ke saath jagah di gayi, ... Yahan to koi nahin rehta tha, pura khali tha.

We were tempted that the land was good there [in Bhalswa]. The dirtiness existing where we were would be removed ... If we moved some distance away, things would be better. Here, there was no arrangement for keeping buffaloes. There [in Bhalswa] more land was given, land enough for buffaloes ... No one was staying in Bhalswa, it was empty.

The emptiness of Bhalswa struck me as strange—was the village not already existing here? I addressed this issue during the interview with the neighbors, Gordhan ji and Babu ji (pseudonyms, interviews conducted in October 2013). According to Gordhan ji, the inhabitants of Bhalswa did not object to losing land to the dairy colony, since it was not their land: '*Gaon ki charaagah zameen thi yeh, gram sabha zameen, faltu zameen, automatic sarkar ki zameen ho jaati hai.*' [this was the grazing land of the village, owned by the village council, land that was not being used, and it can 'automatically' be taken over by the government]. Thus, community land can be taken by the government for its own uses, and no one has to be compensated for it. The politics of land acquisition emerges in this response, both in terms of the loss of what may have been public grazing land, and the government's ability to disregard informal collective uses of the land.

There is another aspect to the land acquisition process for Bhalswa dairy in which nearby Jahangirpuri plays a role. According to Gordhan ji and Babu ji, the land that would eventually become Jahangirpuri was owned by zamindars [landlords]. It was this land that was taken over by the government to form jhuggi-jhopdi (JJ) colonies, or slum colonies, possibly a regularization of existing informal settlements, or a relocation of informal settlers from the center of the city to its periphery. The relocated dairy farmers were offered house plots in Jahangirpuri and dairy plots in Bhalswa. After a short stay, they chose to leave Jahangirpuri and move their residences to Bhalswa. At that time, they did not know that land prices in Jahangirpuri would escalate as it became a metro hub. The dairy farmers have, thus, seen the value of the land that could have been theirs rise many-fold in the intervening years.

At this point, it is useful to consider the personal trajectories which led the respondents to Bhalswa. My first interview (in December 2010), in the house with the buffaloes in front of it, was with the family of Mehmood Khan ji (pseudonym). They were not permanent residents of Bhalswa but were renting their plot from what they called a 'Gujjar family' (Gujjar being a prominent agricultural and pastoral caste in Delhi and its surroundings) for the last 10-12 years. They themselves lived in a village near Meerut in Uttar Pradesh state and traveled to Delhi to sell their buffaloes. Mehmood Khan ji also traced the establishment of Bhalswa to the Emergency. The other three respondents had been relocated to Bhalswa from the Model Town area, but also had longer histories of migration into Delhi. Arvind ji was originally from Bulandshahr in Uttar Pradesh state, and Gordhan ji and Babu ji were from a village in Gurugram (Haryana state). Manohar ji's biography provided another interesting twist to the story of relocation. He had arrived in Delhi from Rohtak (Haryana) to work as a mechanic and had turned to keeping buffaloes in order to have milk for home consumption. His herd of buffaloes, however, continued to grow over time, and soon, he was in the dairy business. Manohar ji differed from Arvind ji in actually owning the land on which he had been keeping cattle prior to his relocation, while Arvind ji had occupied available land and did not have title. Manohar ji had moved to Bhaslwa in 1986, not 1976–78 as was more common among other Bhalswa residents. In these personal histories of migration, the role of animals in urbanization takes on at least two meanings. First, rural migrants turn to animal keeping in order to augment their urban livelihoods, using rural skills to fit better into the city. Second, those keeping animals in the city are subsequently removed from it as the city seeks to become more properly urban.

When the relocated dairy farmers arrived in Bhalswa, they found it to be completely without any services: no electricity, running water, or roads. In the words of Manohar ji,

Jis time hum yahan aaye the ... poori ubar-khabar zameen thi ye. Sadken jo thi woh naam maatar, eeton se banaayi hui thi. Na yahaan paani tha, na bijli thi, bijli-paani yahan koi nahin tha.

When we arrived here ... the land was not developed. The roads were in name only, built with burnt bricks. There was no water, no electricity, there was nothing.

These descriptions made Mr. Bedi respond that '*Biyaban jangal mein unko fek diya gaya*' ['they were dumped in an uninhabited wilderness']. As time went by, local political leaders, who might also have been responsible for the relocation in the first place, began to invest in services for Bhalswa. Roads were built, a branch canal arrived, and pipes were laid. But, water supply continues to be a major problem in Bhalswa, both due to its quality and because the lack of water pressure prevents

flow in taps inside homes. They do have electricity, but due to recent privatization of electric power supply have faced rising electricity costs.

Dairy farming is currently on the wane in Bhalswa. Initially, the relocated farmers continued to supply milk to old customers in Model Town and gained new customers in the nearby colony of Rohini. But as Bhalswa continued to become residential, the open spaces in which dairy animals could graze became scarce. Currently, animal feed has to be bought from the market which makes it more expensive to maintain buffaloes. Bentinck (2000b: 12) has noted that the rise of animal grazing along roadsides, and the possible designation of such animals as stray, is partly due to the loss of village common lands on which they can be grazed. The cost of buffaloes has also risen. The norm is to buy a buffalo in milk and sell the animal when it becomes unproductive. This buying has become more difficult as buffaloes now cost Rs. 60–80,000, an amount for which farmers often have to take loans. According to Gordhan ji, he had a herd of 60–100 buffaloes, but now keeps only 20–30. In fact, he would earn more by renting out the room in which he currently houses the buffaloes than he does from the buffaloes themselves.

All respondents, except Mehmood Khan ji, were of the opinion that dairy farming was coming to an end in Bhalswa. Two of them mentioned that only 20% of the original dairy farmers were left in Bhalswa, and these only because the farmer was older and did not want to change, family members preferred to drink pure buffalo milk, or because the household had no other livelihood options. All respondents were unanimous that the new generation would not continue with dairy farming. Arvind ji who had himself left the dairy business about 10 years ago and now earned his livelihood by driving a rickshaw listed the negative aspects of dairy farming:

Na hum bachchon ko padha sakte hain usmein dhang se, bhainson ka kaam hai; na unki achche se shaadi kar sakte hain, kyonki gandagi rehti hai jaanwaron se. Ab itni jagah to hai nahin ke hum wahi bhains rakhe, wahi apna rehna-sehna rakhen. Aap jaise padhe likhe thode jaake usmein gandgi mein rahege.

Neither can we educate our children properly if we make them work with buffaloes, nor can we get them married well as dirtiness is associated with animals. Now we do not have so much space that we can both keep animals and reside here. Educated people like you will not live in dirtiness.

Mr. Bedi interjected that the dairy business was dying out because, '*Tabdali to hoti hai madam. Tarakki sabhi chahte hai.*' ['change does happen, madam. Everyone wants progress.'].

Manohar ji expressed the same sentiments about the demise of dairying as a new generation moved to urban education and occupations.

Pratyusha: Aage jaake aap ko kya lagta hai, aapke bachche vagerah bhi ...

Manohar ji: ... Assi percent hai jo dhandha badal chuka hai. Jo aane waali generation hai, woh ye kaam nahin kar pave. Kuchh logon ne ab chhod diya, kuchh aage chalke chhod denge.

Pratyusha: To aapko kya lagta hai, aage jaake kya hone wala hai yahan pe?

Manohar ji: Aage hone wala ye hai ki, apne bachchon ko padhao-likhao, honhar banao, naukri dilao, apna roti-guzara chalao.

Pratyusha: To ye bhainson ka dhandha nahin ...

Manohar ji: Bhainson ka dhandha to automatic khatam ho jayega, jab koi karniya hi nahin rahege ...

Pratyusha: So what will happen ahead, your children ... ?

Manohar ji: ... 80 percent of people have changed their occupation [from dairying]. The coming generation will not be able to do this work. Some people have already left, and some will leave in the future.

Pratyusha: So what do you think will happen here in the future?

Manohar ji: What will happen in the future is that [you] educate your children, make them capable, get them a job, earn your living.

Pratyusha: So not this business of buffaloes ... ?

Manohar ji: Buffalo keeping will automatically end, when no one is there to do this work ...

The city in the future, therefore, seems to have no place for dairy animals, and their removal brought about by generational change as the possibility of supporting a family on small-scale dairying wanes.

What is also noteworthy in the comments made by respondents is the constant reference to 'gandagi' [being dirty], a condition associated with the keeping of animals. 'Gandagi' is mentioned as the reason for the removal of dairy animals from the city—as Manohar ji put it, 'rich' people do not like to live next to dairy animals.

Jo raees aadmi hain, unko inmein se badboo aati hai; gand failate hai, badboo hai inmein, inko door kar do.

Rich people associate them [dairy animals] with foul odors, consider them to be spreading dirtiness, and they want dairy animals to be kept far away.

Arvind ji said the same thing in reference to educated people—education, therefore, seemingly a process of developing a dislike for the presence of animals and waste. Yet, gobar, or dung, continues to be a very useful by-product of animal keeping. Next to Bhalswa lake, and under the highway overpass, we saw a row of gobar cakes drying in the sun. Mehmood Khan ji mentioned that gobar was given away by his family for free to women in the neighborhood. Manohar ji talked about demand for gobar in the market, with people buying it to use for cooking and heating, and nurseries and farm houses buying it as manure. The 'dirt' of animals, therefore, continues to be valuable in urban Delhi.

The so-called gandagi [uncleanliness] of dairy farmers is challenged by respondents through highlighting the purity of the milk which dairy farmers provide urban residents, contrasting their buffalo milk with the milk provided in plastic packets by retailers, such as Mother Dairy. Gordhan ji and Babu ji lamented that people no longer knew how to appreciate milk quality and preferred milk that is mixed with water. In Gordhan ji's words, '*Beimaani grahak khud seekhata hai*' ['the customers teach us to be dishonest']. With milk adulteration being a matter of concern in Delhi, as well as more broadly in India (e.g., Mukherjee 1996; Reuters 2012; Dutt 2019), it is interesting to hear dairy farmers mention that urban consumers prefer diluted [with water] milk, since they do not have an understanding of what constitutes good quality milk. Manohar ji noted the irony of people seeking to remove dairy animals, yet wanting access to milk: '*Peene ko doodh hamare ghar de jao*, ... *Doodh ke bina to kuchh bhi nahin banta*' ['people still want us to supply milk to their homes, ... Because without milk you cannot make anything']. As Bentinck's (2000b: 13) study of urban dairying points out, 'Although the city's cows contribute a small part of the total supply of milk to the city, it is not unimportant [since] there is often a shortage of supply.'

Respondents had heard about the stray cattle removal program. As Mehmood Khan ji pointed out, stray animals were usually cows, as buffaloes were too expensive to leave unattended. But then, buffaloes, if caught, were returned to their owners via auction; cows were not returned to their owners under any circumstances. For Gordhan ji and Babu ji, the stray cattle removal program was a ploy to collect cows for gosadans, so that they could gain access to donations. They also alleged that these cows often never reached gosadans, being resold at cheap prices to dairy farmers by corrupt officials. Similarly, grass cut from city parks were ostensibly for gosadans, but again were illegally sold to dairy farmers. Both respondents emphasized that while stray animals could be removed from the city, this rule did not apply to the dairy colonies. But, dairy farmers were harassed if they sought to graze animals at the side of roads outside the colony. Manohar ji mentioned another kind of harassment within the dairy colony as the Municipal Corporation of Delhi (MCD) reprimanded people who were improving their houses in Bhalswa, asking them to build only tin sheds for animals. But, how could families live in tin sheds, and why would they live away from their dairy animals? Manohar ji's dwelling, similar to many others in his neighborhood, is a two-story, concrete structure, and buffaloes are housed in the lower story and on the street outside the house.

To return to the public interest litigation (PIL) seeking removal of stray cattle, it is worth noting that dairy farmers in colonies such as Bhalswa are probably not completely safe from eviction. As the High Court judgment criticizing the MCD for failure to remove stray cattle mentions:

A careful reading of the order passed by this Court would show that all dairies including those operating from the dairy colonies established some 25 years ago were meant to be relocated on the outskirts of Delhi and not just those that were operating unauthorizedly. This Court had clearly noted that dairies were operating illegally and without any licenses. The essence of the order passed by this Court was that running of dairies in an urbanized city like Delhi puts considerable stress on its civic amenities. The existence of dairies in the midof a growing metropolis was considered incomprehensible. (Delhi District Courts 2007)

Thus, dairy farming itself is represented as incompatible with urbanization, in effect rendering all urban dairies illegal.

From Model Town to Bhalswa to Ghogha, dairy farmers are constantly pushed toward the periphery of the city, suggesting that the presence of dairy animals marks the urban boundary of Delhi. It is possible that dairy animals are being used to render the urban fringe inhabitable as they provide livelihoods to relocated residents. In sum, urbanization cannot proceed without dairy animals marking the march into new areas of urban settlement.

4 Conclusion: Combining Animal and Cultural Geographies

The demand for animal-free urban spaces in Delhi is one instance of the rise of a new urban esthetic in India, and similar to histories of urbanization in the West, the objective is to erase the presence of rural livelihoods through removal of animals and the social groups that depend on them. In the process, the right of animals to roam the city is now replaced by captivity as being the proper condition for animals. The constraints on public use of spaces by poor and homeless populations (Mitchell 2005) is, thus, extended to animals. This new urban esthetic is described by Bhalswa's residents as being one that associates animals with 'dirt' and 'uncleanliness.' This can also be linked to global values since cities display themselves as corporate-friendly and attractive to foreign investment through mimicking Western urban landscapes, which do not include stray animals within them. More recently, the rise of cow vigilantism in India (Human Rights Watch 2019) becomes another form of removal of animals from public spaces. Similar to the stray cattle removal program, cow vigilantism reveals how attacks on animal-based livelihoods become attacks on specific social groups (in the case of vigilantism, religious minorities; in the case of stray cattle removal, urban dairy farmers). Moreover, both stray cattle removal with the aim of becoming a global city and mob violence seeking to impose cattle-related religious values ultimately lead to the confinement of cattle in shelters.

Three conclusions about how Delhi's urbanization intersects with the presence of animals can be drawn from the sources analyzed here. First, in terms of media accounts, the attempt to remove cattle from public spaces is deemed astonishing in reputedly cattle-friendly India, making the reported failure of the program seem less astonishing. In the process, a cultural discourse about the religious value of cows is privileged over a focus on new class identities and their role in reshaping the city. This chapter has instead argued that current initiatives to remove cattle from urban spaces indicate both how religious values are open to being transformed, in the case of Delhi led by a new middle class urban esthetic, as well as how such values persist as stray cows are confined in shelters. Second, cow shelters provide an illustration of how the negative connotations of being stray animals, and hence needing removal, are replaced by positive notions of the need to protect cows once they are properly confined. The ability of stray cattle to navigate urban spaces is, therefore, sought to be curtailed, and this becomes another example of the exclusions that characterize access to and experiences of urban space. Third, dairy farmers in Delhi provide vivid accounts of changing cultures of cattle keeping and milk production in contexts of urbanization. Their experiences of displacement provide an insight into the continually shifting nature of the urban–rural boundary. In fact, dairying itself undergoes a change in terms of its relationship to urbanization over time: initially enabling informal livelihoods in the urban economy, and then becoming an impediment to being fully urban.

Small-scale urban dairy farmers have always been part of Delhi's urban spaces, and of cities across India. The stray cattle removal program has called into question this co-existence of milk-producing animals and human consumers. Under the guise of controlling threats to human safety posed by stray cattle as well as protecting cattle from feeding on waste materials in streets, informal food and livelihood production options are being rooted out and banished. However, to the extent that small-scale dairy farmers are sought to be relocated to the fringes of the city, the problem of urban dairying is displaced but not destroyed. Through cultural approaches to animal geographies, this chapter has sought to illuminate how human–animal relations shape urbanization and are in turn reshaped by it.

Acknowledgements Funding for fieldwork on which this chapter is based was provided by a Senior Short-term Fellowship from the American Institute of Indian Studies in 2009–2010. Preliminary versions of this study were presented at the twelfth International Asian Urbanization Conference (Varanasi, December 2013), the International Geographical Congress (Cologne, August 2012), and the Annual Meeting of the Association of American Geographers (Seattle, April 2011). I thank the interview respondents and all those who helped me conduct fieldwork in Delhi. I also thank the editors of this felicitation volume for inviting me to submit a chapter and providing valuable comments which helped in revising this chapter.

References

- Adak V (2016) Holy cow, unholy practice: illegal dairies use gaumata as cash cows. Mail Today, 9 Aug. http://indiatoday.in/story/holy-cow-unholy-practice-illegal-dairies-use-gaumataas-cash-crops/1/735655.html. Accessed 16 Jul 2019
- Akkerman A (2000) Harmonies of urban design and discords of city-form: urban aesthetics in the rise of Western civilization. J Urban Des 5(3):267–290
- Anderson K (2003) White natures: Sydney's Royal Agricultural Show in post-humanist perspective. T I Brit Geogr 28(4):422–441
- Bagri N (2015) Indian state bans possession and sale of beef. New York Times, 3 Mar. http://www.nytimes.com/2015/03/04/world/asia/indian-state-passes-ban-on-beef-champi oned-by-right-wing-hindus.html. Accessed 16 Jul 2019
- Basu P (2009) Villages, women, and the success of dairy cooperatives in India: making place for rural development. Cambria Press, Amherst, NY
- Baviskar A (2003) Between violence and desire: space, power and identity in the making of metropolitan Delhi. Int Soc Sci J 55(175):89–98
- Bayer A (2000) Living with livestock in town. Urban Agric Mag 1(1). http://www.ruaf.org/sites/ default/files/Learning%20to%20live%20with%20livestock%20in%20town.pdf. Accessed 16 Jul 2019
- Bentinck J (2000a) Unruly urbanisation on Delhi's fringe: changing patterns of land use and livelihood. Dissertation, University of Groningen. https://www.rug.nl/research/portal/files/33207432/ thesis.pdf. Accessed 16 Jul 2019

- Bentinck J (2000b) The stray-cattle controversy in Delhi. Urban Agric Mag 1(2):12– 13. http://www.ruaf.org/sites/default/files/The%20stray-cattle%20controversy%20in%20Delhi. pdf. Accessed 16 Jul 2019
- Bhan G (2016) In the public's interest: evictions, citizenship, and inequality in contemporary Delhi. University of Georgia Press, Athens
- Brenner N (2013) Theses on urbanization. Publ Cult 25(1):86-114
- Castree N, Nash C (2004) Mapping posthumanism: an exchange. Environ Plan A 36(8):1341-1363
- Census of India (2011) NCT of Delhi: district census handbook of all the nine districts. Delhi: Directorate of Census Operations. http://www.censusindia.gov.in/2011census/dchb/0700_PART_B_D CHB_0700_NCT%20OF%20DELHI.pdf. Accessed 16 Jul 2019
- Chamberlain G (2008) Judges order Delhi to get sacred cows off the street. Guardian, 20 Sep. http:// www.theguardian.com/world/2008/sep/21/india.religion. Accessed 16 Jul 2019
- Chigateri S (2008) 'Glory to the cow:' cultural difference and social justice in the food hierarchy in India. S Asia 31(1):10–35
- Chitlangia R (2012) Stray cows clog south Delhi roads. Times of India, 5 Aug. http://timesofin dia.indiatimes.com/city/delhi/Stray-cows-clog-south-Delhi-roads/articleshow/15357671.cms. Accessed 16 Jul 2019
- Common Cause (2015) Home. https://www.commoncause.in/. Accessed 16 Jul 2019
- Dandekar V (1969) India's sacred cattle and cultural ecology. Econ Polit Weekly 4(39):1559, 1561– 1566
- Delhi District Courts (2007) Menace of stray cattle. W.P.(C) 3791/2000. https://www.common cause.in/uploadimage/case/1438402995WP%203791%20of%202000%20Date%2031-May-2007.pdf. Accessed 16 Jul 2019
- Dewan Verma G (2005) Stray cattle case intervention draft. Master Plan Implementation Support Group, New Delhi. http://architexturez.net/doc/az-cf-22616. Accessed 16 Jul 2019
- Doherty J (2019) Filthy flourishing: para-sites, animal infrastructure, and the waste frontier in Kampala. Curr Anthropol. https://doi.org/10.1086/702868Accessed16Jul2019
- Dupont V (2011) The dream of Delhi as a global city. Int J Urban Regional 35(3):533–554
- Dutt A (2019) Milk tops list of unsafe food items in Delhi: report. Hindustan Times, May 17. https://www.hindustantimes.com/delhi-news/milk-tops-list-of-unsafe-food-items-indelhi-report/story-AHsK2Q1Y6BAj20Farg5XJJ.html. Accessed 16 Jul 2019
- Elder G, Wolch J, Emel J (2008) Le pratique sauvage: race, place, and the human-animal divide. In: Wolch J, Emel J (ed) Animal geographies: place, politics, and identity in the nature-culture borderlands. Verso, London, pp 72–90
- Frers L (ed) (2007) Encountering urban places: visual and material performances in the city. Routledge, London
- Gandy M (2013) Marginalia: aesthetics, ecology, and urban wastelands. Ann Assoc Am Geogr $103(6){:}1301{-}1316$
- Garg A (2012) Check stray cattle, illegal dairies: HC. Times of India, 11 May. http://timesofin dia.indiatimes.com/city/delhi/Check-stray-cattle-illegal-dairies-HC/articleshow/13089048.cms. Accessed 16 Jul 2019
- Garg A (2019) Fix problem of stray cattle: HC to Delhi government. Times of India, 3 Jul. https://timesofindia.indiatimes.com/city/delhi/fix-problem-of-stray-cattle-hc-to-delhi-govt/ articleshow/70210176.cms. Accessed 16 Jul 2019
- Gentleman A (2005) Delhi given one week to clear away sacred cows. Guardian, 30 Apr. http:// www.theguardian.com/world/2005/may/01/india.ameliagentleman. Accessed 16 Jul 2019
- Ghertner D (2011) Rule by aesthetics: world-class city making in Delhi. In: Roy A, Ong A (eds) Worlding cities: Asian experiments and the art of being global. Blackwell, Oxford, pp 279–306
- Ghosh A (2015) How different states in India treat beef eating. HuffPost India, 3 Mar. http://www. huffingtonpost.in/2015/03/03/beef-ban-maharashtra_n_6790006.html. Accessed 16 Jul 2019
- Government of NCT of Delhi (2013) List of villages. Department of Revenue. http://revenue.delhi. gov.in/wps/wcm/connect/doit_revenue/Revenue/Home/Organization+Setup/List+of+villages% 2811+District+Wise%29. Accessed 16 Jul 2019

- Government of NCT of Delhi (2019) Economic survey of Delhi, 2014–2015. Planning Department. http://delhiplanning.nic.in/content/economic-survey-delhi-2014-15. Accessed 16 Jul 2019
- Hansen P (2014) Hokkaido's frontiers: blurred embodiments, shared affects and the evolution of dairy farming's animal-human-machine. Crit Anthropol 34(1):48–72
- Harris M (1966) The cultural ecology of India's sacred cattle. Curr Anthropol 7(1):191–201 Harvey D (1996) Cities or urbanization? City 1(1–2):38–61
- High Court of Delhi (2016) W.P.(C) 5769/2008. http://www.legallyindia.com/images/micro/res% 20ipsa%20loquitur.pdf. Accessed 16 Jul 2019
- High Court of Delhi (2009) W.P.(C) 13771/2006. http://www.delhicourts.nic.in/Jul09/SHAKUN TALA%20VS.%20GOVT%20OF%20NCT%20OF%20DELHI.pdf. Accessed 16 Jul 2019
- Hribal J (2007) Animals, agency, and class: writing the history of animals from below. Hum Ecol Rev 14(1):101–112
- Human Rights Watch (2019) Violent cow protection in India. https://www.hrw.org/report/2019/02/ 18/violent-cow-protection-india/vigilante-groups-attack-minorities. Accessed 28 Oct 2019
- Indian Express (2013) 500 stray cattle to be sent to Delhi cow sheds. 12 Apr. http://archive.ind ianexpress.com/news/500-stray-cattle-to-be-sent-to-delhi-cow-sheds/1101282/. Accessed 16 Jul 2019
- Jain A (2014) NGO moves HC for inquiry into stray cattle problem in Delhi. Hindu, 28 Feb. http://www.thehindu.com/todays-chapter/tp-national/tp-newdelhi/ngo-moves-hc-for-inq uiry-into-stray-cattle-problem-in-delhi/article5734860.ece. Accessed 16 Jul 2019
- Johnston C (2008) Beyond the clearing: towards a dwelt animal geography. Prog Hum Geog $32(5){:}633{-}649$
- Kahn J (2008) Urban cowboys struggle with India's sacred strays. New York Times, 4 Nov. http:// www.nytimes.com/2008/11/05/world/asia/05india.html?_r=0. Accessed 16 Jul 2019
- Korom F (2000) Holy cow! the apotheosis of Zebu, or why the cow is sacred in Hinduism. Asian Folklore Stud 59(2):181–203
- Kothari B, Mishra N (nd) Gaushalas, gosadans, pinjarapoles, pasture land and fodder development. Department of Animal Husbandry, Dairying and Fisheries. http://dahd.nic.in/related-links/chapte r-vi. Accessed 16 Jul 2019
- Kudva N (2009) The everyday and the episodic: the spatial and political impacts of urban informality. Environ Plann A 41(7):1614–1628
- Lodrick D (1992) Man and animals in India: some geographical perspectives. Nat Geogr J India 38:9–26
- Lulka D (2013) The posthuman city: San Diego's dead animal removal program. Urban Geogr 34(8):1119–1143
- MCD (Municipal Corporation of Delhi) (2008) Questions presented by Mr. Subhash Arya during Corporation meeting on Monday, 28 July 2008 (Somwar; dinank 28 July 2008 ko hone waali Nigam ki sabha ke liye Shri Subhash Arya dwara prastoot alp-kalik prashna). Personal Communication Oct 2010
- Mitchell D (2005) The S.U.V. model of citizenship: floating bubbles, buffer zones, and the rise of the "purely atomic" individual. Polit Geogr 24(1):77–100
- Mohan V (2016) Non-implementation of plastic waste rules chokes cows to torturous death in India. Times of India, 9 Aug. http://timesofindia.indiatimes.com/home/environment/florafauna/Non-implementation-of-plastic-waste-rules-chokes-cows-to-torturous-death-in-India/art icleshow/53605855.cms. Accessed 16 Jul 2019
- Mynot A (2003) Hard times for holy cows. BBC News, 30 Sep. http://news.bbc.co.uk/2/hi/south_ asia/3152508.stm. Accessed 16 Jul 2019
- Mukherjee A (1996) Milk of human deceit. Outlook, 29 May. https://www.outlookindia.com/mag azine/story/milk-of-human-deceit/201444. Accessed 16 Jul 2019
- Narain V (2009) Growing city, shrinking hinterland: land acquisition, transition and conflict in peri-urban Gurgaon, India. Environ Urban 21(2):501–512

- Nath D (2014) Over a thousand illegal dairies in Delhi. The Hindu, 11 May. http://www.thehindu. com/news/cities/Delhi/over-a-thousand-illegal-dairies-in-delhi/article5997887.ece. Accessed 16 Jul 2019
- Neo H (2012) 'They hate pigs, Chinese farmers...everything!' beastly racialization in multiethnic Malaysia. Antipode 44(3):950–970
- Pandit A (2005) Cows wasting away in govt's gosadans. Times of India, 26 Nov. http://timeso findia.indiatimes.com/city/delhi/Cows-wasting-away-in-govts-gosadans/articleshow/121117 9.cms. Accessed 16 Jul 2019
- Panelli R (2010) More-than-human social geographies: posthuman and other possibilities. Prog Hum Geog 34:79–87
- Philo C (1998) Animals, geography, and the city: notes on inclusions and exclusions. In: Wolch J, Emel J (eds) Animal geographies: place, politics, and identity in the nature-culture borderlands. Verso, London, pp 51–70
- PRS (1994) The Delhi Agricultural Cattle Preservation Act, 1994. https://indiacode.nic.in/bitstr eam/123456789/6095/1/dacp_act%2C1994.pdf. Accessed 16 Jul 2019
- PUDR (People's Union for Democratic Rights) (2016) Memorandum regarding review of the Delhi Agricultural Cattle Preservation Act, 1994 (Delhi Act No. 7 of 1994). https://pudr.org/ memorandum-regarding-review-delhi-agricultural-cattle-preservation-act-1994-delhi-act-no-7-1994. Accessed 16 Jul 2019
- Read C (2012) A place in the city: narratives of 'emplacement' in a Delhi resettlement. Ethnography 13(1):87–101
- Reuters (2012) Most milk in India contaminated or diluted. Jan 10. https://www.reuters.com/art icle/us-india-milk-idUSTRE80919O20120110. Accessed 16 Jul 2019
- Robbins P (1999) Meat matters: cultural politics along the commodity chain in India. Ecumene 6:399–423
- Sarkar R, Sarkar A (2016) Sacred slaughter: an analysis of historical, communal, and constitutional aspects of beef bans in India. Polit Relig Ideol 17(4):329–351
- Sathyamala C (2018) Meat-eating in India: whose food, whose politics, and whose rights? Pol Futures Educ. https://doi.org/10.1177/1478210318780553Accessed16Jul2019
- Searle L (2016) Landscapes of accumulation: real estate and the neoliberal imagination in contemporary India. University of Chicago Press
- Sethi A (2006) Capital confusion. Frontline 23(3):11–24 Feb. http://www.frontline.in/static/html/ fl2303/stories/20060224002504500.htm. Accessed 16 Jul 2019
- Sharma V (2019) Delhi: corporation acts as houses come up on dairy plots. Times of India, 30 Jan. https://timesofindia.indiatimes.com/city/delhi/corpn-acts-as-houses-come-up-on-dairyplots/articleshow/67763261.cms. Accessed 16 Jul 2019
- Sheikh S, Banda S (2015) Categorisation of settlement in Delhi. Centre for Policy Research. http://www.cprindia.org/sites/default/files/policy-briefs/Categorisation-of-Settlement-in-Delhi. pdf. Accessed 16 Jul 2019
- Sheikh S, Mandelkern B (2014) The Delhi development authority: accumulation without development. Centre for Policy Research. http://www.cprindia.org/research/reports/delhi-developmentauthority-accumulation-without-development. Accessed 16 Jul 2019
- Singh D, Shekhar S (2015) 5 government shelters, but little care for cows. Mail Today, 2 Nov. https:// www.thefreelibrary.com/5+govt+shelters,+but+little+care+for+cows.-a0433367771. Accessed 16 Jul 2019
- Sinha N (2009) Bhalaswa: once there was a lake. Indian Express, 11 Aug. http://archive.indianexp ress.com/news/bhalswa-once-there-was-a-lake/500404/. Accessed 16 Jul 2019
- Times of India (2004a). No more cow-ering stray cattle in city. 26 May. http://timesofindia.indiat imes.com/city/delhi/No-more-cow-ering-stray-cattle-in-city/articleshow/698783.cms. Accessed 16 Jul 2019
- Times of India (2004b) Dairy colony proposed in North Delhi. 31 Aug. http://timesofindia.indiat imes.com/city/delhi/Dairy-colony-proposed-in-north-Delhi/articleshow/832997.cms. Accessed 16 Jul 2019

- Tiwari S (2014) Mob torches PCR van after truck with carcasses found. Indian Express, 14 Jun. http://indianexpress.com/article/cities/delhi/mob-torches-pcr-van-after-truck-with-car casses-found/. Accessed 16 Jul 2019
- Urbanik J (2012) Placing animals: an introduction to the geography of human-animal relations. Rowman and Littlefield, Lanham, MD
- Valverde M (2011) Seeing like a city: the dialectic of modern and premodern ways of seeing in urban governance. Law Soc Rev 45(2):277–312
- Varma S (2015) Save-cow cost: industry bleeds, farmers suffer & exports tank. Times of India, 17 Nov. http://timesofindia.indiatimes.com/india/Save-cow-cost-Industry-bleeds-farmers-sufferand-exports-tank/articleshow/49810574.cms. Accessed 16 Jul 2019
- Véron R (2006) Remaking urban environments: the political ecology of air pollution in Delhi. Environ Plann A 38(11):2093–2109
- Watson P (2005) Delhi tries to corral its cattle. Los Angeles Times, 23 Sep. http://articles.latimes. com/2005/sep/23/world/fg-cowchips23. Accessed 16 Jul 2019
- Williams S (1954) Urban aesthetics: an approach to the study of the aesthetic characteristics of cities. Town Plann Rev 25(2):95–113

Wolch J (2002) Anima Urbis. Prog Hum Geog 25(6):721-742

Zeuner F (1963) A history of domesticated animals. Harper and Row, New York



Pratyusha Basu is an Associate Professor of Geography in the Department of Sociology and Anthropology, and Director of the Asian Studies Program at the University of Texas at El Paso (UTEP), USA. Her primary research interests are rural development, gender inequalities, rural-urban intersections, and urban environments. She has conducted field research in India and Kenya, and her research has most recently been funded by the American Institute of Indian Studies and the Fulbright Program. Her articles have been published in a variety of journals, including the Annals of the Association of American Geographers, Professional Geographer, International Journal of Agricultural Sustainability, Environmental Research Letters, International Journal of Environmental Research and Public Health. and Women's Studies International Forum. She has also written a book on gender and cooperative dairying in India, and coedited a journal special issue on the Green Revolution which was reprinted as a book. Pratyusha is currently on the editorial board of Agri-Gender: Journal of Gender, Agriculture, and Food Security.

Urban Sanitation in Indian Cities: Reflections from Varanasi



Arun K. Singh

Abstract Urban sanitation for a common man is considered as the collection, treatment and disposal of solid and liquid waste including human excreta. However, it is a much complex phenomena and takes into account all about the management of garbage services, systems, technology and attitudes in an urban environment. It affects everyone in the society irrespective of their socio-economic status. Hence, it is the time to understand urban sanitation not merely as a platitude but as a business, opportunity and civic and administrative necessity. Adequate sanitation is a basic human right, a contributory factor to the poverty cycle adversely affecting overall productive forces, and much more than an inconvenience that costs lives, dignity and productivity. In pre-independent India, Mahatma Gandhi was a great advocate of sanitation. After Independence, water supply and sanitation became the national agenda since the first five-year plan. However, sanitation, particularly in urban India, has remained the poor cousin to urban water supply both on paper and practice. With increasing levels of urbanization, rapid spatial expansion of cities, and increased amount of domestic water supply the quantity of grey/wastewater has been increasing with the passage of time. NIUA (National Institute of Urban Affairs (2005) Status of water supply, sanitation and solid waste management in urban areas. Ministry of Urban Development, Government of India, New Delhi) indicates that only 59% of the wastewater generated is collected by the sewerage system, and only 21% is treated before disposal. With this backdrop, the paper intends to highlight the state of urban sanitation at macro level and highlights the existing grassroot level realities of availability of toilets and bathrooms within and outside houses and the existing sewerage system at micro level taking Varanasi as a case study. The work is based on primary data collected from twelve sample municipal wards through a set of questionnaires, and supported by other techniques like informal discussion FGD, PRA and observation technique. Secondary sources of data include documents of ULBs, relevant government reports/ documents and study reports/research articles.

A. K. Singh (🖂)

Geography Unit Mahila Mahavidyalay, Banaras Hindu University Varanasi, Varanasi, Uttar Pradesh 221005, India e-mail: aksingh.mmv@bhu.ac.in

[©] Springer Nature Singapore Pte Ltd. 2022

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_22

Keywords Urban sanitation • Human rights • Poverty cycle • Wastewater • FGD • PRA

1 Introduction

Historically, India is known as the country of villages but the population composition of the country for the last two decades (1991–2011) has changed significantly. During this period the overall population increased by 43% as against 32% increase in rural population and 75% increase in urban population. The last census data also revealed that the annual exponential growth rate of urban population is 2.76% which is higher than the rural population growth rate. More surprising is that the number of towns in the last ten years (2001–2011) has increased from 5161 to 7935 an addition of 2774 new towns (2530 census towns and 244 statutory towns). This demographic trend shows that India is urbanizing increasingly in terms of absolute urban population and the identification of India as a land of villages is likely to be falsified. Such a trend has raised the issues of access to basic amenities like water supply and sanitation and any urban planners and policy makers are likely to face these challenges. Due to the disparity in the provisions of services and an exclusive approach rather than inclusive approach, the urban poor are deprived of essential facilities and services of water, sanitation and clean environment (Table 1).

In India about 78% of the urban population has access to safe drinking water but only about 38% of the urban population has access to sanitation services (Census of India 2001). The census 2011 data shows that 18.6% households in urban India do not have toilet facilities and have to go for open defecation (12.6%) or using public toilets (6%). 32.7% urban households use toilets with piped sewer systems and 38.2% use septic tanks.

Adequate sanitation is a basic human right. Its lack is linked with other burdens of inequity experienced by marginalized urban households, deepening the poverty cycle and adversely affecting overall productive forces. In India, 1600 children die every day before reaching the age of five,¹ 24% of girls drop out of school² and more than 30% of marginalized women are violently assaulted every year as the

Population	1991	2001	2011	Addition	Addition in %
India total	846.4	1028.7	1210.2	363.8	43
Rural	630.6	742.6	833.1	202.5	32
Urban	215.8	286.1	377.1	161.3	75
Level of urbanization (%)	25.49	27.81	31.16	-	5.67

Table 1 India's population growth (1991–2011)

Source Provisional population table, Census of India (2011)

¹ Water.org.

² Annual Status of Education Report (ASER), 2011.

lack of basic sanitation forces them to travel long distances to meet their needs.³ Above all, lack of sanitation is not a symptom of poverty but a major contributing factor to it. Inadequate sanitation is much more than just an inconvenience. It costs lives, dignity and productivity. Poor sanitation means dying children, uneducated girls, vulnerable women, unhealthy living conditions and ultimately unproductive and poor population. The lack of sanitation increases living costs, decreases spend on education and nutrition, lowers income earning potential, and threatens safety and welfare. This is especially true for urban India. Current urban infrastructure is abysmally short of requirement to sustain prosperous cities.

Indian cities are not only increasing in number, they are also expanding geographically. Census data suggest that slum population has tripled in the last three decades, intensifying the strain on already insufficient urban resources. Slums are typically overcrowded, lack basic services and facilities, and hence are unhygienic and unsafe. A recent survey by the Municipal Corporation of Mumbai reveals that there is not a single toilet in nearly 200 Mumbai slums, compelling a million slum dwellers to defecate into overflowing drains, filthy dump yards and railway tracks. Similar issues across urban India cause over 50 million men, women and children to defecate in the open every day. Sanitation in urban areas in general and in slums in particular is a complex and pressing issue. Existing unhygienic standards, crowded conditions and poor sanitation contribute to frequent and rapid outbreaks of disease. Lack of access to healthcare facilities compounds health problems. This negatively impacts the entire socio-economic fabric and affects gender parity, education and livelihoods in general and making slum populations even more vulnerable (Fig. 1).

2 Sanitation and Society

2.1 Sanitation and Health

Children often use open space near the settlement or open gutters near their houses as defecation ground. Such open spaces are also used by them for playing purposes. Regular exposure to and direct contact with faecal matter and drinking contaminated water induces transmission of fatal diseases such as diarrhoea, parasitic infections and worm infections, killing people, especially children. The cost of fighting with these diseases drains family finances and denies them resources for other development objectives such as education and nutrition. Furthermore, according to a survey by UNICEF, decreasing immunity suffered by children in their early years as a result of sanitation-linked diseases significantly hampers their cognitive development, with a lifelong impact on their growth and progress.⁴

³ UN Women and Jagori Survey Data, 2010.

⁴ UNICEF India, Water, Environment and Sanitation.

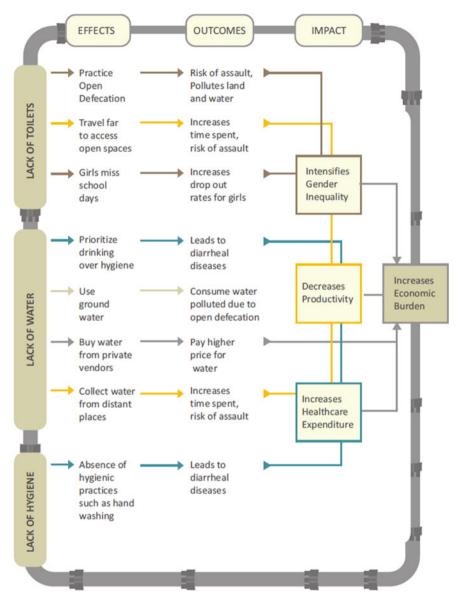


Fig. 1 Sanitation-poverty nexus. Source www.dasra.org

2.2 Sanitation and Women

A large segment of women in India starts her daily routine with a strategy to go for natural call. Without proper water supply and toilets within their houses, and unable to defecate in the open space during the day due to lack of privacy and for fear of harassment, they have to wait and find a secluded spot to defecate. This practice increases the chances of urinary tract infections, respiratory tract infection, chronic constipation, and psychological stress. Further, travelling long distances to access public facilities makes them potentially vulnerable to physical and sexual assault. A United Nations survey suggests that it is not uncommon for girls and women in such conditions to be mentally harassed, physically assaulted and culminating into rape incident.

2.3 Sanitation and Education

Lack of sanitation is detrimental not only to women's health and their dignity but also to their education. Girls are reluctant to attend school, and parents are disinclined to send them, if there are no safe and secure toilets for them in school premises. Forty percent of schools in India do not have a common functional toilet.⁵ Many girls are forced to miss class during their menstrual cycle, and eventually one in four girls drop out simply because there are no facilities which they can safely access. Even in communities where toilets exist, they are not properly used because of substandard construction, poor maintenance, scarcity of water and electricity and safety.

2.4 Sanitation and Productivity

Illnesses caused by lack of sanitation compel adults, especially women, to take care of ailing members of the household. They either forego productive labour or risk their own health to fully realize their productive potential. Also, where clean, safe facilities are not available at/near home, the time taken to walk to facilities reduces time at work, entrenching income poverty.⁶ The economic deprivation of the urban poor increases manifold when healthcare expenses and the cost of lost potential due to sickness arising from inadequate sanitation is added.

Underlying each of these issues is the extreme lack of awareness about the impact of inadequate sanitation. With little knowledge of how sanitation is linked to health and productivity and misconceptions about the high costs of building a toilet, marginalized households are unwilling to invest in sanitation.

On the other hand, urban local bodies such as city municipalities are unmindful of the harmful effects not only on the poor but on society as a whole, resulting in low priority for the issue at both the household and city level. Even when there is latent demand for facilities among the poor, they often lack the political voice needed to claim their basic right to sanitation. Tackling the problem of inadequate sanitation

⁵ Annual Status of Education Report (ASER), 2011.

⁶ WSSCC, Don't Waste a Good Investment.

not only requires building infrastructure but creating greater awareness of the issue, its magnitude and its real costs not just to poor people, but to societies as a whole.

The rationale for sanitation investments is clear—for every US\$1 spent on sanitation at least US\$9 is saved in health, education and economic development.⁷ This happens to be the single greatest return on investment of any development intervention. Investing in sanitation has the potential to greatly enhance other development outcomes; yet this sector in India remains largely neglected.

3 Sanitation: Retrospect and Prospect

The notion of indoor sanitation dates back to circa 2800 BCE and the earliest records of indoor plumbing is reported from the sites of Indus Valley Civilization, i.e. northwest India and southeast Pakistan. The record of sanitary facilities available in subsequent periods of India's history is scantier but the archaeological record shows that personal toilets were used in pre-colonial times by selected royals and remaining mass practiced open defecation in accordance with the prevailing social norms. The contemporary notion of sanitation was introduced only in the colonial era and was, like water supply, limited to those areas where the British colonizers lived. But wherever there were specific sub castes of so-called untouchables, whose sole occupation was the cleaning of sanitary facilities and the removal of faeces from household toilets to dump sites outside the immediate settlement, colonial authorities tapped them into the existing social system to make use of their services (Ramaswamy, 2005). In the pre-Independent India, thinker like Mahatma Gandhi⁸ said "Cleanliness is next to godliness". He further added we can no more gain God's blessing with an unclean body than with an unclean mind. A clean body cannot reside in an unclean city. In this context, he also taught us to take lesson from west and evolve our own method of municipal sanitation:

The one thing which we can and must learn from the West is the science of municipal sanitation. The peoples of the West have evolved a science of corporate sanitation and hygiene from which we have much to learn. We must modify western methods of sanitation to suit our requirements.⁹

Further in one of his writings Gandhiji said:

If I were a taxpayer within the jurisdiction of a local board or a municipality, I would refuse to pay a single pie by way of additional taxation and advise others to do likewise unless the money we pay is returned four-fold. Those who enter local boards and municipalities as representatives go there not to seek honour or to indulge in mutual rivalries, but to render a service of love and that does not depend upon money. Ours is pauper country. If our municipal councillors are imbued with a real spirit of service, they will convert themselves into unpaid sweepers, bhangis and road-makers, and take pride in doing so. They will invite

⁷ Water Aid, The State of the World's Toilets, 2007.

⁸ Young India, 19–11–1925.

⁹ Young India, 26–12–1924.

their fellow-councillor, who may not have come on the Congress ticket, to join them and if they have faith in themselves and their mission, their example will not fail to evoke response. This means that a municipal councillor has to be a whole timer. He should have no axe of his own to grind. The next step would be asked to make their contribution to municipal activities. A regular register should be maintained. Those who are too poor to make any money contribution but are able-bodied and physically fit can be asked to give their free labour.¹⁰

Thus, he advocated for resistance in paying the tax in case of non-provision of municipal services. He also talked about people's participation and commitment of councillors (people's representatives) in maintaining urban sanitation. After Independence, water supply and sanitation were added to India's national agenda during its first five-year plan period. However, sanitation, particularly in urban India, has remained a neglected subject till 1979 and relatively negligible investment was made within the sector. Since 1980, "The International Drinking Water Supply and Sanitation Decade" the government substantially increased its financial commitment to the sector, but mainly to rural sanitation and urban sanitation remained the poor cousin to urban water supply both on paper and practice. One reason seems to be that while water is recognized as a "public good", safe sanitation has not yet been given the same status in spite of the fact that investing in sanitation has the potential to greatly enhance other development outcomes, thus affecting the entire socio-economic system.

The year 2007 is considered as a landmark in urban water and sanitation sector when it got significant emphasis, as part of a strong urban reform agenda and was reflected in the provisions of Jawaharlal Nehru National Urban Renewal Mission (JnNURM) and the Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT). A comprehensive policy framework for sanitation provision emerged in 2008, when the National Urban Sanitation Policy (NUSP) was launched to guide the provision of urban sanitation in the country. This accorded separate national recognition to urban sanitation and directed states and cities for planning and implementing measures for improving urban sanitation in a targeted manner. Preparation of the city sanitation plan is one of the major tasks of municipal authorities under the NUSP (2008). Another landmark in urban sanitation is the launch of the Rajiv Awas Yojana scheme in 2012, aiming to create a slum-free India during the Twelfth Plan period (2012–17) by providing basic civic and social services, and decent shelter, to every Indian. The scheme includes bringing all existing slums, notified and non-notified, within the formal system of settlement so that they can secure the same level of basic amenities as other city dwellers (Table 2).

¹⁰ Harijan Feb. 1939.

Year	Milestones
1951	Water supply and sanitation added to the national agenda. Sanitation not accorded any importance and barely mentioned under water supply
1980–81	Integrated low-cost sanitation scheme for urban areas to convert dry latrines to pour flush
1987	National water policy drafted and recognized access to water as basic right
1993	74th CAA brought water and sanitation provision under the urban local bodies jurisdiction. Accelerated urban water supply programme (AUWSP) initiated to provide water to towns
1994	Mega-city scheme launched for five metro cities
1999	Urban water supply and sanitation exclusively came under the ministry of urban development, under overall guidance for planning and coordination of the ministry of water resources
2000	Valmiki Ambedkar Awas Yojana considered sanitation as part of housing
2002	National Water Policy (NWP) amended. Shift in focus: priority to providing drinking water to humans and animals Emphasis over urban water supply and sanitation
2005	JNNURM launched. Provision to develop water and sanitation related infrastructure
2008	National urban sanitation policy launched. Service level benchmarking framework initiated
2010	Study conducted in 423 cities and ranking made on the basis of sanitation performance. Clean city award introduced
2012	Rajiv Awas Yojana launched to create slum-free cities

 Table 2
 Water supply and sanitation in independent India

4 Status on Wastewater/Sewage Generation: A Macro Analysis

Urban sanitation has a broad connotation and takes into account drainage and disposal of wastewater, removal of excreta and disposal of garbage. It has always been linked with water supply because a large amount of water is required for sewerage, cleaning toilet structures and for personal post-defecation cleansing. Almost 80% of the water supplied for domestic use, comes out as wastewater (CPCB 2009) which in most of the cases is untreated and either sinks into the ground as a potential pollutant or is discharged into the natural drainage system causing pollution in downstream areas. Municipal sewage is "waste (mostly liquid) originating from a community; may be composed of domestic wastewaters and/or industrial discharges" (CPCB 2009). Average wastewater of 586 L/day/household is generated (Latha et al. 2005) 68% of which being grey water which could be of significant value for non-drinking purposes and can reduce freshwater demand by 10–25%. Many urban centres with sewerage systems do not have wastewater treatment plants. Under such circumstances discharge of untreated sewage into water bodies pollutes the limited water sources near urban centres (Kamyotra and Bhardwaj 2011). The findings of the National

Institute of Urban Affairs (NIUA) study (2005) indicate that, on an average, only 59% of the wastewater generated is collected by the sewerage system and only 31.5% has treatment capacity. Study conducted on 498 class I cities and 410 class II towns also reveal that sewerage treatment capacity of these two categories of towns are only 32% and 7%, respectively. Remaining water is likely to contaminate surface and ground water on a daily basis. The study also reveals that the coverage of population by the sewerage system is partial (45%). This could be either because the sewerage pipelines do not cover the entire city or that people have not yet been connected to the system. Urban Infrastructure report (2011) reveals that:

- 4861 out of the 5161 cities/towns (Census 2001) in India do not have even a partial sewerage network.
- Almost 50% of households in metropolitan cities like Bangalore and Hyderabad do not have sewerage connections.
- About 18% of urban households do not have access to any form of toilets facility and defecate in the open.
- Less than 20% of the road network is covered by storm water drains.
- Only 21% of the wastewater generated is treated, compared with 57% in South Africa.
- Of the 79 sewage treatment plants under state ownership reviewed in 2007, 46 were operating under very poor conditions (Urban Infrastructure Report 2011).

The challenge of sanitation in Indian cities is acute. With very poor sewerage networks, a large number of urban poor still depend on public toilets. Many public toilets have no water supply while the outlets of many others with water supply are not connected to the city's sewerage system. The National Urban Sanitation Policy (2008) has laid down the framework for addressing the challenge of city sanitation emphasizing the need for spreading awareness about sanitation through an integrated city-wide approach, assigning institutional responsibilities and with due regard for demand and supply considerations, with special focus on the urban poor. Ministry of Urban Development conducted a nationwide study in 2010 on 423 class one cities and the scoring was done on three parameters (output related indicators-50; process related indicators-30 and outcome related indicators-20) for categorizing the cities and accordingly on the basis of score a particular colour (red below 34; black between 34 and 66; blue between 67 and 90 and green above 90) was given to each city. Surprisingly no city was found to be "healthy" and "clean". The Municipal Corporations of Chandigarh, Mysore, Surat and New Delhi Municipal Council were the only four ULBs that fared relatively better. On the basis of the result of this study, another 229 cities needing considerable improvements and remaining 190 cities (including Varanasi with a score of 27.084) were on the brink of public health and environmental "emergency" and needing immediate remedial action.

5 The State of Sewerage and Sanitation in the Study Area with Focus on Varanasi City

5.1 City Profile

Varanasi (25° 20'N. Lat. and 83° 00'E. Long.), a metropolitan city of India, is the biggest urban centre of Eastern Uttar Pradesh. Traditionally called Banaras, known as the Cultural Capital, Heritage city of India and one of the oldest living cities of the world, records a continuous settlement history dating back to more than 3000 years. However, Present city of Varanasi has grown mostly during the early eighteenth century. Varanasi shows a constant increase in the population with varying rate of increase from decade to decade. In the last seven decades, the population has grown almost six fold, with an increase in population from 207,650 in 1931 to 1,202,443 in 2001 acquiring the status of metropolitan city (population above 10 lakhs) in 1991. Although the increase in population has remained constant the growth rate has fluctuated in several decades. The city has grown but only slowly when compared to other large cities. In 1961, it ranked 12th among the large cities of India. In subsequent decades, its rank came down to 15th in 1971, 18th in 1981, 22nd in 1991, 23rd in 2001, and 32nd in 2011. Since 1991, the growth rate has declined considerably indicating the fact that urban renewal may be the need of the hour. The Varanasi Urban Agglomeration covers an area of 112.26 sq km and 14.35 lakh population (2011) and consists of seven urban sub-units of which Varanasi Municipal Corporation with 79.79 sq km (71%) and 12 lakh population (83.7%) is the largest unit. Varanasi Nagar Nigam is divided into five zones, fourteen sanitary wards and 90 municipal wards for the purpose of water supply, sewerage, solid waste disposal, street lighting and other municipal services. Water supply and sewage system is maintained by UP Jal Nigam. Varanasi Jal Sansthan is the nodal agency for water supply. The situation and coverage of the sewerage network in Varanasi city is very low with 400 km of network and 30% of the geographical coverage catering primarily to the old city, comprising mainly of the Ghat area. Entire Trans Varuna area and nearly 50% part of Cis - Varuna area is un-sewered. Total sewage generated in the city is 240 mld of which only 90mld is treated in Sewage Treatment Plants (STPs) and the remaining 150 mld is directly discharged into River Ganga and Varuna through open drains. There are three Sewerage Treatment Plants (STPs) Dinapur, Bhagwanpur and Diesel Locomotive Works (DLW) STP with capacity of 80 mld, 9.8 mld and 12 mld, respectively. Dinapur and Bhagwanpur STPs are under direct control of UP Jal Nigam for operation and maintenance purposes, whereas DLW is operated and maintained by railway authority (CDP 2006) (Fig. 2).

State of sanitation is directly linked to improvement of health status and the lack of sanitation is a universal problem particularly when it comes to vulnerable groups like women, children and socially economically disadvantaged groups of people living in slums. It is worthwhile to note that the proportion of people having access to sanitation in urban areas is considerably greater than the rural counterparts, but the problems are more exacerbated in slums. Urban sanitation is perceived as being important

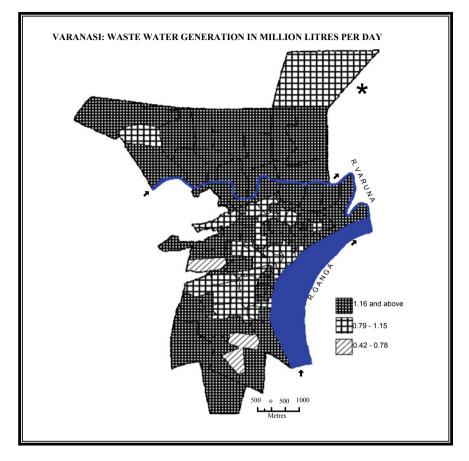


Fig. 2 Ward wise wastewater generation in Varanasi

because of the health and decency factor. In the case of slums, it is observed that sanitation facilities are the worst and in pathetic condition. A comprehensive view of the sanitary facilities as well as current sewerage system in the slums of Varanasi is shown in Table 3.

As per data collected during the survey for the city of Varanasi, it was found that 12% of the households have access to storm water drainage while 52% have access to underground sewer lines and 1% of the households connected to digester. Even though 65% of the households in the slums have some form of drainage and sewerage facility, still 35% of the households are not connected to a sewerage system. Due to absence of an established system, the grey water and wastewater from houses are directly dumped into the open Nallah or nearby open drains along with solid waste, making it overloaded and choked resulting in water logging in the slums areas. In respect to connectivity of slums with the city-wide sewerage system, only 24% of slums are fully connected to the city-wide sewerage system while 44% of slums

Connection to city-wide sew	-wide sewerage	/erage system								
Status	Fully connected			Partially connected	ted		Not connected			
No. of Slums	51			92			66			
	Toilet facility used by household	sed by house	hold							
Type of toilets	Public toilet			Shared toilet			Private toilet			Open defecation
	Septic/flush	Service Pit		Septic/flush Service Pit	Service		Septic/flush Service	Service	Pit	
No. Of HH	2797	813	690	690 3375	184	594	594 41,435	4828	4730 18,807	18,807

Table 3 State of sanitation in the slums of Varanasi

Source RAY primary survey, 2011

are partially connected. There is a shortage of the system where 32% slums are not connected. Access to toilets/latrines is one of the basic necessities, and is an indicator used for measuring the quality of life. In the Indian context, three different types of toilets are usually used, viz., pit, service latrine and septic tank/flush. Three different ways of access to toilets were considered, viz., own toilets, shared toilets and public toilets. Due to the lack of access to these facilities, the practice of open defecation is widespread. About 65% of the slum households have access to their own latrine with septic tank/flush type of toilets. An alarming share of about 24% slum households practice open defecation which leads to an unhygienic environment and health related problems. Even though 76% of the households have access to some form of toilet, it is believed the existing toilet system is considered to be of primitive stage with no proper maintenance and lacks general hygienic condition, further deteriorating the environment.

5.2 Issues Raised in Varanasi City Sanitation Plan

The Govt. of India launched a country-wide National Urban Sanitation Policy on November 12, 2008 with an objective to call upon individual states to draft their own strategies taking into account specific requirements. These strategies are a part of the City Sanitation Plan. The NUSP defines the city sanitation plan as- "A comprehensive document which details out the short, medium- and long-term plans for the issues related to governance, technical, financial, capacity building, awareness and pro-poor interventions to ensure 100% access to safe sanitation". The City Sanitation Plan for Varanasi has been prepared by CEPT University Ahmedabad with support from GIZ-ASEM. It has been designed to address the special nature of the city after detailed stakeholders consultation, governmental, non-governmental and the various other city and area level organizations. It is directive in nature, suggesting the various possible interventions and principles to achieve city sanitation in a comprehensive way. Various technological, management and institutional options have been examined, which will facilitate the urban local body to adopt specific strategies and projects best suited to their situation. It has identified the various sanitation related key issues of Varanasi.

Public toilets in the city are inadequate and under-maintained. The urban poor lack access to toilets. The cumulative result is open defecation being practiced rampantly in the city affecting the health and environment. In Varanasi, 15% of the households do not have access to toilets and resorts to open defecation. User charges for the community toilets allow access to five members as against the average household size of 7.2. Primary surveys indicate that the people find the user charge of Rs. 30 per month for five users as expensive.

No provision of sewerage systems in the peripheral urban areas and limited sewer connectivity in covered areas. The low coverage and low household connectivity have led to high dependence on septic tanks in the city. Primary surveys and field visits indicated that the septic tanks overflowed in the open spaces, and wastewater got mixed with storm water making people's movement difficult in the city.

Increased risk for performance deficiencies due to low influent organic load into the sewage treatment plants. The total sewage generation in Varanasi in 2010 is about 240 MLD (calculation based on 80% of water supply), whereas the total capacity of the treatment plants in Varanasi is only 101.8 MLD including STP of DLW Varanasi. Hence, at present only 43% of the sewage generated is being treated at the STP.

6 Aspects of Sanitation: Ground Realities

Studies carried out in India and abroad indicate that human excreta are the cause of many enteric diseases like cholera, dysentery, typhoid, hepatitis, hookworm, diarrhoea, etc. The severity of the problem in India could be judged from the fact that hardly 20% of the urban population has access to flush arrangement connected to sewerage system, 14% have water-based toilets connected to septic tanks, 33% have bucket toilets and remaining 33% do not have access to any toilet facility who have no option but to go for either for open defecation or dry bucket toilets or use community public toilets (Sulabh Report 2007). Open defecation seems to be the worst type of sanitation as it defiles ecology, foul water resources and causes stink in inhabited areas. Man is exposed to nakedness, a wholly unacceptable situation in a civilized society. Therefore, an appropriate solid and liquid waste management strategy should be the primary objective of improved sanitation to build a healthy nation and provide a cleaner environment.

This section of the paper is based on primary data collected from the field with the help of a set of questionnaires and supported by other techniques like PRA, FGD and personal observation. Secondary sources of data like documents of ULB's, relevant government reports, documents, study reports and other similar documents were of immense use. Discussion focuses on the analysis of the sanitation aspects in Varanasi city and includes various issues of both the aspects of sanitation, i.e. sewerage and disposal aspects of the wastewater as well as the state of toilets and bathrooms used by the respondents and their family members.

6.1 Aspects of Sanitation: Wastewater and Sewerage System

Sanitation refers to the safe management and disposal of human excreta and wastewater. Sanitation aspect of an area involves service delivery and cannot be measured only in terms of physical outputs such as the number of toilets constructed over a period of time or the length of sewer laid in terms of kms. Rather it is the outcome, i.e. the use and maintenance of those facilities. Construction of a toilet is generally regarded as the householder's responsibility but for poor households, investments in sanitation are often constrained by issues relating to affordability, uncertainty, space constraints and low priority given to sanitation. Therefore, a special measure is needed to support it which includes subsidies, awareness and technology options suitable to the local conditions.

Coverage relates to installed capacity and hides several issues like actual operating capacity, actual functioning of the system and the equity of distribution. An ideal condition is that every household of the area covered with water supply and sanitation facility should also be connected properly with the sewer line but in reality the figure for coverage is always higher than the figure of connectivity which implies that even though the area is covered it is devoid of facility in spite of the fact that the public pays for it and the state is generating revenue without providing service. The sewerage system of Varanasi may be conveniently divided into two groups. Underground sewer and surface drain which includes covered drain, partly covered drain and surface drain or open nallas. In Varanasi, a little less than three-fourth of the respondents (74.7%) said that their locality had an underground sewerage system but only 52% of the respondents said that their houses were actually connected to the sewerage system. During the PRA session, one woman social worker from Bari Gaibi in Vinayaka ward remarked that renting generators on a regular basis for lifting the wastewater from the locality is a common practice.

When asked about wastewater disposal, 86% of the respondents said that they throw it at specified place/drain and 13.3% of the respondents consider that they throw wastewater in front/back of the house because there is no specified place. This type of approach towards wastewater disposal is likely to aggravate the water logging problem followed by water borne diseases. Of the total respondents, 58.9% said that their locality faces water logging problems, of which 88% consider the problem of water logging was severe in the rainy season mainly because of choked sewers and overflowing of the drains (75.3%) followed by no provision of sewers (20%). Some of the respondents also said that they have dug soak pits which are used for wastewater disposal. Other responsible factors are poor sewerage system, poor drainage management and low-lying areas. On the issue of wastewater disposal, all respondents (100%) in Katuapura, Pan Dareeba and Ramapura said that they disposed of their domestic wastewater in the sewers or space identified within the house for this purpose. On the other hand, Sarnath is the only ward where the majority of respondents (60.6%) accepted that they disposed of their domestic wastewater in front or back of their houses. Data available at ward level for Varanasi further elaborated that in eight sample wards a majority of respondents (who had open drain for wastewater disposal) considered that the regular cleaning of drains was uncertain.

Provision of water supply and maintaining the status of sanitation is the responsibility of municipal authority. Respondents were asked regarding whom they contacted in case of choked sewers. A large number of respondents (66.8%) agreed that they approached municipal employees for clearing of the drainage and choked sewers, and 17.3% preferred personal arrangement on payment basis. Very few opined that they should approach local representatives for water and sanitation related issues and the same was confirmed by the elected councillors. An association is observed between the willingness to pay for service restoration and the time taken in it. Of the total respondents, 55.4% said that the duration was 3–7 days, and 25.6% said the duration of restoration was less than three days. On the question of how much money people spend on the restoration of sewers, half of the respondents said that they did not spend any amount once it was attended by the municipal authorities or the complaint was lodged with the people's representatives while 34.4% of them said the amount was less than around 50 Rs once the sewer system was disturbed.

Restoration of any such basic services cannot take place in isolation and if there is participation of people, the work becomes easy (Jha 2010). Respondents were asked whether there is community participation in solving such problems, more than half of the respondents (55.4%) said yes. Whether they are satisfied with the community effort, 68% said affirmatively. In seven wards (Vinayaka, Nadesar, Katuapura, Pan Dareeba, Ramapura, Pathani Tola and Dhoop Chandi), majority of the respondents were of the opinion that community participation is playing significant role in restoration of the sewer choke and is reflected in generating financial resources, creating pressure on the authority or in the form of manual labour (Hindi: *shramdaan*).

Is there any improvement in the sewer system in the last 5 years? Of the total respondents, 77.8% said no as against 21.9% who said yes. In all the sample wards, the majority of the respondents were of the view that there has not been any improvement in the sewerage system of their locality in the last five years. In 10 out of 12 sample wards, the majority of the respondents believed that they are not satisfied with the community efforts. Similarly, when the respondents were asked about their satisfaction with the existing sewerage system, the majority of them (58%) said no. Tests of independence for the two variables, i.e. satisfaction with the existing sewerage system and improvement in the last five years were performed; the result shows that the two variables are associated to each other and this association is statistically significant at 0.01 significance level. Similarly, the tests of independence for the two variables are independent of each other, and this association is statistically significant at 0.01 significance level.

A perception-based performance matrix is prepared on the basis of responses in different sample wards taking six variables:

- 1. Underground sewer system (1).
- 2. No water logging in the locality (2).
- 3. Community participation (3).
- 4. Satisfaction with community participation (4).
- 5. Improvement in the last five years (5).
- 6. Satisfaction with sewer system (6).

Matrix given above (Table 4) shows that the majority of the respondents in ten sample wards consider that their wards have underground sewerage systems, and water logging is considered as a problem in nine wards. Ironically, there are seven sample wards where in spite of the underground sewerage system there is a water logging problem. Such type of fieldwork-based information reveals that the areas are covered but not connected properly that results in water logging problems. There are seven wards in which the majority of the respondents are of view that community participation is taking place in sorting the problem, and in five wards majority of the

Wards	1	2	3	4	5	6
Vinayaka	\checkmark	X	\checkmark	\checkmark	X	X
Sunderpur	\checkmark	\checkmark	X	X	X	\checkmark
Nadesar	\checkmark	X	\checkmark	\checkmark	X	X
Shivpur	X	X	X	X	X	X
Sarnath	Х	X	Х	Х	X	X
Naria	\checkmark	\checkmark	X	X	X	\checkmark
Katuapura	\checkmark	X	\checkmark	\checkmark	X	X
Pan Dareeba	\checkmark	Х	\checkmark	X	X	X
Ramapura	\checkmark	X	\checkmark	X	X	X
Benia	\checkmark	\checkmark	X	X	X	X
Pathani Tola	\checkmark	X	\checkmark	\checkmark	X	X
Dhupchandi	\checkmark	X	\checkmark	\checkmark	X	X

Table 4 Perception-based performance matrix of the sewer system

• 50 % or more respondents saying Yes- \checkmark

• 50 % or more respondents saying No- \mathbf{X}

Source Field work

respondents are satisfied with their efforts. They consider that community efforts are successful in mobilizing resources and creating pressure on the municipal authority. Respondents in Pan Dareeba and Ramapura are of the view that though there are efforts for community participation but these have not been effective in resolving local issues related to the sewerage system. Further, the majority of the respondents in all the sample wards consider that there is no improvement in the sewerage system in the last five years. This gives an insight into the ground reality and observation about the status of different programmes and policies including JNNURM in the city. In two wards (Sunderpur and Naria), the majority of the respondents consider that they are satisfied with the existing sewerage system. There are two wards, Shivpur and Sarnath, located on the periphery with rural characteristics that show negative responses by majority of the respondents in all the six variables. Benia, Pan Dareeba and Ramapura have two variables with the majority of the respondents having positive views. In the remaining seven wards, more than half of the respondents have shown positive response to three variables. Table 4 shows the spatial variation in the sewerage status in the sample wards which needs special attention of municipal authority for creating conditions for healthy urban life.

6.2 Toilets and Bathroom Inside the House

Data on sanitation services, from 54th round of the NSS (1999), gives a state level analysis showing spatial variation across the state. The NSSO has categorized

different types of toilets as service toilets (those toilets serviced by scavengers), septic tank (toilets which are connected to a septic tank chamber), pour flush toilets systems (toilets connected to the underground sewerage system), pit toilets (connected to a pit dug in the earth) and sewerage system in which toilets are connected to underground pipes to carry out drainage water (NSSO 1999). Among these types of toilets, septic tanks are the most common type of toilets in India being used by more than one third of the urban population (Zérah 2006).

In Varanasi, 77% of the respondents said that they have toilets within the premises, and 93% of them said that they are closed to maintain the safety, security and dignity of the family members, particularly women. Of the total respondents, 87% consider that the toilets are linked to the sewerage system, and 12% are having septic systems. However, in majority of the cases the toilets are not properly connected to the city sewerage system that causes water logging and drainage congestion in the locality. In areas, where sewerage systems have not been properly laid down, the existence of septic tank toilet systems is quite significant. Zérah (2006) advocated for initiating a sanitation policy favouring septic tank toilet systems because it would not require much water to evacuate the human excreta. However, an efficient system and regular cleaning is a precondition for a successful septic tank toilet system.

Where the toilets are available inside the house, it is being used by all the family members irrespective of age and sex. On the question of who cleans the toilet, 75% of respondents were of the view that both males and females do it as per the convenience and availability of time. Only 11.5% of the respondents showed their dependence on a sweeper (who is paid a monthly amount of Rs. 150–250) for cleaning the toilets, and this is true only in the case where the toilet is located outside the house because of socio-religious factors.

On a question related to the location of the bathroom and its physical condition, 58.5% said that it is inside the house and closed for privacy and safety purposes; 26% respondents said that it is outside the house; and 15.6% said that it is inside the house but open. In this case, a place within the house is earmarked and covered by curtains or some other locally used temporary material to maintain the privacy and dignity of the women. When asked about the continuity of water supply in toilets, 46.4% of respondents were of the view that there is no tap fixed in the toilet, and 53.6% of them said about the availability of tap in the toilet. These two data sets present two different sanitation scenarios. In earlier cases, the water is to be carried in a mug or small bucket, and the level of cleanliness gets affected because of insufficiency of water and insufficient force to flush the excreta. If the tap is fixed and water is available only for a limited period of time, the scenario remains almost the same. So, the water tap needs to be connected with an overhead tank for maintaining proper sanitation.

In case of no bathroom inside the house, the respondents and their family members have to depend upon some other means which include community/sulabh bath complex on payment basis particularly for females, and riversides in case of males. The second priority was given to the stand pipes.

6.3 Toilets and Bathroom Outside the House

This section of discussion relates to the toilet/bathrooms facilities outside the house and includes open defecation as well as use of community/public toilets. Notionally, in urban areas, there is hardly any open space identified for defecation. However, in the absence of adequate toilet facilities, the poor and slum dwellers have no option but to do so in open space or near rivers, lakes, ponds, railway tracks, roads, etc. In Varanasi, 15% of the households do not have access to toilets and resorts to open defecation mostly in the wards like Tarna, Narayan, Sarsauli, Shivpur, Ramrepur, Mavaiya, Sarnath, Pandepur and Pahariya. Such hot spots have been identified in the city sanitation plan of Varanasi. Community toilets are needed for slum and pavement dwellers, rickshaw pullers and the floating population. It is considered as an important tool for bringing behavioural changes among the communities and particularly in the slum pockets. However, the experience of maintenance and upkeep of these units by municipal authorities has been dismal. It has been generally observed that the proper maintenance of community toilets could not be ensured and have become non-functional for a host of reasons ranging from non-availability of water, faulty construction, lack of safety and security for women, absence of operation and maintenance, lack of special provision for children and disabled and insufficient funds for running the system, etc.

Respondents who do not have toilet facility inside the house, 42.3% of them said that they go for open defecation, 25% said they use community toilet (constructed and maintained by the Varanasi Municipal Corporation/District Urban Development Authority) and 17.3% said they use sulabh shauchalaya on payment basis. Community toilets are more cost-effective than individual household toilets in terms of investment and land requirements but there is a problem of maintenance. Different castes, religious or ethnic groups in a community have their own social norms, which include restrictions on interactions with others. Such limitations on group members not only include rules about whom they may trade with or marry but also more mundane matters like with whom they may eat, bathe or share a toilet with. This oversight on the part of outside agencies (whether governmental or non-governmental) frequently results in community toilets being built in a sanitary "no man's land" or else right in the area where one social group uses it to the exclusion of all others. The issue of training one or more individuals to maintain these toilets is rarely paid any attention. Hence, the lack of well-defined roles and duties results in such structures being poorly maintained and ultimately falling into disuse (Jha 2010).

In case of open defecation what type of problems are faced by the women? Three fourth respondents consider more than one reason, i.e. openness, insect bite and eve teasing followed by 20% respondents considering openness as the single contributing problem faced by women. On the issue of insecurity and discomfort involved in using community toilets/sulabh sauchalaya, majority of the respondents (60%) said that the females do not feel any sense of insecurity and discomfort while using public toilets. This response is basically the result of toilets equipped with provision of light, ensured water supply, proper doors with latches and the amicable behaviour of

Ward	Cleanliness	Water	Light	Door with latch
Vinayaka	\checkmark	\checkmark	\checkmark	\checkmark
Sunderpur	X	\checkmark	\checkmark	X
Nadesar	\checkmark	\checkmark	\checkmark	\checkmark
Shivpur	X	X	X	\checkmark
Sarnath	\checkmark	\checkmark	\checkmark	\checkmark
Naria	-	-	-	-
Katuapura	\checkmark	\checkmark	\checkmark	\checkmark
Pan Dareeba	-	-	-	-
Ramapura	\checkmark	\checkmark	\checkmark	\checkmark
Benia	\checkmark	\checkmark	\checkmark	\checkmark
Pathani Tola	X	\checkmark	\checkmark	\checkmark
Dhupchandi	\checkmark	\checkmark	\checkmark	\checkmark

Table 5 Level of satisfaction with toilets

• 50 % or more respondents saying Yes- \checkmark

 \bullet 50 % or more respondents saying No- ${\bf X}$

Source Field work

staff working there, and is true in the case of sulabh sauchalaya. But when it comes to public and community toilets maintained by the municipal authority, the scenario is changed and this is mainly because of a host of factors like lack of finance, lack of manpower, and lack of any operational mechanism. Without proper water supply, without sufficient lighting provision, and without proper doors with latches, the females feel insecure and uncomfortable in using such toilets. A ward-level analysis of the level of satisfaction with public toilets/community toilets is shown below to present the spatial scenario (Table 5).

There are seven wards (Vinayaka, Nadesar, Sarnath, Katuapura, Ramapura, Benia and Dhupchandi) in which all the four parameters are fulfilled and the situation seems to be favourable. Shivpur lags behind in three parameters, i.e. cleanliness of the toilets, availability of water and proper lighting system. Sunderpur lags behind cleanliness and latch. In Naria and Pan Dareeba, no respondents reported that they use community toilets or sulabh complexes.

Respondents also held the view that employees at sulabh complex are well behaved, amicable and supportive. While using community/public toilets or sulabh shauchalaya the goers have to pay some amount in the name of service charge. At the policy level, sulabh shauchalaya collects user charge at the rate of Rs. 3 for toilet and Rs. 5 for toilet and bathing as rule of thumb and changes over space and time. In some cases (as in Sarnath Chauraha), the caretaker has to deposit a fixed daily amount to the sulabh authority, whereas in case of bus stand Varanasi the caretaker deposits the amount actually collected on the daily basis. The basic purpose of these two different strategies as explained by the representatives is to collect the revenue for maintaining the service quality on a sustainable basis with "no profit no loss" motto. In case of Sarnath (a tourist place), the rainy season is considered as a lean period with a smaller number of tourists coming; due to this the toilet system runs at loss, and the mechanism of user charge collection is devised accordingly. The management of community/public toilets is in a poor state with no fixed rate, arbitrary user charge, and non-maintenance of record. In the case of regular users, a fixed arbitrary amount is collected on a monthly basis. Some of the influential local people do not pay any amount as a user charge and take it as a matter of pride. A mechanism is required to ensure the collection of user charges, and the maintenance of accounts and records for a sustainable service system. The respondents were asked the reasons for not having toilets and bathrooms inside their houses. They consider that it is one of the basic needs that any civil society should have but they are helpless because of several reasons and the most important among them being the lack of money followed by lack of space and others.

7 Concluding Remarks

Access to sanitation is a basic human right and linked to the vicious cycle of poverty and productive processes. Urban sanitation has a broad connotation and takes into account drainage and disposal of wastewater, removal of excreta and disposal of garbage. It has always been linked with water supply because a large amount of water is required for sewerage, cleaning toilet structures and for personal post-defecation cleansing yet has been treated as a poor cousin in the entire ambit of water and sanitation. Various studies and reports find sanitation as a great challenge for Indian cities because of poor sewerage networks in terms of coverage and connectivity, rampant open defecation, use of public toilets by the majority of urban poor whose condition in many of the cases are pathetic and above all lack of awareness towards sanitation. Such findings have been supported through primary data collected from sample municipal wards of Varanasi Municipal Corporation and have been discussed in the preceding paragraphs. It is likely that the National Urban Sanitation Policy (2008) will address the challenge of city sanitation emphasizing the need for spreading awareness about sanitation through an integrated city-wide approach, assigning institutional responsibilities and with due regard for demand and supply considerations with special focus on the urban poor.

References

Census of India (2001) Metadata and brief highlights on slum population in India. http://www.cen susindia.net/results/slums/metadata_highlights.pdf. Accessed 21 March 2015

Census of India (2011) Provisional population totals (Rural Urban Distribution, Uttar Pradesh Series 10

- Central Pollution Control Board (2009) Status of water supply, wastewater generation and treatment in class I cities and class II towns of India. Ministry of Environment and Forests, Government of India, New Delhi
- City Development Plan for Varanasi (2006) Feedback Ventures
- Kamyotra JS, Bhardwaj RM (2011) Municipal wastewater management in India. http://www.idfc. com/.../Chp-20-Municipal-wastewater-management-in-India. Accessed on 25 Sept 2014
- Latha N. et al (2005) Wastewater reuse in megacities: emerging trends in Bangalore city. Paper presented in the drinking water session of the IWMI-TATA partners meet held on February 24–26, 2005 in Anand, Gujarat
- National Sample Survey Organisation (1999) Drinking water, sanitation and hygiene in India. http:// www.mospi.gov.in/national_data_bank/pdf/NSS%2054th%20Round-449.pdf. Accessed on 30 June 2011
- National Institute of Urban Affairs (2005) Status of water supply, sanitation and solid waste management in urban areas. Ministry of Urban Development, Government of India, New Delhi
- National Urban Sanitation Policy (2008) http://www.indiasanitationportal.org. Accessed on 1 June 2014
- Ramaswamy G (2005) India stinking: manual scavengers in Andhra Pradesh and their work. Navayana, Pondicherry, India
- Singh Arun K (Jan 2014) Urban water supply and sanitation in Varanasi and its adjoining districts. Major research project report submitted to the UGC, New Delhi
- Sulabh International Social Service Organisation (2005) Sulabh sanitation movement: vision 2000 Plus, 4 edn. New Delhi
- Trivedy RK, Nakate SS (2001) Treatment of hospital waste and sewage in hyacinth ponds. In Trivedy RK, Kaul S (eds) Low cost wastewater treatment technologies. ABD, Jaipur, India, pp. 132–163
- Zérah, M-H (2006) Urban water and wastewater. http://www.iitk.ac.in/3inetwork/html/reports/IIR 2006/Urban%20Water.pdf. Accessed on 21 June 2012



Arun K. Singh (M.A., M.Phil., Ph.D.) is a professor of Geography at Banaras Hindu University, Varanasi since June 2010. On 20 March 2022, he was appointed as the registrar of Banaras Hindu University. Before joining Banaras Hindu University as a reader in June 2007, he had served for 14 years in the Department of Higher Education, Govt. of Madhya Pradesh, and contributed to the field of teaching, training and capacity building. His area of interest includes urban geography, population geography, economic geography, and participatory planning. He has around 45 research papers to his credit published in professional journals and edited volumes, edited three books, and attended more than 40 national and international seminars/conferences. He has been associated with projects on Impact Assessment of 74th Constitutional Amendment Act sponsored by the Government of Madhya Pradesh, Capacity Building for Poverty Reduction (Department for International Development, DfID), Capacity Building for Access to Information (United Nations Development Programme), State Development Report (Madhya Pradesh) on Urban and Environment (Housing and Urban Development Corporation Ltd-Human Settlement Management Institute, HUDCO-HSMI), and completed one Major Research Project on Urban Water Supply and Sanitation in Varanasi and Adjoining Districts as a principal investigator funded by the University Grants Commission, New Delhi.

Perspective on Agricultural Land Use Trajectory in the Peri-Urban Interface of a Developing Economy: A Case of Aligarh City



Nasrin Banu and Shahab Fazal

Abstract Modern world is increasingly urbanized as over half of its population lives in urban areas although there is still substantial variability in the levels of urbanization across countries. According to the 2011 Census, urbanization in India has increased faster than expected: for the first time since Indian Independence, the absolute increase in urban population was higher than that in the rural population. This process has a bearing on land transformation especially in peri-urban interface (PUI). The fast pace of residential and commercial development is replacing agriculture and other undeveloped land around urban centers. The recent upsurge in urban expansion on its peripheral rural land has made peri-urban interface a hot spot especially among developing countries like India. The present paper attempts to analyze the perspectives of agriculture land use trajectories for 30 years (1980 to 2010) due to expansions in the PUI of Aligarh city and to show how distance from the urban center plays an important role in the transformation of agricultural land use to urban one. The city population was 320,861 in 1981, but it increased to more than double (872,575) in the 2011 census. The study is largely based on qualitative and quantitative design sample: 757 household respondents were proportionately sampled from 44 selected villages from three zones, namely immediate PUI (up to 5 km), intermediate PUI (5–10 km), and distant PUI (10 km and above) which were divided on the basis of distance from the city boundary. The data was subjected to Pearson's Chi-square and Cramer's V analyses embedded in the SPSS V.17. The results suggest that there is a significant relationship between the distances from the city boundary and the consequential influences on the households to sale their agricultural land to other uses because of urban forces which include city expansion, pressure put by property dealers on land owners to sell their land, establishment of industrial units, increasing land value, as well as the transformation of livelihood from traditional agricultural activities to non-agricultural activities. The study also finds that the city PUI, which has well-developed agricultural environs, is a threat not only to fertile agricultural land but also to the livelihood option for the majority

N. Banu

S. Fazal (🖂)

© Springer Nature Singapore Pte Ltd. 2022

Department of Geography, Aliah University, Kolkata, West Bengal, India

Department of Geography, Aligarh Muslim University, Aligarh, UP, India

R. S. Singh et al. (eds.), *Practising Cultural Geographies*, Advances in 21st Century Human Settlements, https://doi.org/10.1007/978-981-16-6415-1_23

of native population. Therefore, the study suggests policy formulation for effective land protection to safeguard the interests of local population and their livelihoods.

Keywords Agricultural land use \cdot Land transformation \cdot Livelihood \cdot Pei-urban interface \cdot Urbanization

1 Introduction

Urbanization and development of cities have incurred significant loss of agricultural land as cities consume huge tracts of farmland throughout the world. In present day, world human activities have brought significant changes on land resource. These changes have resulted not only in loss of agricultural land but also degradation of land resource (Daily 1995; Oldeman et al. 1991). The urban sprawl affects agricultural land leading to its scarcity (Fischer and Sun 2001; Fazal 2014). This change in turn definitely poses threats for present and near future. Thus, the existing land use and/land cover pattern changes in land use pattern, and the relationship between population growth and food production is a matter of major concern.

In today's increasingly globalized world, over half of the world's population (54%) lives in urban areas although there is still substantial variability in the levels of urbanization across countries. The continuing urbanization and overall growth of the world's population is projected to add 2.5 billion people to the urban population by 2050, with nearly 90% of the increase concentrated in developing countries among which India has the second-largest urban population (410 million) after China (World Urbanization Prospects, UN Reports 2014).

A rapid urbanization process with a simultaneous development in Indian economy has augmented considerable urban expansion in the recent decades. According to the 2011 Census, urban population in India has increased faster than the expected. For the first time since independence, the absolute increase in urban population was higher than that in the rural population. The urban population grew from 286 million in 2001 to 377 million in 2011—an increment of 91 million, which is larger than the rural population increment of 90.5 million for the first time since independence (Bhagat 2011). Over the first half of the twentieth century, growth in Indian cities remained largely confined within municipal boundaries, and much of the population growth and migration to cities was accommodated by crowding people into existing urban areas rather than by expansion of cities into suburbs and fringe areas (Brush 1968). This pattern of growth and population absorption has, however, changed significantly over the last couple of decades (Shaw 2005). Urban centers in India have grown not only in population but also in their areal spread (Shaw 1999).

Cities in India are emerging as centers of both hope and despair. These settlements are engines of economic and infrastructural development, but at the same time, poor management and destruction to natural resources caused by their haphazard expansion have raised serious concerns. The prevailing stress on land resources has its bearing on decreasing pasture lands, open space, and above all agricultural lands and its productivity. Current demographic trends pose a dual land problem, scarcity and competition for land in the urban and peri-urban areas, as well as abandonment and lack of maintenance of property in remote rural areas with low carrying capacity and limited earnings from land. Competition for available land in an open market system leads to an increase in land prices (FAO 2003). This status of land resource is highly dynamic at the urban margins, which is termed as peri-urban interface.

The peri-urban interface is a social, economic, and environmental space where three systems—agricultural, urban, and the natural—are in constant interaction (Fazal 2013). A combination of factors is responsible for the emergence of periurbanization or urban sprawl into the PUI, creating melting transitional peri-urban zones. This zone offers less congested accommodation with relatively lesser price of land than that within the city, and even migrants to these areas find it easy to access these lands and quickly use them for their agricultural activities. Studies suggest that as the cities become congested and land in the urban areas attract a great deal of demand pressures, attention seems to shift to agricultural land (for the purposes of urban land uses, such as residential, commercial, and recreational (Mazzochi et al. 2013).

The present paper attempts to analyze the perspectives of agricultural land use trajectories for 30 years (from 1980 to 2010) due to the development and expansions of Aligarh city on its peri-urban interface (PUI) zone. This study also tries to portray how the distance from the urban center plays a role in the transformation of agricultural land use to urban usage.

1.1 Agricultural Dynamics in Peri-Urban Areas

As globalization fuels the concentration of people, services and markets in growing cities worldwide, each city's growth remains unique as it is given shape by local processes and interfaces between the global and the local (Adell 1999). It is for these reasons that the peri-urban interface provides an ideal and dynamic context to observe land conversions that reflect a city's growth spatially, economically, socially, and environmentally. In India, this scenario was noticed just after independence and got a pace of acceleration in the early 1980's (Siddhartha and Mukherjee 1997). Notably, the new developments and expansion of the urban centers occur on its immediate peripheries (Banu and Fazal 2013) that are as a result of increase in population pressure on the limited land resources (Djurfeldt and Jirström 2013).

Although agriculture remains the most significant natural resource-based livelihood activity in PUI (Brook and Dávila 2000), the process of peri-urbanization alters these agricultural systems. This process is almost universal and becoming more prominent with the spread of urbanization. However, there are other processes also that operate specifically related to specific locations. Changes in agricultural land uses by intensification can be attributed to the increase in economic gains over agriculture. It is obvious that agriculture is a sector with long-term earning, while the service sector provides immediate income into the hands of the workers.

1.2 Implication of Land Use Change on Agriculture Production

Peri-urbanization process is inevitable during the course of urbanization, and this process has a direct relationship with non-agricultural land use and vice versa. On one hand, non-agricultural land is a key element to the region's development that makes evolution of the peri-urban area providing geographical space, while on the other side, the peri-urbanization process makes a strong impact on land use changes, such as the influence on land use pattern and human's land use behaviors (Yin et al. 2011).

The lateral spread of the cities in India is reflected in the census data which indicate that the area for urban uses has increased from 38,504 sq kms in 1961 to 64,026 sq kms in 1991 (Shaw 2005), which is estimated to have increased up to 5,32,000 sq kms in 2011. Urbanization affects land use changes through the transformation of urban–rural linkages, and this process with transformations in economy and immigration has augmented considerable land use change in recent times. The rapid pace of residential and commercial development is replacing agricultural and other undeveloped land around them. This in essence has affected the productive lands as most of the lands converted to these development activities lie in fertile agricultural tracts. In addition, agricultural activities are weakened, as farmers start to engage in other economic activities, which attract immediate livelihood goals as compared to agricultural returns (Dutta 2012).

1.3 Effects of Agricultural Land Conversions on Food Security

Land is becoming a diminishing resource for agriculture, in spite of a growing understanding that the future of food security will depend upon the sustainable management of land resources as well as the conservation of prime farmland for agriculture (Swaminathan 2011). Recent boom in food prices has led to a renewal of interest in factors affecting agricultural production and markets for agricultural products. One concern that emerges due to rapid urbanization in developing countries is that it is also contributing to escalation of food prices (Stage et al. 2009). The process of urbanization affects food production in two ways: by removing agricultural land from cultivation as the city expands, and by reducing the size of farmland as well as forcing farmers to move to cities (IISD 2012). This has multiple implications including increase in the prices of land, loss of farmlands by its conversion to nonagricultural land uses, and above all increase the risk of food insecurity and poverty in the urban peripheries (peri-urban) and urban areas.

2 Methods and Data

In the literature, various approaches are taken to ascertain the complex and multidimensional process of urbanization and its impact on agricultural lands. The present paper uses the case study method of research, which is an empirical inquiry investigating a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident and where multiple sources of evidence are used. The case study is used to present a portrait of a specific social phenomenon and is often considered to be the most flexible of all research designs, largely because of the ability to draw from a number of data sources (Yin 1984; Hakim 1987).

The present research effort is based on both primary and secondary sources of data. The secondary data provided base to the study; these data included demographic and socio-economic information. The secondary data were collected from the Census of India publications and published bulletins of state and district level agencies as well as records of government and municipal offices. The primary data for assessing land transformation, reasons for such transformations, and respondents' answers to specific queries for their decision-making process. The study analyzed agricultural land use conversion trajectories resulting from interactions among the land use decision-making agents, i.e., households in the Aligarh's PUI. The respondents were asked for their responses to the situation that influenced their land use decisions in the PUI. Despite its drawbacks, the household approach is the most workable level to measure land transformation processes in traditional north Indian PUI society. The selected research area encompasses a wide range of villages: from places that have remained relatively rural and derive their income mainly from cultivation of land to villages that have been entirely enveloped by urbanization. The distance from the city, land use pattern, and transformation of the occupational structure is the most important criteria for clustering and selecting villages for the study. A basic household survey was conducted to describe the situation in 44 villages located in Aligarh's PUI. The collection of data collection was based on stratified random sampling method where on the basis of the distance from the city boundary, the PUI was divided into three zones namely immediate PUI (Up to 5 km), intermediate PUI (5–10 km), and distant PUI (10 km and above), and a sample size of 757 household respondents aggregated by zone was sampled purposively and data solicited from them using a structured partially pre-coded questionnaire. Out of 757 households, 691 households' own lands and the remaining 66 households were either landless or had disposed of the entire land.

The quantitative data gathered were subjected to Pearson's Chi-square, Cramer's V statistics of association and strength and correlations coefficient explanations, respectively, all embedded in the Statistical Package for Service solution (SPSS) version 17. Open-ended qualitative responses were integrated in the discussions under the various thematic treatments of the sections of the paper.

The analysis for land transformation was done from three time period data. It included Aligarh city guide map at 1: 20,000 scale, prepared by Survey of India for

1980, and IRS satellite imageries for 2000 and 2010. The satellite data were enhanced before classification using histogram equalization for the better interpretation and to achieve better classification accuracy. Furthermore, the images including the city guide map were rectified to a common Universal Traverse Mercator (UTM) projection/coordinate system. The data sets (LISS III data and guide map) were resampled to 5.8 m spatial resolution using nearest neighborhood resampling technique in Erdas Imagine software to make it comparable to IRS PAN data 5.8 m cell size. Then 'on screen' digitization was performed on these data sets. To prepare land use/land cover (LU/LC) maps for the year 1980, 2000, and 2010 of the study area, Level-II LU/LC classification scheme has been used. To validate results of classified land use/land cover map, 25 sample points were verified which represented all major land use/land cover classes.

2.1 Profile of the Study Area

Aligarh city is located in the Gangetic plain area where agriculture is the principal economic activity due to the fertile alluvial soils. This city is a relatively smaller city (by Indian standard) which is located only 132 km. away from Delhi. Its location is important for the present study in the sense that it is a traditionally agrarian region where in 1960's pilot project on Integrated Rural Development Programme (IRDP) for agricultural development was successfully initiated and implemented, but proximity to national capital and evolving tertiary sector have made Aligarh's urban fringe a focal area for land use transformations. It is the seventh-largest populated city in Uttar Pradesh (Census of India 2011) and has the status of class-1 city with 23% of the district population living in Aligarh city. Although the urban growth rate is fluctuating in Aligarh city, the city population is gradually increasing. Studies suggest that rapid urbanization of Aligarh city has led to large-scale land transformations and expansion of urban area (Fazal 2013). The urban shadow effect is affecting the surrounding rural areas, and the land value is increasing rapidly in and around Aligarh city (Banu and Fazal 2014). The population is increasing by natural growth and migration in Aligarh city resulting in expansion of the city encroaching upon the lands from surrounding villages to accommodate these people. The total population of Aligarh city is 872575 according to the 2011 census which indicates substantial increase of city population as in 1981 its population was 320,861. The village economy is tied up with the growing city. There is a phenomenal increase in linkages with daily movement from the village to the city in order to supply the different commodities. All this indicates toward development and expansion of peri-urban interface (Banu and Fazal 2013).

3 Result and Discussion

3.1 Status of Land Resource in Aligarh PUI

In the PUI of Aligarh city, the occupational activities are traditionally dependent on agriculture because it is located in the agriculturally prosperous region in India where inputs of Green Revolution especially HYV seeds and assured irrigation were implemented successfully. However, there are also formal influences driven by processes of urban expansionary shifts toward the peri-urban areas of Aligarh city. The morphology of the city is characterized by a densely populated city center (Central Business District), a mostly residential use surrounding the city core and development along traffic corridors extending into the typically extensive land areas available either for agriculture or vacant land (Fazal 2001). A place qualifies as a peri-urban interface, particularly the conversion of arable lands to residential and commercial land use. In this context, PUI of Aligarh city is not an exception. The development of the city and gradual expansion outward in PUI, where land rent is lower and land use conducts are more flexible, makes PUI agricultural land vulnerable to change. Here, the stability of the PUI landscape is relatively poor as compared to urban or rural landscapes which have a relatively better stability because of their specific rural or urban usage, whereas in PUI it is intermixing of both the activities which are also subject to rapid change.

The value of land is largely influenced by the market forces, which in many ways determine the supply and demand for land. The survey reveals that as the urban economy grew, and its economic structure changed due to which there was increase in the demand and resultant value of land. This increased demand was met by acquiring more and more rural/agricultural land. The urban development authorities and other public agencies have pursued the policy of land acquisition development and disposal of land. The Aligarh Development Authority (ADA) has proposed to acquire 11,470 hectares of land in its 2001 master plan (Aligarh Master Plan, 2001–2021 prepared by Aligarh Development Authority).

3.2 Drivers of Peri-Urbanization and Land Use

All over the world, several factors (social, cultural, economic, and natural) have been influencing land transformation in the process of urbanization and peri-urbanization (Masanja 1999). Studies suggested population pressure and resultant land scarcity as a driving force of change in land use in rural areas of PUI. This reflects as land use undergoes a process of systematic change from extensive to intensive corresponding to the pace of population growth and gives an impression that the change would happen automatically (Boserup 1965). However, concerns were raised that if population growth is not accompanied with appropriate policy and technology, it may lead to 'involution' of the land use system rather than progression to its higher order.

Zone		Populatio	on	n C		Change
		1991	2001	2011	1991–2001	2001-2011
Immediate PUI	Count	14,766	26,329	48,979	78.31%	86.03%
	% within PUI	31.39%	41.12%	51.51%		
Intermediate PUI	Count	16,898	20,527	25,086	21.48%	22.21%
	% within PUI	35.92%	32.06%	26.10%		
Distant PUI	Count	15,381	17,168	21,020	11.62%	22.43%
	% within PUI	32.69%	26.81%	22.10%		
Total	Count	47,045	64,024	95,085	36.09%	48.51%
	% within PUI	100%	1000%	100%		

Table 1 Population growth in the sampled villages

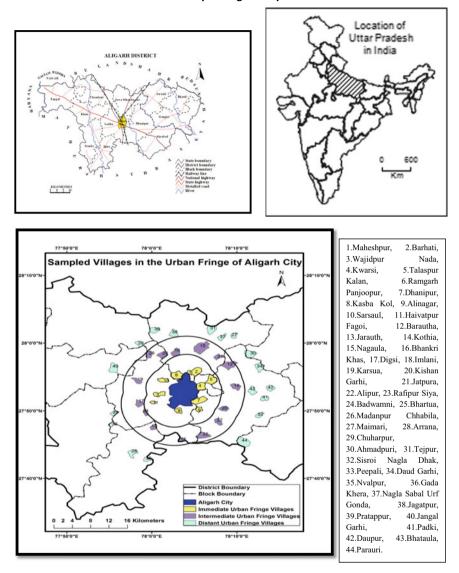
Notes

Figures in bold are the absolute number of sampled respondents in the particular distance zones Figures underlined are percentages to the total from that particular distance zone *Source* Based on population census of India 1991, 2001, 2011

Thus, population is an important attribute for land use change, and it is prominent in urban centers and its peripheries (Geertz 1963).

Present study finds that the PUI of Aligarh city has witnessed significant growth in its population and was marked with intensification of concentration of population (Table 1). From the census data, it is evident that in immediate PUI the population growth rate is 78.31% during 1991–2001 and increased to 86.03% during 2001–2011 which is remarkably higher as comparison to 11.62% during 1991–2001 and 22.43% during 2001–2011, respectively, in distant PUI. In Aligarh's PUI, the population density has increased from 1765 per sq. km in 1995 to 2585 per sq. km in 2012 (Patrika 1995 and 2012, Economics and Statistics Division. Government of Uttar Pradesh. Available online at http://updes.up.nic.in/spatrika/spatrika.htm). There is a continuous and accelerated inflow of population in "immediate PUI," both from urban core and rural hinterland (Fig. 1).

The sample survey finds that the city population is moving to PUI because this zone provides less congested accommodation that too at lesser price, whereas rural people migrate to PUI to take advantage of greater economic opportunities. Along with these facilities, relatively higher and regular wages act as a pull factor for the migrants from far areas to the PUI especially in "immediate PUI". The survey data clearly demonstrates that out of the total sampled households in immediate PUI, 31.8% households designated themselves as migrated people but surprisingly none of the households in intermediate and distant PUI reported themselves as migrated. These results indicate that the concentration of migrants either from the city or nearby rural hinterland is only accumulated in the closest zone of the city, the "immediate PUI" (Table 2). These models argue that population density declines with distance from the city center and that a peripheral zone of high rural density can be envisaged.



Location Map of Aligarh City

Fig. 1 Location map of Aligarh city

3.3 Human Activities and Alteration in Peri-Urban Land Use and Land Cover in Aligarh PUI

Changes on earth's natural land cover have taken place since time immemorial and are a result of both natural and human influence. In recent times, human actions

Zone		Household	status	Total
		Native	Migrated	
Immediate PUI	Count	268	125	393
	% within zone	68.2%	31.8%	100.0%
	% within PUI	42.4%	100.0%	51.9%
Intermediate PUI	Count	198	0	198
	% within zone	100.0%	0.0%	100.0%
	% within PUI	31.3%	0.0%	26.2%
Distant PUI	Count	166	0	166
	% within zone	100.0%	0.0%	100.0%
	% within PUI	26.3%	0.0%	21.9%
Total	Count	632	125	757
	% within zone	83.5%	16.5%	100.0%
	% within PUI	100.0%	100.0%	100.0%

 Table 2
 Relocation of settlement among sampled households

Notes

Figures in bold are the absolute number of sampled respondents in the particular distance zones Figures underlined are percentages to the total from that particular distance zone Figures below the underlined figures are percentages to the total of that particular variable *Source* Based on field survey (2011)

have accelerated the pace of alterations of land at unprecedented rates, magnitudes, and spatial scales (Turner et al. 1994; Owusu 2008). The present study reveals that expansion in residential and commercial land uses was the main human driving factor for land transformation in the PUI, because 50% sampled households used their land under residential and commercial purposes. The demand for land has increased significantly because of popularization of urban-oriented activities. On the other hand, rural-oriented activities (mostly nature based) have been losing their presence, and this has also been identified in the Aligarh's PUI (Fig. 2).

3.4 Determinants for Disposal of Agricultural Land

This study also investigated land disposal during the study period. The sample survey reveals that 32% landowner households dispose their land in immediate PUI, while only 6.1% households dispose their land in distant PUI. Thus, the intensity of agricultural land disposal is increasing with the city proximity (Table 3). The determining reasons that drive land disposal in the PUI subsume the two key reasons (urban forces and non-urban forces) responsible for the influencing factors (Table 4). Out of the total sampled households (who sold their agricultural land), 86.6% reported the reason for selling their land as urban forces. The study therefore sought to ascertain

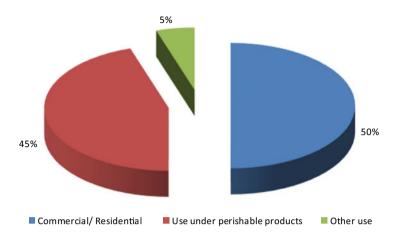


Fig. 2 Household's response for human-driven factors. Source Based on field survey (2011)

Zones		Either dispo	ose or not	Total
		Yes	No	
Immediate PUI	Count	108	230	338
	% within zone	32.0%	68.0%	100.0%
	% within PUI	73.5%	42.3%	48.9%
Intermediate PUI	Count	29	160	189
	% within zone	15.3%	84.7%	100.0%
	% within PUI	19.7%	29.4%	27.4%
Distant PUI	Count	10	154	164
	% within zone	6.1%	93.9%	100.0%
	% within PUI	6.8%	28.3%	23.7%
Total	Count	147	544	691
	% within zone	21.3%	78.7%	100.0%
	% within PUI	100.0%	100.0%	100.0%

 Table 3
 Land disposal among sampled households

Notes

Figures in bold are the absolute number of sampled respondents in the particular distance zones Figures underlined are percentages to the total from that particular distance zone Figures below the underlined figures are percentages to the total of that particular variable *Source* Based on field survey (2011)

the association between the main determinants of peri-urban land use change and household decisions about their land disposal.

Various human economic-driven activities and societal factors were found as the determinants of land disposal in PUI (Table 4). To know the factors which lead to their decision of selling off agricultural land, the landowners asked to state the reasons for

	T TAT OTTOTIO	Table + Determinants for faint use change annoug the sampled households	JIIG UIC SALIPICU	on totto on ott						
Zones		Determinants								
		Urban forces					Non-urban forces	forces		Total
		Livelihood transformation	City expansion and property dealer's pressure	Instant money	Protecting Future	Social Status	Family disputes	Operational Problems	Uneconomic land holdings	
Immediate	Count	26	23	11	9	14	2	11	15	108
PUI	% within zone	24.1%	21.3%	10.2%	5.6%	13.0%	1.9%	10.2%	13.9%	100.0%
	% within PUI	70.3%	100.0%	47.8%	42.9%	63.6%	100.0%	100.0%	100.0%	73.5%
Intermediate	Count	6	0	8	4	8	0	0	0	29
PUI	% within zone	31.0%	0.0%	27.6%	13.8%	27.6%	%0.0	0.0%	0.0%	100.0%
	% within PUI	24.3%	0.0%	34.8%	28.6%	36.4%	0.0%	0.0%	0.0%	19.7%
Distant	Count	7	0	4	4	0	0	0	0	10
PUI	% within zone	20.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 4 (continued)	(pa								
Zones		Determinants							
		Urban forces					Non-urban forces	forces	
		Livelihood	City	Instant	Protecting Social		Family	Family Operational	Uneconomic
		transformation	expansion and money		Future		disputes	Problems	land holdings
			property dealer's						
			pressure						
	%	5.4%	0.0%	17.4%	28.6%	0.0%	0.0%	0.0%	0.0%
	within PUI								
Total	Count	37	23	23	14	22	5	11	15
	% within	25.2%	15.6%	15.6%	9.5%	15.0%	1.4%	7.5%	10.2%
	zone								
	%	100.0%	100.0%	100.0%	100.0% 100.0%	100.0%	100.0% 100.0% 100.0%	100.0%	100.0%

Notes

within PUI Figures in bold are the absolute number of sampled respondents in the particular distance zones Figures underlined are percentages to the total from that particular distance zone Figures below the underlined figures are percentages to the total of that particular variable *Source* Based on field survey (2011)

6.8%

Total

100.0%

147

100.0%

their decision. The factors which were affecting the decision-making process of the sampled households are discussed below.

- Livelihood transformation: The degree of intensities to respond to these determinants, depend largely on the distance from the city. Out of the total land seller households 25.2% mentioned livelihood transformation is the main reason for selling land (Table 4). As urbanization has generated employment opportunities with increased and assured wages, the landowners with better education have obtained jobs outside the agricultural sector. These landowners were found to be more responsive towards the urban forces. They have distanced themselves from direct agricultural activity, resulting in managerial and operational problems in farming activity, thus they are selling their lands in the fringe areas for urban development.
- **City expansion and property dealer's pressure**: Property dealers and land developers pressurize landowners to sell their land as these people need big areas for developing colonies and that too in the immediate zone of PUI due to closer city proximity. This is because those who reported this factor as the key factor for land selling belong to immediate PUI, and this factor does not play any important role in other two zones due to distance factor (Table 4).
- Instant money: Agriculture does not provide high economic returns because the cost of production is increasing, and the profit margins are stagnant. The landowners with relatively poor economic conditions are disposing of their lands to get instant money. The average land rent in the immediate PUI is about Rs. 15,00,0000 (\$227,272 per hectare, Rs.5,20,000 (\$7878) per hectare within intermediate PUI and Rs. 3,00,000 (\$4545) per hectare in distant PUI (District Magistrate Office 2015). The outcome is felt in the form of large scale as well as frequent land transformations. The study reveals that 15.6% households cited instant money as the main factor for selling their land (Table 4).
- Social status: The study also found that the urban forces have transformed the social-cultural mindset of the population. Owning agricultural land was once considered to possess higher social status (Banu and Fazal 2016), but now social status is higher for jobs in urban areas because of the higher wages. The younger population is found to be more responsive to this socio-cultural mindset factor (Ibid.). Table 4 shows that 15% households sold their land due to this factor in Aligarh PUI, and it is very prominent in immediate as well as in intermediate PUI.
- **Protecting future**: Economic returns from the agricultural sector are lower, and protecting agricultural lands from encroachment are difficult and often leads to litigation. Landowners were also found to dispose of their land when real estate prices are high and try to protect their future.
- Family disputes: Another reason which contributes to selling their lands is the tradition of joint land possession, the landowners also dispose of land to avoid family disputes and get whatever money they can get which may not be possible if the dispute for subdivision of land happens. But it is an unimportant factor for influencing land selling decisions as it is reported by only one percent of the households who sold their land in PUI.

• **Uneconomic landholdings:** The study finds that 10.2% households reported this is the key factor for their land selling in Aligarh PUI. This is because small landowners are unable to sustain their family from the small-uneconomic land holding, so they dispose of their land. The cost of production is high, while the returns are lower. The small landowners work as laborers in the unorganized sector of urban centers and dispose of their unproductive-uneconomic lands.

A chi-square test of association between the determining variables revealed that at a significant level of 0.05, the Pearson chi-square results showed a value of $\chi = 17.355$, at degree of freedom df = 2, with a p-value of p < 0.05. There is, therefore, a significant relationship between the distance from the city boundary and the consequential influences on the household's disposal of agricultural lands for other uses. However, the Cramer's V of 0.268 indicates a medium association. In that case, there may be other factors baffling and affecting the determining factors to change land uses in the district.

3.5 Pattern of Peri-Urban Land Conversion and Transformation

Understanding the process of land use transformation in the urban core and in the PUI is very important to guide the urban growth for future habitation. The land transformation analysis is greatly influenced by the growth of activities in urban areas and the nature of peripheral areas (the PUI) which has changed from a dominantly rural agricultural area to an area with mixed, diverse urban-oriented uses.

A time series data for peri-urban land use dynamics was constructed based on the satellite imageries, Survey of India, city guide map and topographic sheet and observed changes in land use patterns from 1980 to 2010. It was observed that residential and vacant land¹ have increased rapidly from 1980 to 2010, while the agricultural land has decreased remarkably at the same period. Thus, it points toward the expansion of vacant and residential land at the cost of agricultural and tree plantation land uses. The land under commercial, industrial, and other urban land uses have increased moderately (Fig. 3).

Agricultural land has been fast decreasing, dwindling in extent and intensity of use with a -42.3% decline rate from 1980 to 2010. The study identified land use conversion permutations as; from agricultural land use to tree plantation to vacant

¹ Vacant land is all unused land with no clear designation, though often it is in the middle of a process of conversion. This land may be covered with bushes and grass; it might also be completely barren. Many plots of vacant land are kept for speculative purposes and are therefore left vacant for extensive periods. Rising land prices induce some of the landowners to discontinue agriculture, construct a boundary wall, and leave the plot temporarily unused. In particular, it may be found near roads and adjacent to villages, where the land values are rising steeply. In case of Aligarh PUI, the respondents pointed out that the vacant land bounded by wall are to be converted to either residential or commercial purposes in near future.

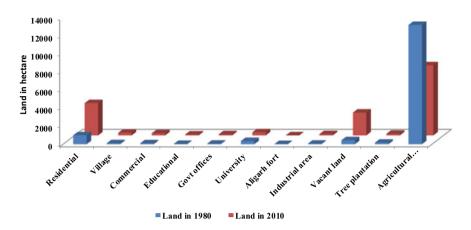


Fig. 3 Land use activity trend over the past 30 years

land to be transformed into built-up land in the form of residential, commercial, or industrial. Table 5 and Fig. 4 show that the city has expanded outward encroaching upon agricultural land of the PUI. The total urban area is 7459 hectares, which during the study period has recorded an increase of 230%. Significantly, the built-up area is spread over 4679 hectares recording an increase of 3,077.5 hectares. It suggests that a significant coverage of urban areas is speculative land where city development has not taken place. Most importantly, the city PUI, which comprises well-developed agricultural environs, is under threat of urban expansion resulting in not only loss of fertile agricultural land but also loss of livelihood option. The city expansion has incurred a loss of 5448 hectares to fertile agricultural lands. Strikingly, the rate of loss of agricultural land is more rapid in recent years as during 1980 to 2000, the average annual loss of fertile agricultural land was 140.1 hectares and between 2000 and 2010, the mean annual loss became near to double, i.e., 264.6 hectares (Table 5).

Year	Area under Agriculture (in hectare)	Loss of Cropland (in hectare)	d	Average Annua (in hectare)	l Loss
1980	13209	2802		140.1	
2000	10407	(1980–2000)	5448 (1980–2010)	(1980–2000)	181.6
2000	10107	2646		264.6	(1980–2010)
2010	7761	(2000–2010)		(2000–2010)	

 Table 5
 Loss of cropland in Aligarh city and its environs (1980–2010)

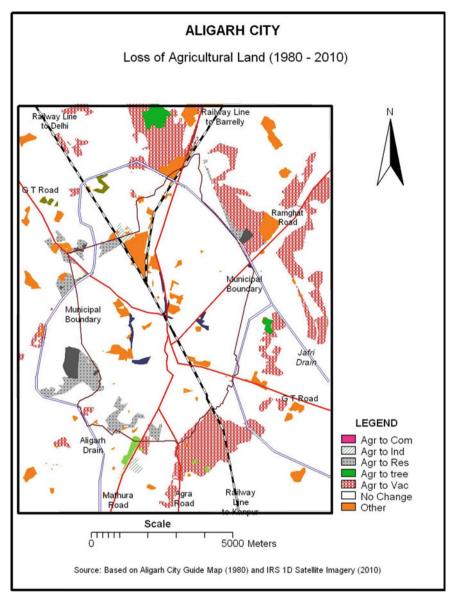


Fig. 4 Loss of agricultural land to 2010 from 1980. *Source* Based on Aligarh city-guide map and IRS 1D satellite imageries

Figure 4 shows that of the 5,448 hectares of fertile crop land which was lost, 3,109 hectares are recoverable (land where no permanent construction has taken place, i.e., 2,798 hectares to vacant land and rest 311 hectares in tree plantation) and 2,339 hectares are not recoverable (land where permanent construction has taken place, i.e., 2104 hectares land to residential, 28 hectares land to industrial land, 62 hectares to commercial purposes, and 179 hectares to other purposes).

3.6 The Cost of Peri-Urbanization

The process of peri-urbanization on a limited area increases the pressure on land for food, space, and leisure, and in principle leads to higher food prices and higher incomes for farmers (FAO 2003). While the continuing struggle against land acquisition for instance by farmers in Aligarh, which took a violent turn, and became a political ploy is being projected as a battle by farmers for big money, the reality is that a majority of the farmers do not want to dispense with their ancestral land. They are being forced to do so (Sharma 2010). So, whatever the cause, whether the cropland is shrinking by the willingness of the farmers or by the forces operating on them, the ultimate effect is on food production which is one of the major components of food security.

Policy makers say that with rapid industrialization the average incomes will go up as a result of which people will have the money to buy food from the open market and also make nutritious food choices. But the bigger question is where will the additional quantity of food come from? Sharma (2010).

Table 6 shows the loss of total crop land and food grain production. The total estimated loss of food grain production due to urban expansion in the study area from 1980–2010 was about 190,680 quintals. Aligarh is expanding by about 182 hectares annually. This implies that every year the loss of food grain production will increase by 6350 quintals. If the projection that Aligarh will have around 1.5 million inhabitants by 2020 is realized and if the city continues to grow at the same rate, a further 60,000 hectares of fertile crop land will be converted to non-agricultural uses. Furthermore, around 50,000 quintals of food grain annually would be lost from the study area alone. From these figures, we can predict the magnitude of the problem which will be coming in our near future.

Table 6 Estimated loss food grain production of cropland in Aligarh city and its environs (1980–2010)

Year	Food grain production (in Quintals)	Loss in food grain production (in Quintals)	Average annual loss (in Quintals)	Time in years
1980	462,315	190,680	6356	30
2010	271,635			

Source Calculated by authors

4 Conclusion

Cities are dynamic human artifacts, which constantly undergo structural change, redevelopment, and growth. Such processes also involve changes in urban relationships with the surrounding territory, most conspicuously on their outskirts.

Presently, India, where urban areas are observing not only increasing concentration of population but also transformations in its economic and socio-cultural characteristics, all this has significant implications on the peripheral areas of the city, the PUI. The developing countries, especially India, need to focus on the unrestricted or uncontrolled growth of urban centers at the peripheral agricultural land. Due to urbanization and increase in population in urban centers as the present study finds, the agricultural land in PUI is environmentally vulnerable through the unabsorbed city population and the expansion and development of the city. There is increased in-migration of population largely in the immediate PUI, both from urban core and rural hinterland because of its location. The city population is facilitated with less congested accommodation that too at a lesser price, whereas rural people are migrating here to take advantage of greater economic opportunities and relatively higher and regular wages act as a pull factor for the in-migrants from far areas.

The demand for land has increased significantly because of popularization of urban-oriented activities. As the urban economy grew, its economic structure changed due to which there was increase in the demand and resultant increasing value of land in PUI. This trend has made land an attractive investment object in PUI. Due to proximity to the city, the average land rent in the immediate PUI is more than four times higher than that of distant PUI. The sample survey shows that all the landowners in Aligarh's PUI were observing the pressure of urban forces, but their responses to it are different because of different economic and social backgrounds.

All the determinants of land use were found more pronounced in the immediate PUI because of city proximity and easy accessibility. This zone becomes a very attractive site for land developers. So, there is more intense pressure on closer environs to the city due to its physical expansion. Both the data, from household surveys and satellite images, reveal that the intensity of land use change is more in immediate PUI, and it decreases with an increase in distance from the city.

Over the past 30 years, changes in land use patterns have been observed; these show that residential and vacant land have expanded rapidly at the expense of agricultural and tree plantation land uses and cover, while commercial, industrial, and other urban land uses have increased marginally. Most importantly, the city PUI, which comprises well-developed agricultural environs, is under threat of urban expansion resulting in not only the loss of fertile agricultural land but also the loss of livelihood options.

Food security is also an emerging issue, and uncontrolled urbanization is threatening food supplies across countries. This phenomenon is also visible in the present study for Aligarh city. Population is increasing unabated in the city, and there is no control over the expansion of urban land at the cost of fertile agricultural land; the study also found a significant loss of potential food grain production from the study area. This poses a real problem as food production in the local economy is hampered by urban developmental expansion, which needs to be checked to control unrestricted land transformation and loss of agricultural land. If the basic necessity, such as food, is going to be affected by any development as shown in this study, appropriate measures need to be taken to control processes of change such as that of the conversion of agricultural land to non-agricultural uses.

References

- Adell G (1999) Literature review: theories and models of the peri-urban interface: a changing conceptual landscape. University College London, Development Planning Unite
- Banu N, Fazal S (2014) Agricultural transformations in the peri-urban interface of a developing economy: a case study. Man Develop 36(2):31–47. Centre for Research in Rural and Industrial Development (CRRID)
- Banu N, Fazal S (2013) Development of infrastructural facilities in public sector on the PUI of Aligarh City: a regional perspective from north India. Journal of Infrastructure Development 5(2):151–168. https://doi.org/10.1177/0974930614527946
- Bhagat RB (2011) Emerging pattern of urbanisation in India. Econ Pol Wkly 46(34):10-12
- Boserup E (1965) The conditions of agricultural growth. Allen and Unwin, London
- Brook RM, Dávila J (2000) The peri-urban interface: a tale of two cities. London, University of Wales and Development Planning Unit, University College London. Printed in Great Britain by Gwasg Ffrancon Printers, Bethesda, Gwynedd, Wales
- Brush JE (1968) Spatial patterns of population in Indian cities. Geogr Rev 58:362-691
- Census of India (2011) Government of India. Ministry of Home Affairs. Office of the Registrar General & Census Commissioner, India
- Daily GC (1995) Restoring value to the world's degraded lands. Sci, New Series 269(5222):350-354
- Djurfeldt AA, Jirström M (2013) Urbanization and changes in farm size in Sub-Saharan Africa and Asia from a geographical perspective, a review of the literature. Independence Science and Partnership Council. Accessed 9 Dec 2013. www.sciencecouncil.cgiar.org
- Dutta V (2012) War on the dream—how land use dynamics and Peri-urban growth characteristics of a sprawling city devour the master plan and urban suitability? 13th annual global development conference, Budapest, Hungary. 2012
- FAO-Food and Agriculture Organization (2003) Overview of land value conditions. ftp://ftp.fao.org/agl/agll/docs/misc35e.pdf
- Fazal S (2001) Land re-organization in relation to roads in an Indian city. Land Use Policy 18(2):191–199. https://doi.org/10.1016/S0264-8377(01)00007-2
- Fazal S (2013) Land use dynamics in a developing economy. Springer Publication, Regional perspective from India
- Fazal S (2014) Peri urban livelihoods opportunities and challenges. Concept Publication, New Delhi
- Fischer G, Sun L (2001) Model based analysis of future land-use development in China. Agr Ecosyst Environ 86(3):163–176
- Geertz C (1963) Agricultural involution: The process of ecological change in Indonesia. Published for the Association of Asian Studies by University of California Press, Berkeley, CA
- Hakim C (1987) Research design: strategies and choices in the design of social research. Contemporary Social Research Series 13. Allen and Unwin, London
- IISD-International Institute for Sustainable Development (2012) Eleventh meeting of the conference of the parties (COP 11) to the convention on biological diversity (CBD). Earth Negotiations Bull 9(595):1–26. http://www.iisd.ca/vol09/enb09595e.html. Accessed 8–19 Oct 2012. Hyderabad, India

- Lewis GJ, Maund DJ (1976) The Urbanization of the countryside: a framework for analysis. Geogr Ann: Series B, Hum Geogr 58(1):17–27
- Magistrate Office (2015) Hand Book on Land Price, Aligarh, Uttar Pradesh
- Masanja AL (1999). Rationalization and sustainability of land use activities in Peri-Urban environment: the case study in Kumasi City, Ghana. Unpublished MSc. Thesis report, submitted to University of Science of Technology, UST, Kumasi, Ghana
- Master Plan (2001) ADA-Aligarh Development Authority
- Mazzochi C, Sali G, Corsi S (2013) Land use conversion in metropolitan areas and the permanence of agriculture: sensitivity index of agricultural land (SIAL), a tool for territorial analysis. Land Use Policy 35:155–162
- Oldeman LR, Hakkeling RTA, Sombrek WG (1991) World map of the status of human-induced soil degradation: an explanatory note. Second revised edition. ISRIC. Wageningen and UNEP, Nairobi
- Owusu G (2008) Indigenes' and migrants' access to land in peri-urban areas of Accra. Ghana. Int Develop Plann Rev 30(2):177–198
- Sankhyikiya Patrika (1995 & 2012) Economics and statistics division. http://updes.up.nic.in/spa trika/spatrika.htm
- Sharma D (2010) Who will feed Uttar Pradesh? In other words, who will feed India in the days to come? Ground reality: understanding the politics of food, agriculture and hunger. http://dev inder-sharma.blogspot.in/
- Shaw A (1999) Emerging pattern of urbanisation in India. Econ Pol Wkly 34(16):17-30
- Shaw A (2005) Peri-urban interface of Indian cities: growth, governance and local initiatives. Econ Pol Wkly 40(2):129–136
- Siddhartha K, Mukherjee S (1997) Cities urbanization and urban systems. Kisalaya Publications Pvt, Limited, Delhi
- Stage J, Stage J, McGranahan G (2009) Is urbanization contributing to higher food prices? Urbanization and emerging population issues-1. Human settlement working paper series. August, 2009
- Swaminathan MS (2011) Land rush and sustainable food security. The Hindu, Accessed 2 Oct 2011
- Turner BL et al (1994) Global land-use/land-cover change: towards an integrated study. Integrating Earth Syst Sci 23(1):91–95
- UN Reports (10 July 2014) 2014 Revision of the world urbanization prospects. Department of economic and social affairs, New York
- Yin J et al (2011) Monitoring urban expansion and land use/land cover changes of Shanghai metropolitan area during the transitional economy (1979–2009) in China. Environ Monit Assess 177:609–621
- Yin RK (1984) Case study research: design and methods. Applied social research methods series 5. Sage Publications, Thousand Oaks



Nasrin Banu is currently working as Assistant Professor at the Department of Geography, Aliah University, Kolkata, West Bengal. Her area of research is livelihood issues in urban fringe. Presently, she is also focussed on gender and health issues in Geography. She has published several research articles in peerreviewed national and international journals and books. She was adjudged as Young Geographer by Institute of Indian Geographers (Pune) in International Conference, 2016. She was also awarded Post-Doctoral Fellowship by UGC in 2015 and Post-Doctoral Fellowship by ICSSR in 2016. She has completed one Minor Research Project sponsored by ICSSR.



Shahab Fazal is Professor of Geography. He obtained his graduation and post graduation from Rajasthan University. Later he joined AMU and completed his Ph.D. Prof. Fazal started his teaching career in 1994 as Lecturer at Aligarh Muslim University. His research interests are in Land use, Land transformation issues in urban fringe, Remote Sensing and GIS. He has published Fifteen books and more than Seventy research articles in various national and international journals.

He is recipient of prestigious fellowships such as—Fulbright Fellowship (2013–14); Commonwealth Fellowship (2004); Shastri Faculty Research Fellowship (2003 and 2009); Netherlands Visiting Professor (2011); DST-DAAD Fellowship (2000–2001); DST Young Scientist Award 2000; CSIR Fellowship (1991–93). He was also a member of Indo -German Joint Research Team working for DST—DAAD Research Project. He has successfully completed four Major Research Projects sponsored by DST, ICSSR, DST-DAAD and SICI (Canada).