

The Urban Book Series

Andrea I. Frank  
Christopher Silver *Editors*

# Urban Planning Education

Beginnings, Global Movement and  
Future Prospects

 Springer

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Editors

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and Future Prospects

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# Foreword

Shortly after I started planning school in 1975, I chanced on a copy of the record of a seminar held a year prior to mark the retirement of Jack Parker, the first and until his retirement the only, head of the Department of City and Regional Planning at the University of North Carolina at Chapel Hill.<sup>1</sup> The pages of that slim volume opened a window on a profession in turbulence and an educational enterprise that seemed to dispute more than it confirmed. Planners were unsure if their craft was design or social science. They claimed expertise across an incredibly broad swath of domestic policy matters, yet feared inability to defend their claim against attacks from sister professions. They believed they had a special understanding of the public interest that justified leadership in governance, yet found themselves frozen out of the real corridors of power over and over again.

What I didn't appreciate reading *Planning in America* at that time was that the planning profession and the schooling traditions that supported it were in their adolescence: 60 or so chronological years old, but still fighting uncertainties of identity and yet to establish an understood place in the larger society. Among the characteristics of adolescence evident were growth spurts fueled by government investments at a pace never before experienced; wanderlust, with planning education expanding to many countries where it had previously been unknown; and there were arguments about meaning and coherence evocative of late-night college tavern debates.

Planning education's mid-century adolescence gave rise to more serious research methods, to academic journals, to independent academic conferences and to learned societies in the form of school associations. By late century, this now-adult educational enterprise enjoyed global reach and widespread legitimacy, and prided itself on many achievements in economic, environmental and justice domains. A Planning Schools Movement had fostered a worldwide dialogue about how best

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<sup>1</sup>David R. Godschalk. *Planning in America: Learning from Turbulence*. AIP Planners Press, 1974.

to plan and how best to educate planners.<sup>2</sup> That same movement led to the creation of the Global Planning Education Association Network. And, in turn, discussions amongst GPEAN leadership inspired this volume, seeking to draw together planning education experiences from around the world to help frame the planning education choices to be made in the years ahead.

Despite adulthood, planning education remains filled with debates over definition and purpose. With maturity have come new ambitions that test old definitions, and new insecurities as old assumptions are challenged by evolving political and economic realities. New technologies have shaken the norms and structures of educational institutions, and new competitors chase at the heels of planning education from all sides. City government is now seen as a weak manager of growth, praying for the fortitude to control multi-national corporate investment as the prime driver of urban development. Taxpayer revolt has become the new normal and tertiary educational institutions have grown to expect only declining budgets. Online education and cross-border university competition has fostered what often feels like a race to the bottom in time and attention to the individual student. Pressures for recognition and prestige push faculty to publish in international literature that directs them away from the unique characteristics of planning practice in their home countries.<sup>3</sup> We may have been an educational enterprise in turbulence in the 1970s, but in the 2010s we are in the midst of chaos and change is widely recognized as the only constant.

This unique volume tells the stories of the youth, adolescence and adulthood of education for this remarkable city planning profession. A global roster of authors brings the ambitions, successes and failures of planning educators to life with clarity and fascination. The tensions and disagreements of competing schools of thought are laid bare, but never with animosity. Instead, as the pages turn one has the sense of planning educators as a band of warriors challenging common enemies. The enemies are private interest, corporate greed, anti-intellectualism, and political expediency. The fields of battle include not only the classroom and laboratory, but also professional association governing boards, university administrative offices, education ministry bureaucracies, and legislatures.

As I write, the United Nations has just adopted the *Quito Declaration*,<sup>4</sup> setting forth a *New Urban Agenda* for the future of cities worldwide. The *New Urban Agenda* calls for integrative, inclusive, evidence-based urban and territorial planning at the center of the path to securing compact, equitable, resilient, safe and sustainable cities. Planning schools are asked to rise to the challenge of leadership

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<sup>2</sup>Bruce Stiftel and Vanessa Watson. *Dialogues in Urban and Regional Planning*, vol. 1. Routledge, 2005.

<sup>3</sup>Klaus Kunzmann. "Unconditional Surrender: The Gradual Demise of European Diversity in Planning." Keynote address presented to the 18th Congress of the Association of European Schools of Planning, Grenoble, France 3 July 2004.

<sup>4</sup>United Nations, Conference on Human Settlements and Sustainable Urban Development. "Quito Declaration On Sustainable Cities and Human Settlements for All". Resolution A/Conf.226/L.1. Adopted 20 October 2016.

in this work, with unprecedented demand for education of new planners, training of stakeholders and officials and knowledge generation to underlie decision-making, design, and implementation.

For urban planning schools to meet these demands will require great effort, unprecedented resource development, creativity and political savvy. The history and ambitions laid out in this volume represent a wealth of experience to teach how to overcome the challenges. They also suggest that faculties and students drawn to planning schools and the professionals who work with them have what it takes to succeed and lead the way toward sustainable urbanization in the twenty-first century.

Atlanta, USA  
October 2016

Bruce Stiftel



# Acknowledgements

The seeds for this book and first ideas emerged at meetings of the Global Planning Education Association Network (GPEAN) in Ahmedabad in 2009 and Helsinki in 2010 among a group of planning educators who have dedicated considerable energy and time to advance planning education and dialogue on planning practice, pedagogy and research, globally. Buoyed by the success and release of the results from a review of planning education programs globally as part of the 2009 UN Habitat report on Planning for Sustainable Cities, the group was eager to pursue related projects and build a wider knowledge base of planning education. This book owes much to these initial discussions and conceptual ideas. Several of the participants have contributed chapters themselves, but all of them provided vital energy and moral encouragement to help us carry on and persevere with this project.

It is through the Global Planning Education Association Network, with its organization of four world congresses to date, that the global dialogue on planning education which this volume seeks to enliven has been sustained. Credit and thanks must also be given to another organization, the International Planning History Society (IPHS), whose members have been largely responsible for broadening our understanding of how planning education emerged throughout the twentieth century in so many different ways but with a complex set of interconnections we are just beginning to fully appreciate.

This book project required a considerable amount of skilled technical and financial support to bring it to fruition. We would like in particular to thank Tara Hipwood for supporting the process of bringing the manuscript into a coherent and consistent format, performing meticulous editing on the drafts and preparing figures and graphics to required standards. We are also appreciative of the support from our institutions for facilitating editorial meetings. A chunk of extra time and focus could be dedicated to complete the book by a research leave granted by the University of Cardiff to the UK-based co-editor. The staff at Springer embraced the project wholeheartedly through the advocacy of Juliana Pitanguy (Associate Editor). We also want to acknowledge equally essential support from Carmen Spelbos, Editorial Assistant and Mariëlle Klijn, Project Coordinator.

There are many others that deserve our thanks including around four dozens academics working in planning education schools and departments around the world for taking time to respond to our email queries on the their views of future developments in the field. We also like to thank the contributors of chapters who remained patient throughout several years of writing and editing. Our families were understanding when the need to work on this project took us away from them at inopportune times. They recognized, or perhaps we convinced them, that stimulating a broader discussion of how urban planning education could bring the right change agents into the world was our small contribution as educators and scholars to a more livable planet. They supported us in our efforts because they care as well.

# Contents

<b>1</b>	<b>Introduction</b> . . . . .	<b>1</b>
	Andrea I. Frank and Christopher Silver	
<b>Part I Beginnings</b>		
<b>2</b>	<b>The Origins of Planning Education: Overview</b> . . . . .	<b>11</b>
	Christopher Silver	
<b>3</b>	<b>The Department of Civic Design at Liverpool University and Its Lever Professors: Influence and Wider Legacies</b> . . . . .	<b>27</b>
	Paula J. Posas	
<b>4</b>	<b>Educating Planners at MIT: Eight Decades of Changing Cities</b> . . .	<b>49</b>
	Lawrence J. Vale	
<b>5</b>	<b>Jaqueline Tyrwhitt and the Internationalization of Planning Education</b> . . . . .	<b>65</b>
	Ellen Shoshkes	
<b>6</b>	<b>Six Decades of Planning Education in China: Those Planned and Unplanned</b> . . . . .	<b>81</b>
	Li Hou	
<b>7</b>	<b>Tertiary Education and Postwar Reconstruction: The First Australian Planning Programs</b> . . . . .	<b>101</b>
	Robert Freestone, Christine Garnaut and David Nichols	
<b>8</b>	<b>Planning Education in Brazil</b> . . . . .	<b>119</b>
	Maria Cristina da Silva Leme	
<b>Part II Emerging Global Movement</b>		
<b>9</b>	<b>Adapting, Shifting, Defining New Roles: Education for a Maturing Professional Field</b> . . . . .	<b>131</b>
	Andrea I. Frank	

**10 Partnerships in Planning Education: The Association of African Planning Schools (AAPS) . . . . . 147**  
 Nancy Odendaal and Vanessa Watson

**11 Planning Paradigm Shift in the Era of Transition from Urban Development to Management: The Case of Korea . . . . . 161**  
 Mack Joong Choi and Yoon-jung Kim

**12 Development of Planning Education in Postcommunist Poland . . . . . 175**  
 Izabela Mironowicz

**13 Advancing Education for Planning Professionals in Estonia—Between New Qualities and Path-Dependency . . . . . 189**  
 Antti Roose, Garri Raagmaa and Pille Metspalu

**14 Planning Education in Bangladesh. . . . . 205**  
 M. Shafiq Ur Rahman

**15 The Roles of Planning Education in the Decentralization and Democratization Era: Lessons from Indonesia . . . . . 219**  
 Bakti Setiawan

**Part III Charting Future Trends**

**16 Envisioning the Future of Planning and Planning Education . . . . . 235**  
 Andrea I. Frank and Christopher Silver

**17 Educational Partnerships for Innovation in Communities (EPIC): Harnessing University Resources to Create Change . . . . . 251**  
 Marc Schlossberg, Nico Larco, Carissa S. Slotterback, Charles Connerly and Mike Greco

**18 The Collaborative Interdisciplinary Studio . . . . . 269**  
 Michael Neuman

**19 Planning Education with and Through Technologies . . . . . 293**  
 Jennifer S. Evans-Cowley

**20 Educating Code-Switchers in a Post-sustainability World . . . . . 307**  
 Barbara B. Wilson and Timothy Beatley

**21 Are Planning Programs Delivering What Planning Students Need? Perspectives on Planning Education from Practitioners . . . . . 323**  
 Roger Caves and Fritz Wagner

**22 Conclusions . . . . . 337**  
 Andrea I. Frank and Christopher Silver

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**Christopher Silver, FAICP** is Professor of Urban and Regional Planning at the University of Florida, whose areas of teaching include international development planning, planning history and sustainable urbanism. He also has held academic and administrative appointments at Virginia Commonwealth University from 1979 to 1998 and the University of Illinois, 1998–2006. He served for three years as urban development advisor to Indonesia under a U.S. Agency for International Development project. His international experience in Indonesia began in 1989 with a Fulbright Senior Lectureship at the University of Indonesia, and continued with two subsequent Fulbright scholarships in 1992 and 2004 at the Institute of Technology Bandung, Indonesia. He has spent over 20 years researching urban development and decentralization in that country. He is author or co-author of five books, including *Planning the Megacity: Jakarta, Indonesia in the Twentieth Century* (Routledge, 2008) and *Planning and Decentralization: Contested Spaces for Action in the Global South*, with V. Beard and F. Miraftab (Taylor & Francis, 2008) as well as numerous articles, chapters, book reviews, paper presentations and speeches. He is currently completing a monograph tentatively entitled, *Four Centuries of Water Management in Jakarta: Toward Sustainability in a Megacity*. He has held major positions in several national professional organizations, previously as co-editor of the *Journal of the American Planning Association* and founding editor (2001–2016) of the *Journal of Planning History*, and President of the Association of Collegiate Schools of Planning and the Society for American City and Regional Planning.

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# Chapter 1

## Introduction

Andrea I. Frank and Christopher Silver

**Abstract** From humble beginnings at the start of the twentieth century, planning education programs have seen an impressive development and expansion. One hundred years on, there are more than 600 planning education programs offered in about half of the world's countries. As the planning profession is strongly influenced by national planning culture, urbanization trends, and socio-economic milieu, requisite education programs and curricula exhibit a considerable variation of content and format. Despite growing international exchanges amongst academics, planning education and its development remains still poorly understood from a global perspective. Building on the past quantitatively oriented inventories of the education provision for planners, this book reviews the emergence and evolution of planning education curricula through selected case studies and a comparative, longitudinal lens. This introductory chapter elaborates the author's motivation and provides an overview of the volume's structure consisting of three parts: "Beginnings", "Emerging Global Movement", and "Charting Future Trends."

**Keywords** Planning education • Emergence • Program development • Global expansion • Future • Critical review

### Context

Urban planning education has become a pervasive practice throughout the world as urbanization and development pressures have increased over the past half century, and concomitantly demand increased for professionally trained experts to guide

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those processes. Throughout the twentieth century, similar to other professions, the education of planners in most countries was closely linked to the nation state and requisite nation-specific policies and urbanization issues. International discourse and dialogue on urban planning existed and is evidenced in workshops, journals, conferences, lecture, and study tours, but was lifted to a new level when in 2001, the first World Congress of Schools of Planning was held in Shanghai. This congress brought together over 1000 planning educators, students, and practitioners from around the globe to share research findings and experiences on various aspects of planning practice and education.

Two years later, the Global Planning Education Association Network (GPEAN), formed by nine regional planning education associations<sup>1,2</sup> agreed to perpetuate the World Congresses and to undertake collaborative activities to strengthen the global dialogue amongst planning practitioners and educators. One outcome was a chapter contribution on planning education for the 2009 Global Report on Human Settlements for UN-Habitat, entitled *Planning Sustainable Cities* (UN-Habitat 2009, pp. 185–198). This chapter quantified the global scale of planning education. Based upon a GPEAN-sponsored urban planning schools inventory, it identified 290 university level planning programs in developed nations, concentrated in North America and Europe and another 260 in developing nations. This inventory counted those programs that offer urban planning degrees which are recognized by planning education associations and professional bodies. In fact, as planners are also educated via other related disciplines such as landscape architecture, geography, or civil engineering, for example, there are many more academic programs that support planning education that were not accounted in this survey.

Research for the inventory revealed the status quo in planning education provision a decade into the twenty-first century with indeed some significant geographical gaps in coverage globally, e.g., India or selected Commonwealth Countries (see also Commonwealth Secretariat 2011; UN-Habitat 2009, p. 160) and exposed new emergent trends, strengths and weaknesses of curricula. It also highlighted how poorly understood planning education and its development was from a global perspective. Although historians have explored the colorful history and intertwined professional paths of individual planning education champions in the past, this has rarely been put into the context of a globally emerging educational movement.

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<sup>1</sup>The first nine members of GPEAN were: Association of European Schools of Planning (AESOP), Association pour la Promotion de l'Enseignement et de la Recherche en Aménagement et Urbanisme (APERAU), Association of Collegiate Schools of Planning (ACSP), Asian Planning Schools Association (APSA), African Association of Planning Schools (AAPS), Asociación Latinoamericana de Escuelas de Urbanismo y Planeación (ALEUP), Association of New Zealand and Australian Planning Schools (ANZAPS), Associação Nacional de Pós-graduação e Pesquisa em Planejamento Urbano e Regional (ANPUR); Association of Canadian University planning programs (ACUPP).

<sup>2</sup>As of 2015 GPEAN has 11 members: in 2013 the Turkish Planning Schools Association (TUBOP) joined the network and in 2014, the Association of Schools of Planning in Indonesia (ASPI) became also a member.

The immense challenges involved in keeping education relevant requires a constant renewing of curriculum formats and content as well as developing appropriate pedagogies to ensure future planners are fit to plan (or support planning) for sustainable, resilient, smart, and healthy communities and cities. These efforts are juxtaposed by a rich diversity of planning education explained in large part by cultural differences. For better or worse, there is no common planning education model (Frank et al. 2014; Rodriguez-Bachiller 1988). Approaches vary widely, shaped in part by the subject discipline from which a particular planning program developed (e.g., architecture, engineering, landscape architecture, policy, surveying, environmentalism) as well as the context-specific challenges within the country or region where the program resides. A particularly interesting case presented in the 2009 UN-Habitat report is the emergence of planning programs in Poland in the post-Soviet era. During the Soviet-occupancy era, planning was taught as a specialization of architecture or engineering, dealing with the physical aspects of plan development and not as an independent field of expertise. Since 1991, however, more than 40 freestanding planning programs have been established in Poland offering a variety of specializations ranging from a strong design focus to others concentrating on environmental or economic issues, with a final group taking a more generalist approach. None of the other former Soviet-satellite countries have been so successful in transitioning planning education to a market economy and creating such a robust planning education system to date.

Another example of the remarkable expansion of planning education in the past few decades is China, which boasts over 175 planning programs (thereby eclipsing the United States with its 88 or so planning programs). This proliferation of planning programs in China has been fueled by the need for planners to support the country's rapid development processes. Through collaboration with foreign planning education programs, China is developing significant internal capacity to handle national demand. Similar pressures to expand planning education are evident in African nations, but without the international linkages available in China or the internal resources to provide appropriate facilities to support education for planners with very few exceptions (e.g., South Africa). Planning education in Latin American countries has had to deal with a host of politically motivated issues including negotiation, mediation, conflict resolution and consensus-building given the greater power of community organizations and nongovernmental organizations than in the more authoritarian regimes in Asian nations.

The development and evolution of planning education programs, especially in developing regions, coupled with the changing context of planning in developed nations, has not been accompanied by comprehensive critical assessment of how we are preparing planners. Taking on a comparative, longitudinal viewpoint, this volume examines planning education systems and approaches globally, using selected national case studies. Selection of the contributions has been both purposeful and opportunistic and guided by our endeavor to provide context and evidence on important themes throughout the first century of education in the planning field. Several contributions were solicited from authors who presented papers at the World Planning Schools Congress in 2011 and the joint

ACSP-AESOP congress in Dublin in 2013. These papers, which were unpublished, were then developed into more critical and fully fledged chapters. Other contributions were commissioned from expert academics to ensure, as far as possible, global coverage. Within a volume such as this there are naturally limits of what can be covered and we are aware of these shortcomings. There are certainly themes and national case studies that it would have been worthwhile to examine and to include but were not on this occasion for matters of space.

While building on groundbreaking work undertaken for the first global inventory of planning education programs in 2008 (UN-Habitat 2009, pp. 185–198), this volume moves beyond its brief cases and program data, as well as beyond several nationally and regionally focused reviews of planning education conducted before (e.g., Commonwealth Secretariat 2011; Frank et al. 2014; Kumar et al. 2016; Rodriguez-Bachiller 1988). The collection offers a view on planning education from a longitudinal and geographical perspective, thereby examining the past, current practices, and future trends in the field over time and space. It explores the emergence of planning education in the twentieth century, with its rich variation and yet a remarkable degree of cross-fertilization. Understanding the history of planning education is important for several reasons. Many of the current trends in planning have important antecedents in the strategies developed when cities and regions were at a different stage of development. History enables us to recognize and document these antecedents. It also helps to us to understand and assess the dominance of western-oriented paradigms in the initial development of planning education in so many parts of the world. Yet through the educational programs available in North America, Australia/New Zealand, and Europe for students from developing regions, the planning academies that emerged in Africa, Latin America, the Middle East, and Asia have been populated with Masters and PhDs who are able to critically assess, adapt, or even transcend planning theories of the North, to develop their own different ideas and approaches more suited to the situations of the Global South. As such, the book reinforces the importance of spatiality and of local conditions and context to planning and shaping planning education.

## Structure of the Book

The volume is organized into three parts which are bounded by this introduction and a conclusion. The parts follow the development of the discipline: **Beginnings**, **Emerging Global Movement**, and **Charting Future Trends**. Each of these parts begins with an overview essay which provides readers with a critical exposure to relevant scholarship and context, drawing on the detailed case studies of the part and additional research on the broader themes to reveal key issues for—and in—literature and planning education for the time period. Because of the global span of our collection, a note on language is necessary. Terminologies to describe higher education degree provision vary significantly. Within this book we have adopted the US terms using program (rather than course) to signify a degree level study

program and ‘course’ (rather than module) for a topically focused taught unit consisting of lectures, labs, or seminars, or studio. Faculty typically refers to an academic member of staff—although occasionally the term is also used as indicator of a division of the university as in the Faculty of Social Science.

Part I (“**Beginnings**”) focuses on the emergence of planning education programs in the twentieth century as a way to understand the current planning education environment. Contributions in this part examine the simultaneous emergence, under somewhat different conditions, of planning education in the early twentieth century in the USA, United Kingdom, Indonesia, Australia, China, and Brazil. There was a significant transatlantic dialogue that contributed to shaping of early planning approaches, although there were fundamental differences owing to varying legal, economic, political and social factors between the USA and Europe. This part will trace the phases of history of planning education through to the 1980s when there was a virtual explosion of planning education provision in a wider array of countries.

Part II (“**Emerging Global Movement**”) explores how education in urban, regional, and spatial planning has developed in different ways in different countries and continents. The review highlights that there has been no uniform conception of what planning means, nor the tradition in which it is taught—although certain core characteristics seem to be at the heart of planning practice and the education and training for future planners. This part reviews a number of adaptations within planning education in response to changing external conditions at the turn of the twenty-first century. Some of the conditions are practically universal such as increasing resource shortages and the need to make settlements more resilient to the effects of climate change. Others are regionally and locally driven, such as rapid urbanization in Asia, Africa, or South America, population decline and shrinking cities in Europe, or the change from state managed planning regimes to market-driven planning in central and Eastern European countries post communism. The case studies in particular illustrate in greater detail some of the challenges to be addressed in planning education at present, such as:

- Changes in the tertiary sector (massification,<sup>3</sup> internationalization, quality assurance, and accreditation) and their impact on planning programs;
- Diversification and harmonization of educational structures and models in Europe and globally;
- Embedding new planning paradigms of advocacy, participation, and informality (Africa, Latin America, Asia);
- Transition from urban development (engineering) to urban management (Korea);
- Transition from state-planned to market-led economy and implications for planning education (Poland/Estonia);
- Planning education provision in very small countries (Estonia); and

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<sup>3</sup>Terminology used to describe the increase in the proportion of the population obtaining higher education degrees, see, e.g., Trow (2000).

- Use of institutional partners in delivering planning education.

Part III (“**Charting Future Trends**”) is an attempt to envision future pathways and developments. The contributions explore how planning education can be adapted and developed to remain relevant to the development of human environments in the twenty-first century. It is obvious that the world has become a collection of great cities, and through global engagements, many cities have taken on the characteristics of a diverse world. We also know that cities are a key source of the problems (pollution, congestion, resource depletion, and destruction) we face and some past planning decisions have diminished rather than improved living conditions. We know that the way we do planning now (often in disciplinary silos, rather than in interdisciplinary teams) is linked to conventional practices developed during a period when the implications of those practices were much less apparent. Yet, despite considerable theoretical advancements and many technological innovations, the content and methods we use to ‘teach’ remain heavily dependent upon that traditional approach. When we look to the past, we find the basic premises underpinning the building of our cities included unlimited resources, technology as the answer to all problems, and unlimited growth potential. Are those premises still valid? It is useful to ask planners and other professionals engaged in urban and societal issues to imagine where we will be 50 or 100 years from now. What should future cities (large and small) be premised on in a post-fossil fuel era, with new technologies, considerable levels of international migration and mobility, aging populations, growing levels of non-communicable diseases, and food and resource insecurities? What should education contain and address for those involved in designing and managing these future settlements? When we think about what kind of planners we need, is it still relevant to have a planning discipline in parallel to engineering and architecture? Or, is there a need for a major shift in how we prepare planners for the future? For example, how do we bring the biologists, climate change scientists, engineers, designers, architects, planners, social scientists, and health professionals into a collaborative partnership to design and manage sustainable cities? We hope that the contributions in this final part which examine, for example, innovations in pedagogy that seek to strengthen links between society, science, and education but also efforts to embed education for sustainability and climate change adaptations, spur a critical dialogue from within and beyond the academy.

## **Renewing Planning’s Vision**

From its earliest days, the planning education project had idealistic goals and visions for a better world. We hope in reminding ourselves and future generations of educators and planners of these lofty ideas and contextualizing the development thus far will enable—indeed encourage—this community to not only react but guide future developments and return to a leadership role in education and, in turn,

in shaping cities. And, while it remains a fact that different localities will have different needs in terms of planning, we nevertheless are venturing to suggest that a century of planning education has also resulted in the development of some signature pedagogies and approaches that should be integrated in all curricula. We thus make some tentative suggestions for content and competencies we feel should be universally included in curricula in order for planning education to meet future societal needs. Above all, tensions and turf battles with other disciplines must be transcended as interdisciplinarity, co-creation, and collaboration will be the tools to make future cities work.

This book is written for the dispersed and varied community of fellow planning educators seeking ideas for future programs, for planning students seeking to gain a deeper understanding of their field and practitioners interested in the interplay of practice and education. We believe that the collection of material in its current format and combination offers new insights and knowledge on the complex evolution of planning education over time and space. Reflecting on the development of planning education over the past century, the essays provide a rich story of resourcefulness, leadership, and adaptive resilience among the planning education community. This should serve as a beacon of hope and inspiration for future years and in cases when planning as a discipline might not be given the recognition and space one would hope for.

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**Part I**  
**Beginnings**

# Chapter 2

## The Origins of Planning Education: Overview

Christopher Silver

**Abstract** Planning education in the early twentieth century developed in response to the need for professionals in architecture, landscape architecture, engineering, public health, and law to understand and address the unique challenges of rapidly growing cities and regions. It was in the United States and the United Kingdom that the first standalone planning education programs flourished prior to World War II. Former colonial nations expanded planning education initially on the model provided by the West, often because their leading educators were products of the Anglo-American system. The proliferation of planning education programs in Eastern Europe, sections of Asia and Africa and especially in China since the end of 1980s owes to increased global engagements coupled with continuing challenges of urbanization. Throughout the twentieth century, transnational exchanges of ideas and strategies have helped to shape the global planning education movement.

**Keywords** Anglo-American origins • Transnational exchanges • University of Liverpool • Colonialism • GPEAN

### Introduction

In most societies, identifying the origins of city planning requires examining its earliest human settlements. Planmaking was an established art long before even a modest portion of human settlements could be regarded as urban. The formal processes of training to create a body of professionals engaged in the physical, social, and economic transformation of these urban places according to preconceived strategies (that is, planning education) are of much more recent origins, however. In the United States and Europe, the origins of planning education coincided with the flourishing of the modern city planning movement in the early

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twentieth century, a movement prompted by concerns over congested and unhealthy conditions in growing industrial cities. In other world regions, including South America, Africa, and Asia, urban development took off later, as did planning education, initially as a colonial import but eventually through the intervention of external agencies or indigenous efforts to better control emerging urban challenges. Often individuals trained in the West introduced the developed world models but also helped to shape new indigenous planning education programs.

As this overview of the origins of planning education will show, it is possible to identify three rather distinct phases in the development of planning education from a global vantage point. The first phase, running from the early 1900s through the 1940s, saw the emergence of what is best termed the Anglo-American epoch, whereby the pioneering education programs geared to training planners were largely confined to North America and the British Isles, and diffused through their colonial connections to selected places in the developing world. The demise of the colonial empires following World War II triggered a second phase characterized by the emergence of indigenous planning education initiatives outside the West and proliferation of Anglo-American planning education to address postwar reconstruction. In the US, long festering problems of poverty, inner city decay and stifled urban development owing to nearly two decades of economic depression and wartime conditions, led to a growing demand for professional planners—especially at the local and state levels—from the 1950s through the 1970s. In the post-Soviet era beginning in the 1990s, in what represents the third phase, there was a new impetus in planning education to enable Eastern European nations to more fully integrate into the global economy. The same can be said about China in the post-Mao regimes, which advanced planning education in line with its greater engagement within the global marketplace, and as urbanization processes advanced so dramatically.

Pioneer planners in all world regions were drawn from various disciplines, including civil engineering, architecture, landscape architecture, surveying, public health, and the law. They drew upon their disciplinary training and experiences to devise interventions. Select educational institutions offering professional programs in these fields, initiated the first courses to offer a “planning” component to their graduates. From these humble origins a distinct discipline of planning emerged early in the twentieth century. Quickly, however, the demand for trained urban professionals grew beyond the capacity of these related disciplines to respond effectively. The result was the creation of standalone city planning programs in many Western countries in addition to programs offering planning specializations as part of other degree programs.

The historical origins and early evolution of planning education exerted a profound and global impact on planning because these early initiatives were not done in isolation. It is important to acknowledge that throughout the twentieth century global exchanges and international professional linkages were important factors in advancing planning education. As the cases highlighted in this section demonstrate, there was a significant and continuous degree of sharing of planning expertise across national and cultural borders. The remarkable continuities of proposed

planning interventions in the diverse circumstances of urban development in various global regions were advanced through these interchanges. There were at once both strengths and inherent dangers in this transnational planning dialogue. On one hand, the transnational dialogue facilitated sharing of best practices. Yet, some of these imported practices could also be a source of perpetuating problem conditions when they did not account for varying local circumstances. This was especially the case when practices that seemed sound for developed urban societies were applied uncritically in resource-deficient and rapidly growing cities and regions in the developing world. Under these circumstances, the powerful force of established and formal planning practices often displaced local traditions that might have engendered more effective interventions.

Overall, however, the planning education movement that blossomed globally in the post-World War II era advanced the practice of planning by producing a vast army of urban professionals who worked directly with citizens and government leaders to advance the justification for, and acceptance of, planning. This postwar global boom in planning education was built upon the foundation of planning education programs already well-established in the United States and in the United Kingdom. As will be discussed below, the planning education movement has become truly global in scope.

## Anglo-American Origins

The first national conference on city planning in the United States was held in Washington, DC in the Spring 1909 (Meck and Retzlaff 2009). It brought together leading planning practitioners, and some well-placed politicians to explore the challenges presented by the problems associated with unregulated urban development, with particular attention to congestion. Although aspects of planning had been practiced in US cities for at least one half century, the 1909 DC gathering was the first time that the professionals from many associated disciplines collectively engaged in a critical discussion of the current state of practice, the challenges planning confronted, and how the emerging profession might chart its future. The organizer of the 1909 national conference, Benjamin C. Marsh, was motivated by the problem conditions evident in congested US cities but also inspired by the promise offered through planning practices he had witnessed firsthand in Europe. In 1907 and 1908, Marsh toured European cities and cataloged his findings in *An Introduction to City Planning* (1909 (reprinted 1974)), a book released in concert with the national conference. Concurrent with the Washington DC conference, 1909 also saw the introduction, in England, of the first national legislation with the term “planning” in its title. That same year the architecture program at the University of Liverpool established a Town Planning and Civic Design degree program. At Harvard University (USA), James Sturgis Pray, a landscape architect by training, premiered a course entitled “Landscape Architecture 10—Principles of City Planning” (Alofsin 2002, p. 41-46). Within the Horticulture Department at the

University of Illinois, a leading planning practitioner was hired as the first Professor of Civic Design in the US in 1912. University College London followed in 1914 with an initial offering in planning instruction (Collins 2016), and on the continent, the University of Karlsruhe began to teach planning in 1915 (cited in Frank et al. 2014, p. 37).

The pioneer planning educators connected to all of these initiatives were in regular communication with each other about their work. Given the transatlantic dialogue underway at this time regarding urban reform approaches such as the garden city scheme, housing regulations, zoning, and open space planning for cities, it is not surprising that these initial forays into planning education occurred simultaneously on both sides of the Atlantic. Yet, there were fundamental differences between planning practices in the United States, with its tradition of relative weak state intervention into urban processes compared to Europe with its legacy of centralized control. Marsh's catalog of cases from Europe in *An Introduction to City Planning* (1909 reprinted 1974) underscored the differences. What they shared in common was that these early efforts in planning education developed from similar disciplinary perspectives. New planning courses in architecture and landscape architecture programs were not intended initially as a new discipline but rather to broaden the scope of design education to better prepare graduates to practice in an urbanizing society. With few exceptions, this process of incremental development of curricula within these disciplines characterized the bulk of planning education advances through the 1930s. Only later did US planning education programs emerge separately from the design (or engineering) disciplines as self-sustaining units. After World War II, in both the US and the United Kingdom, planning education stepped out from the shadow of the design disciplines to fashion distinctly different training programs. It is useful first to examine several examples of the pioneering planning education, in the US and England, that supported the transatlantic planning dialogue as a prelude to the global dispersion of planning education in the post-World War II era.

When in 1909 Harvard's landscape architecture department chair, James Sturgis Pray, offered the first course completely devoted to city planning—Landscape Architecture 10—Principles of City Planning, this served as the foundational component of what became the first formal planning program in the United States in 1923. Pray had graduated from Harvard in 1898 and joined the nation's top landscape firm, the Olmsted Brothers, a firm that also functioned as a planning consultancy. He stayed with them until 1904 when he formed his own firm, which expanded in 1906 to a three-person partnership, Pray, Hubbard, and White. Pray began as an assistant in Harvard's landscape architecture program in 1902, moved to the rank of instructor in 1903, and then became assistant professor and chair in 1905, replacing Frederick Law Olmsted, Jr. as the Charles Eliot Professor of Landscape Architecture chair in 1915, a position he later passed on to his practice partner, Henry Vincent Hubbard. It is Hubbard who is credited with separating the city planning program from landscape architecture in 1923, making it the first freestanding master-level planning program in the US (Alofsin 2002, p. 65).

Pray's passion for planning to treat the wide ranging problems of the modern city obviously had been nurtured through his long association with Olmsted Brothers. Pray not only taught the new city planning course, and simultaneously carried on a landscape practice, but he also wrote extensively on the subject of city planning. In a 1914 speech to the Annual Conference of Mayors held in Aurora, New York, Pray conceptualized the planning function and how he intended to train the planners at Harvard in this new field. He emphasized the critical role of collecting data through various surveys in order to effectively plan for cities. He stressed that while the survey techniques might be standardized, the results were likely to be unique for each city. He called for topographical surveys incorporating both the natural features of the land as well as the built environment. Sociological data would be secured through surveys of population, housing, school, sanitary, recreation, and traffic conditions and even what he referred to as delinquency and vice (namely crime data). There was a need to gather data on local economic and financial conditions, and to understand how local regulations addressed the problems revealed through the surveys. Although a practicing landscape architect sensitive to the aesthetic component, Pray stressed the need for efficiency as the primary goal of planning, not in lieu of beautification, but as a necessary antecedent. As he observed, "...a city planned perfectly for its practical purposes, like a sailing vessel, will of necessity possess the highest type of organic beauty, without which all other beauty in the city plan is of little value" (Pray 1914).

In collaboration with Harvard librarian and future wife of Hubbard, Theodora Kimball, Pray published in 1913 a reference source for planners entitled *City Planning: A Comprehensive Analysis of the Subject*. Later Pray served as President of the American Society of Landscape Architects (1915–1920) but also was a founding member of the American City Planning Institute, and held memberships in the American Civic Association, the British Town Planning Institute, and the International Garden Cities and Town Planning Association. These affiliations linked Pray directly to the transatlantic planning dialogue which decidedly influenced how planning was taught at Harvard.

The Harvard experiment in city planning was launched in full knowledge that the University of Liverpool (England) also had established a city planning program within its architecture faculty. As Alofsin (2002) pointed out in his history of the design fields at Harvard, "Pray and Pond both had copies of the original prospectus from the Department of Civic Design for 1909–1910" and continued to study this new academic initiative (Alofsin 2002, p.44). Later in 1911 and 1912, Pray conducted an extensive city tour of Europe to collect teaching materials, including stops in thirteen countries. Materials collected on the European tour became the core of the landscape architecture and city planning collections in Harvard's School of Architecture library. It also ensured that future planning students would be well versed in the European models that shaped the formative years of planning education in the US as well as England.

There were several other pioneering efforts in planning education in the US in this era. In 1913 the University of Illinois hired the prominent city planner,

consultant, and author, Charles Mulford Robinson as Professor of Civic Design. He produced some of the most widely read treatises on planning and city beautification, initially intended for civic organizations but readily available for use in the classroom (Robinson 1916). As with Harvard, the Illinois planning education initiative centered in the landscape architecture program, a program housed within its Horticulture department rather than its longstanding architecture program. Robinson's untimely death in 1917 cut short his influence on the academic program at Illinois. But in 1918 Illinois secured a worthy replacement. Harland Bartholomew, a rising star among planning consultants based in nearby St. Louis, would become one of the nation's most prolific planning practitioners. Bartholomew, the trained civil engineer, broadened the scope of planning education at Illinois to match the breadth of his planning practice during his four decades of teaching there. Credit must be given also for sustaining the planning education components of the landscape architecture program to its director, Karl Lohmann, who practiced planning in Illinois and who published one of the first planning texts intended to be used in the classroom (Lohmann 1931).

Architecture programs also nurtured planning curricular developments. At the University of Florida, the impetus to offer planning education came when Rudolph Weaver was hired as director of the newly created School of Architecture in 1925. The university hired Weaver in two capacities, one being the school's director and the other as the architect for Florida's Board of Control, the organization that managed construction on all of the Florida public universities. He came to academia after a 20-year professional career that included designing buildings on several university campuses. Weaver wanted architecture students to gain knowledge in planning. Within the first year of his directorship, new courses on planning and physical design were taught by his faculty, along with two courses in the Landscape Architecture program, one entitled "City and Town Planning" and the other "Suburban and Rural Planning." The College of Business Administration and the College of Engineering also offered courses related to planning. Weaver served on the American Institute of Architects' Committee on City, Community and Regional Planning and was chair of the local planning board in the late 1930s. He spoke publically and enthusiastically about the necessity for cities to develop master plans, to embrace planning as a dynamic process of regulating development to realize the goals of the city beautiful.

Three new planning programs launched in the 1930s, the first at the Massachusetts Institute of Technology in 1933, and then at Columbia University and Cornell University, quickly became leading centers of planning education in the US. Lawrence Vale's case study of MIT's program (see Chap. 4) shows how its curriculum provision became more specialized and sophisticated as the demands for planning expertise burgeoned during the Great Depression and how the program served as the training ground for future planning educators and administrators. Like elsewhere, programs at these universities derived from the suite of courses covering planning issues established in related disciplines earlier. For example, Cornell's first course on the history of planning was offered by Everett V. Meeks in 1918. An urban planning seminar course was added in 1928, and in 1935 a grant from the

Carnegie Corporation supported instruction in regional planning, an emerging field in the 1930s, under a joint architecture and engineering program.

At Columbia University, the development of the planning program followed the trajectory of the Harvard and Illinois models, beginning with two required courses for its majors in town planning (or civic design as it was referred to then) in 1912 initiated by the Director of the School of Architecture, Austin William Lord. Joseph Hudnut, Dean of the School of Architecture, began recruiting full-time planning faculty in 1934 and by 1950 Columbia had in place “a full-fledged, degree-granting program—the Master of Science in Planning and Housing,” as reported by Goldberg and Beauregard in an unpublished text from 2008 (pp. 1–7).

Despite their academic orientation in architecture, Columbia’s faculty believed that planners needed more than design training. The town planning courses embedded into their architecture curriculum were intended to “provide instruction in defining the economic necessities of the community; the safety, health, and rights of the individual; and the devising of plans to satisfy these demands” (Reidenburg 1954, p. 28, cited in an unpublished draft by Goldberg and Beauregard). The broadened planning education topics reflected in Columbia’s curriculum adhered closely to recommendations that came out of a historic gathering of practitioners and academics it hosted in 1928, with support from the Russell Sage Foundation. The purpose of the 1928 Columbia conference was to examine the state of planning education in the US. The Russell Sage Foundation was a logical supporter of the conference since it had deep interest in advancing the state of planning education as the sponsor of a path breaking regional plan for New York City in the 1920s. The plan had been prepared with input from leading US planners such as Thomas Adams, Frederick Law Olmsted, Jr., and John Nolen, all of whom attended the 1928 conference. These planners acknowledged the valuable contributions derived from working in an interdisciplinary manner on the plan, bringing together “experts in social welfare and economics, transit and transportation, political science and public administration, industrial management, and public health” (Scott 1971, p. 265). Having themselves been largely “self-taught” in city planning, the regional plan consultants recognized the need not only to expand opportunities for formal city planning education but also to broaden its scope, and to more precisely articulate what separated planning from the related professions that had nurtured it in the US.

One outcome of this gathering was a redefinition of the scope of planning instruction and research that moved beyond its longstanding grounding in landscape architecture, engineering, and architecture. As the report from the conference suggested, “the time had come when more ample provision should be made for fundamental research, for the development of the profession and for the training of younger men entering it” (Scott 1971, pp. 265–267). The implication of emphasizing research and professionalization was to move planning education beyond its purely design-based roots. The conferees posited that “city planning was not merely a special field for the application of the skills of any single profession, . . . but must draw upon the several arts and sciences, including architecture, political economy, the science of government, sociology, sanitary science, physical geography, and

publicity, public movements and organizations. Even though it might be impractical...to be a master of all aspects of city planning,...a master of one, at least, which provides training in design and, in addition, should possess a sufficient understanding of the manner in which others impinge upon [the] total problem to be able to coordinate the efforts of other specialists in any project of research, teaching, or practice” (quoted in Scott 1971, p. 266). One follow-up action from the 1928 conference was distribution, under the auspices of the National Conference on City Planning, of a questionnaire to approximately 200 selected colleges and universities to determine the extent of instruction in city planning and related disciplines. The results were published in *City Planning* in two installments in January and July 1929. Writing in 1943, Harvard University’s planning program chair J. Gaus captured the importance of the 1928 Columbia University gathering as follows: “The men who have thus far been leaders in city planning had no well-rounded course of specific training because none was available. They began as engineers, architects or landscape architects, as the case might be, and cultivated for themselves—and usually by themselves—more or less special ability in the broader field of city planning.” Unfortunately, Gaus continued, “these self-trained men, who have acquired the experience requisite to the making of valuable contributions to the science and art of city planning, have to devote themselves to the daily practice of their several professions, and are therefore unable to do what is needed in the way of developing and disseminating fundamental knowledge about city planning” (Gaus 1943, p. 48).

Hubbard at Harvard anticipated the call for devising such a unique city planning curriculum. As he wrote in 1927 in an article in *City Planning*, the official publication of the American City Planning Institute, “there does exist a very important and rapidly growing mass of knowledge which is not engineering, which is not architecture, which is not law, which is not medicine, but which furthers certain general goods toward which, each in its specific way, all these specialized professions and a good many more are contributing” (Scott 1971, p. 266).

In addition to Harvard, the new planning program at MIT and the expanded offerings of Columbia University fully embraced this broadened vision of planning education. Thomas Adams, who had been part of the 1928 conference, was recruited in 1932 by William Emerson, Dean of MIT’s new School of Architecture “to outline a new course in city planning” (see Chap. 4, p. 50).

Planning education in the early decades of the twentieth century in the US also aimed at creating a more planning savvy public. As Henry and Theodora Hubbard documented in their classic work, *Our Cities To-Day and To-Morrow* (1929), various local organizations across the United States embraced the mission of educating the public about the meaning and value of city planning. There was, for example, the City Parks Association of Philadelphia founded in 1888 but also groups such as the Civic Improvement Association of Boulder, Colorado, the Buffalo City Planning Association, the Kessler Plan Association in Dallas, a planning association in Schenectady (NY) and similar groups in Johnstown, Pittsburgh and Altoona (PA), Cincinnati (OH), Jacksonville (FL), Savannah (GA) and Tulsa (OK) (Hubbard and Hubbard 1929, pp. 77–82). The most notable

example of public planning education was the campaign orchestrated by Walter Moody in conjunction with Daniel Burnham's Plan of Chicago. As historian Carl Smith notes, Moody's campaign included a mixture of public lectures (500 in all to more than 150,000 listeners over a 7-year period), a series of books to explain the content, and potential benefits, of implementing the plan (which, of course, required supporting a large bond issue), and the multi-edition *Wacker Manual of the Plan of Chicago*, named for the chair of the Chicago City Plan Commission, Charles Wacker. One edition of this was modified for use in Chicago's public schools. Moody prepared a film, *A Tale of One City*, which was shown in theaters throughout the city and planted articles espousing the Chicago plan in magazines and newspapers (Smith 2006, pp. 122–125).

As documented in Paula Posas' study of the pioneering planning program at the University of Liverpool (see Chap. 3), the evolution of educating planners from being an extension of architecture to one which maintained one foot in the design disciplines and another in the emerging social sciences in England mirrored the developments in the USA. It is also evident that the Lever chairs at Liverpool were being recruited based on their accomplishments in practice but then, in turn, expanded the quantity and quality of planning education throughout the UK. Liverpool had strong connections to emerging US programs, and a profound influence on planning practice and education worldwide. Following the launch of the Liverpool program in 1909, University College London followed quickly in 1914 with a second postgraduate program. In 1939, several more universities, including Newcastle, Manchester and Leeds, and the Edinburgh College of Art began to offer planning curricula (Healey and Samuels 1981).

## Planning Education in the Post-world War II Era

The marriage of the British and US planning education efforts influenced planning education in the developing world. Ellen Shoshkes explores this nexus in an assessment of how British planning educator Jaquelin Tyrwhitt and Harvard's Martin Myerson, along with other US and British colleagues, helped to create the first school of planning in Southeast Asia at Indonesia's Institute of Technology, Bandung (Chap. 5).

Across Europe, the postwar period witnessed a range of responses to the need for trained planners. Remarkable is the wide variance in time frames when there were standalone education programs in planning set up in cross-national comparison. In Portugal, for example, modules entitled "Improvements in Urban Planning" and "Urbanology" appeared in the curriculum of the University of Porto, Faculty of Engineering and the College of Fine Arts in Lisbon and Oporto, respectively, in the mid-1940s. But it took another 30 years for a fully articulated specialization in spatial planning to appear in several universities (Frank et al. 2014, p. 49). In Turkey, the first 4-year undergraduate planning program, using the design studio model and concentrating on physical and design planning, began in 1961 at the



Middle East Technical University in Ankara. The first German planning education program was established at the Technical University Dortmund in 1969 (Frank and Kurth 2010). In Greece, where planning education is to this date offered for the most part as specialization of engineering and architecture programs, an undergraduate standalone planning program was established only in 1989 at the University of Thessaloniki (Gospodini and Skayannis 2005). In Spain and Finland, despite established planning practices, planning still struggles to gain recognition as an independent field of study and only recently the first postgraduate planning programs were launched (Frank et al. 2014).

Poland offers another model, given the more than four decades it was under Soviet rule after 1945. As early as 1913, the Lvov Technical University had created a Department of Town Building. After World War II, it became a specialization available to architecture and engineering students. "In 1958, the Polish Academy of Science established the Committee for Spatial Economy and Regional Planning (CSERP)...with the objective to inspire and define new studies in spatial economy and planning in Poland" (Frank et al. 2014, p. 63). After 1989, the ground work of the CSERP resulted in two 5-year programs in spatial planning and land economy. In Slovakia, the Institute of Urban and Municipal Development was created within the Faculty of Architecture and Civil Engineering at the Slovak University of Technology in 1948. "Consistent with central European culture, spatial planning was conceptualized as a part of architecture" (Frank et al. 2014, p. 68) but similar to Poland it took until 2002 to create standalone planning degrees.

Planning education in the UK and in the United States expanded rapidly from the 1940s onward. In the US, there were thirteen new master planning programs created between 1940 and 1949, including full degree offerings from two of the pioneering institutions (Illinois and Florida). Unlike the pioneering education initiatives though, the vast majority of these were linked more to social science foundations (rather than to architecture, landscape architecture or engineering). This included master-level programs at the University of Wisconsin, the University of Chicago, Rutgers University, the University of California, the University of Oklahoma, and the University of North Carolina. Three more architecturally based programs started in the early 1950s at Yale University, Georgia Institute of Technology and the University Southern California, with the University of Pennsylvania program emerging out of its College of Fine Arts. From the 1960s through the 1990s, 68 new master programs were launched in the US, forty-four of these (64%) being based in urban universities and typically connected to the social science and public policy orientation (as contrasted with the early connections to design fields) that now dominate the US planning education emphasis (Adams 1954).

The evolution of the planning curriculum at the University of Florida from the 1940s through the 1980s exemplifies the transition from a design-based approach to one more deeply grounded in the social sciences and oriented to planning practice. In the late 1940s, Dean of Architecture William Arnett was determined to have the UF planning program recognized alongside those recently established at the University of North Carolina and Georgia Tech. He assembled from across campus

an interdisciplinary faculty, including not only from Architecture and Landscape Architecture, but also Sociology, Real Estate, Economics, Forestry, Public Health, Agricultural Economics, Civil and Industrial Design, and both Education and Physical Education, to support a Community Planning program. This new graduate program, launched in 1955, was short-lived. Soon after its creation, when one of its four lead faculty members left to pursue a doctorate, the new Architecture dean decided not to refill that faculty position and to terminate the program. Several years later, the Florida legislature authorized funding for a planning program but the funds went instead to Florida State University whose master program was founded in 1965.

It was in 1970 that UF looked to re-establish its planning program in response to growing national and regional demand for qualified planners. UF secured the prominent Washington-based planner Carl Feiss to head an urban research institute and to develop a curriculum in urban studies and planning. Feiss had been a founding faculty in Columbia University's planning curriculum in the 1930s and had previously worked for various planning organizations in Florida. The opportunity to close his career at UF was attractive. Although trained as an architect, his inclination was decidedly interdisciplinary and oriented toward practice.

But at the age of 63 in 1970, Feiss seemed an unlikely candidate to launch, or to re-energize, Florida's planning program. When the decision was made to create a degree-granting program, UF secured Earl Starnes, the state planning director and a UF alumnus, to direct the program. Starnes and Feiss were central figures in Florida's pioneering planning legislation in the 1970s. In 1972, under Governor Ruben Askew, the Division of State Planning was created within the state's Department of Administration and headed by Starnes. The new planning faculty at UF were key players in Florida's "quiet revolution" in land planning that led to passage of the "landmark" Local Government Comprehensive Planning Act in 1975 (Pelham 2007, pp. 1–9). These same Florida planning faculty also played pivotal roles in formulating Florida's Growth Management Act in 1985, under Governor Bob Graham, who had taken courses with several UF planning faculty (Rubino and Starnes 2008, pp. 215, 245, 249–250). These links to the growth management movement in the state infused within the planning program at UF a focus on applied research, a blend of design and policy training with a studio context, and the value of student engagement with Florida's growth challenges. In turn, Florida local governments and regional agencies, and development firms, absorbed as many planners as the UF program could produce.

Similar transformations were also underway in the UK. The new planning act of 1947 expanded the demand for professional planners which stimulated the creation of new programs. A shift from the architecture, landscape architecture, and engineering orientation to a more interdisciplinary orientation of the master and bachelor programs took place as "planning practice began to embrace the rational-planning model as well as to consider issues such as transport, social issues and policy" (Frank et al. 2014, p. 74). By the 1970s there were eighteen accredited graduate offerings, and another ten undergraduate planning programs together generating more than 350 planners each year and these programs expanded

enrollments to reach roughly 3,000 students enrolled in Royal Town Planning Institute-accredited programs by the early 2000s (Shaw et al. 2003).

As previously noted, many alumni from UK and US programs went on to spread planning education internationally (see Chaps. 5 and 6). Chinese pioneers in planning education are typical of this. Hou shows that multiple traditions shaped modern planning education in China. Particularly, these included the pre-revolution influences from the west as well as Japan, the post-revolution influences of the Soviet state planning system, and then following the Sino-Soviet break, the increasing importance of indigenous influences beginning with the introduction of a market economy component. Hou stresses the pivotal role of the fourteenth China Community Party Congress in the 1990s in launching the modern planning movement, led by Tongji University in Shanghai.

The first three master planning programs in Australia, at the South Australian School of Mines and Industries (SASMI), the University of Sydney and the University of Melbourne, were all post-World War II initiatives. As Freestone, Garnaut and Nichols note in their case study (Chap. 7), the half century leading up to these new programs involved a diffuse array of initiatives to promote interest in, and competency to undertake, planning through courses in existing architecture programs, public lectures and exhibits, and the ambitious few taking correspondence courses through the UK-based Town Planning Institute. Through the sponsorship of the Royal Australian Institute of Architects, Gavin Walkley studied the British system of planning education and then brought it back to South Australia through the new program at SASMI. The University of Sydney's program emerged out of its extension course program with the backing of the Town and Country Planning Advisory Committee, a ministerial advisory body of New South Wales, and commenced within 3 months of Denis Winston assuming the position of Chair of Town Planning within the Faculty of Architecture in early 1949. In Melbourne, the influence of the British Town Planning Institute curriculum was pivotal in the establishment of a Town and Regional Planning program through the School of Architecture. In many respects these three pioneering programs in Australia were extension of the University of Liverpool civic design course since several of their graduates played such pivotal roles in promoting planning education there.

Planning education in twentieth century Brazil evolved in ways unlike any of the cases previously noted. As Cristina de Leme notes (Chap. 8), planning was embraced under the broader umbrella of urbanism and was solely the province of civil and architectural engineering. This helps to explain why the most widely cited example of planned intervention in the early twentieth century was the construction of Rio de Janeiro's Central Avenue. By the 1920s, there was a growing cohort of urbanists, drawn from civil and architectural engineering, and architecture. They focused on reshaping the central city areas in Brazil's main cities. They prepared plans, but regarded their work as most appropriately defined as urbanism rather than planning per se. It was the creation of an urban studies center in the School of Architecture and Urbanism at the University of Sao Paulo that launched the Brazilian equivalent to planning, "combining education and practical work in partnership with several local authorities in Sao Paulo State" (Chap. 8, p. 129). The

military coup in March 1964 led to centralized interventions by the national government which made it appear that planners were instruments of the authoritarian government and led to urban planning being indiscriminately associated with authoritarian and repressive practices. The denial of a certain type of planning was the denial of all types of planning. Since the 1980s, Brazil's process of re-democratization, the financial crisis of the State, and economic restructuring generated both expansion and fragmentation of urban planning education. The expansion is evident in the growth of the Association of Research and Post-Graduate Courses on Urban and Regional Planning (ANPUR) as a group of five programs in 1983 to more than 66 by 2014. The fragmentation has become evident in the highly diverse profiles of these new programs, some focusing on urban development, others on environmental planning or regional planning, and some with an orientation to the broader field of urban studies. As the cases in Brazil and China demonstrate, the emerging form of planning education was directly connected to the prevailing political ideology.

## **Toward the Current Condition**

Although the historical traditions in planning education continue to exert influence on current conditions, the emergence of national and international associations of planning educators, beginning in the United States in the late 1960s, demonstrated that educators, as well as practitioners, had achieved a state of self-identification. The Association of Collegiate Schools of Planning (ACSP) constituted the academic offshoot of the professional American Planning Association (APA). ACSP's creation ushered in an era of network formation amongst planning education providers at the national and regional scales. Several other national and regional associations appeared in the 1980s, including the National Association of Postgraduate programs in urban and regional planning (ANPUR) and the French speaking institutions in France and beyond (APERAU), as well as the Association of European Schools of Planning (AESOP). As its founding president, Klaus Kunzmann acknowledged, ACSP provided the model that European planning educators emulated when he and Patsy Healey returned to Europe from participating in ACSP's Atlanta conference in the 1980s. Following in the 1990s and early 2000 were the Asian Planning Schools Association (APSA), the Association of Canadian Planning Programs (ACUPP) (also an offshoot of their professional planning organization), and the Association of Latin American Planning Schools (ALEUP, founded in 1999), as well as organizations in Turkey, Indonesia, Africa, Australia, and New Zealand.

In 2001, at the first world congress of planning education hosted by Tongji University in Shanghai, the Global Planning Education Association Network (GPEAN) (see Chap. 1) was constituted by the nine education associations that were represented there. Now numbering eleven recognized planning education associations, representing nearly 700 individual programs, GPEAN underscores the

global breadth of the planning education movement. Ironically, the host nation of the first world planning schools congress in 2001, China, remains outside GPEAN even though its 193 planning programs by 2012 makes it the largest single national planning education schools cluster. Chinese planning schools are also for a variety of reasons not engaged with APSA—the Asian Planning Schools Association like those from Japan or India. As Tan noted, the planning education movement in China, led by the National Steering Committee of Urban and Rural Planning Education, continues to be challenged to bring enough education programs up to global standards. As of 2014, only 25 master programs in China had been accredited by the national committee (Tan 2015, pp. 4–5).

The formation of the global network as well as the growth of the national and regional association cannot be viewed as a cause for an expanded planning education provision, although in some cases they have protected planning education from being targets of reduced educational funding. Perhaps more importantly, the associations have stimulated scholarship through meetings and conferences which has enabled planning educators to continue the tradition of sharing expertise nationally and transnationally. As the cases in this section demonstrate, there is a high degree of diversity in the circumstances that influenced the evolution and current approaches of planning education when viewed from a global perspective. This will become even more apparent as we broaden the geographic scope of planning education as it is practiced today. But first it is essential to begin with the historical legacy of planning education as revealed in the chapters of this Part I of the volume that carry forth the “beginnings” of that global endeavor.

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# Chapter 3

## The Department of Civic Design at Liverpool University and Its Lever Professors: Influence and Wider Legacies

Paula J. Posas

**Abstract** Soap manufacturer William Hesketh Lever funded the establishment of the world's first known university department of town planning in 1909. As part of this pioneering venture, he also funded a Chair in Civic Design which a chain of eminent men would hold over the next 100 years. These so-named Lever Professors played an integral role in the development of the Department of Civic Design, town planning education, and town planning more widely. Though a number of their accomplishments are known, many are not, and even less is generally known about their backgrounds and personal qualities. Such knowledge allows for greater appreciation of their efforts, contributions, and legacy as it is experienced today. Also explored are the Lever professors' changing concepts of civic design and some overarching themes. Insofar as historical research invites learning from the past and contemplating the future, the lives and ideas of the Lever Professors should be of interest to planners, built environment educators, architects, and anyone with an interest in planning history or with a connection to the University of Liverpool.

**Keywords** Civic design · Town planning · Lever · Abercrombie · Holford · Stephenson

### Introduction

In the United Kingdom, as in many other countries, the planning profession owes its development to a set of enlightened and visionary individuals who not only created town layouts, but helped to shape and influence planning practice and education. Early UK town planning pioneers include: Thomas Adams and Raymond Unwin of the British garden city movement; Scotsman Patrick Geddes who “most emphatically registered town planning as a new area of professional expertise” (Hawtree 1981, p. 88); and Thomas Hayton Mawson, a landscape

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architect by training. The work and writings of these four men contributed significantly to establishing by 1909 town planning's "right to recognition as a distinct technical practice and discipline," which they were inclined to see as a "*co-operative* specialism involving architects, engineers, surveyors, sociologists, and landscape architects" (Hawtree 1981, p. 91; Waymark 2009). Also significant in the early development of planning and civic design were William Hesketh Lever's model village of Port Sunlight, George Cadbury's model village Bournville, Raymond Unwin's garden suburb Hampstead, and the garden city of Letchworth, conceived by Ebenezer Howard and designed by Barry Parker and Raymond Unwin. Building on the public acceptance of these planned areas, The Housing, Town Planning, Etc. Act 1909 allowing local authorities to prepare town planning schemes provided further impetus to the movement and demand for town planning related services (Sutcliffe 1988). Also important to recognize among these early pioneers is University of Liverpool Architecture Professor Charles Reilly. It was his entrepreneurial spirit and vision together with soap manufacturer William Hesketh Lever's generous support that enabled in 1909 the establishment of the Department of Civic Design at the University of Liverpool, which is today widely regarded as the cradle of modern planning education and the first degree program in town planning globally.<sup>1</sup> On the advice of Reilly, Lever also endowed a professorship within the newly established Department, the Lever Chair of Civic Design whose post holders over the years not only sustained and further developed the small, influential department but who also significantly shaped planning practice and education in Britain and beyond.

## **Establishing the Department of Civic Design**

The compelling story of the Department of Civic Design and the individuals associated with it who trained generations of town planners and public servants and laid the foundations of post-war planning in the UK has its roots in discussions between young architecture professor Charles Reilly and soap manufacturer William H. Lever in 1908. These discussions ultimately led to what has been called an experiment, an important new initiative, a pioneering venture, and a bold undertaking, namely the establishment of Britain's and the world's first university department of town planning (The Builder 1908; Wright 1982). In order to imagine oneself in the mindset of the time, there might be no better summary than that provided in the introductory pages of the 1909 University of Liverpool Annual Report (p 7–8):

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<sup>1</sup>The first university-affiliated program in city planning was the 1907 Seminar on City Planning at the Technical University of Berlin-Charlottenburg, organized by professors Felix Genzmer and Joseph Brix (Collins 2005; Ladd 1990). The University of Liverpool though has the first department and degree program in town planning.



An important extension has also taken place in the Department of Architecture. The Town Planning Bill, submitted to both Houses of the Legislature during the autumn, has directed attention to the evils that arise from the lax and casual way in which our cities are allowed to develop, and to some extent has prepared the public mind to pay regard to beauty as well as comfort and health. But civic design, in the large sense, has not as yet been studied as a system by our architects or our engineers; and if any effectual progress is to be made, principles and methods must become the subject of regular instruction. Mr. W. H. Lever, M.P., whose success in dealing with such problems has drawn visitors from all parts of the world to see what he has done within the limits of the township of Port Sunlight, induced the University to establish a new Department for the purpose of investigation and training, and also provided the resources required for the enterprise. Without entering into the details of the scheme, it is enough to say that his great generosity has enabled us to make an experiment, the result of which may establish our School of Architecture as a pioneer in a movement that will make for happiness as well as for health.

### ***William Hesketh Lever, First Viscount Leverhulme***

William Hesketh Lever (1851–1925), later to become Viscount Leverhulme of the Western Isles in 1922, began working in the family grocery business at age 16 and at 21 became a junior partner (Davenport-Hines 2004). By 1900, Lever had built an impressive business empire based on soap manufacturing which included factories in seven countries. Lever “radiated force and energy,” (Wright 1982, p. 25) taking great pains to guard his health. He generally woke at 5 AM to begin his day with exercise, did not smoke or drink, and could run up stairs two at a time when over 70. Alongside savvy marketing talent and business sense, Lever was also a man “greatly interested in planning, housing, garden cities and landscape design” (Wright 1982, p. 56) and held progressive beliefs about worker welfare, including old age pensions, holidays with pay, and women serving on factory committees. These interests and beliefs led Lever to establish in 1888 the garden village of Port Sunlight around the factory that produced most of Sunlight Soap and allied products. In 1906, he became a Member of Parliament and continued traveling the world to build up his business. The men who would later hold appointments in his name referred to Lever as “an amateur town planner of some talent” (Stephenson 1992, p. 108) and noted the significance of Lever’s “second career of patron, initiator and collaborator in a great variety of town planning, town building and extension, house and landscape design” (Wright 1982, p. 40). These characterizations were no exaggeration, as Lever’s Port Sunlight was seen as a kind of “ideal industrial village” (Stephenson 1992, p. 108), and Lever laid out and at least partially built ten new towns (Wright 1982).

Winning a libel lawsuit following newspaper allegations that had harmed his business, in 1907 Lever was awarded about £84,000 in damages (Wright 1982) (equivalent to around GB £8 million in 2015). With this sum, Lever extended his philanthropy, particularly benefiting the newly independent University of Liverpool and its work in Civic Design, Tropical Medicine, and Russian Studies (Kelly 1981).

Lever's generosity and support for the Department of Civic Design can only be called exceptional. Of Lever's many actions and accomplishments, eight are relevant to the Department of Civic Design. Lever provided inspiration for town planning in creating his own town Port Sunlight (Hawtree 1981), funded the establishment of the Department, funded the Lever Chair (professorship), funded with annual travel allowance the Research Fellowship in Civic Design, funded the journal *Town Planning Review*, leased the Bluecoat Buildings to the Departments of Architecture and Civic Design from 1909 to 1919, kept the Department of Civic Design from being closed down in 1915, and provided financing for the School of Architecture's Leverhulme Building which would be shared with Civic Design for a number of years (Richmond 2001; Wright 1982).<sup>2</sup>

### *Professor Sir Charles Herbert Reilly*

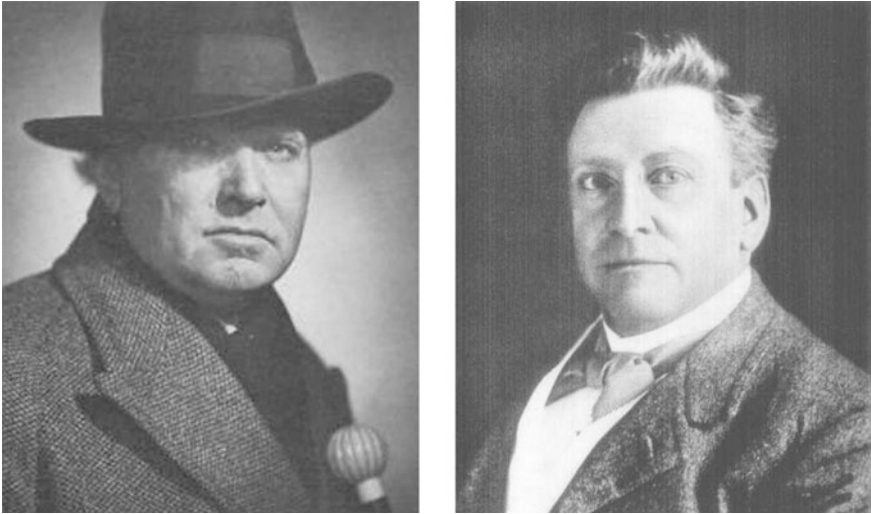
Charles Herbert Reilly (1874–1948) was described by contemporaries and students as a man of tremendous energy, vitality and enthusiasm. In a memorable depiction, Maxwell Fry describes him as “a personal vortex for whatever was on the wind, a perambulating transmitter of rapidly digested material that issued in waves of enthusiasm to whomever was capable of receiving it: he was a culture to himself” (Wright 1982, p. 49). Reilly became Roscoe Professor of Architecture at the University of Liverpool in 1904 at the age of 30. He served in that post until 1933, and was knighted for his services to architecture in 1944. In 1908, Reilly launched an appeal to save the Bluecoat Buildings (a former school) and proposed that its central portion house the University School of Architecture with the rest of the building being used as studio space for painters, sculptors, and other artists. With the help of Lever, for whom Reilly had designed cottages for Port Sunlight in 1906 (Richmond 2001), the financial arrangements were made allowing the Bluecoat proposition to come to pass.

Reilly, celebrated for many contributions in the field of architecture and related arts (Richmond 2001; Sharples et al. 1996),<sup>3</sup> is key to the story of the Department of Civic Design for several reasons. Reilly had the idea of a university school of town planning and thought through how to establish it (Wright 1982). The idea was in response to then contemporary debates about the need for greater public planning of expanding cities and towns (Richmond 2001). Reilly approached Lever about a university school of town planning when Lever was “perhaps the only man who would have put up money for so bizarre a venture” (Wright 1982, p. 68). Later on, Reilly garnered Lever's support to prevent the closing of the Department of Civic

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<sup>2</sup>The site and building were paid for by Lever and Lever's son, the Second Viscount Leverhulme, honoring Lever's 1910 pre-war promise to pay for a new building for the School of Architecture.

<sup>3</sup>Reilly, for example, designed in 1909 the University of Liverpool Students' Union and co-designed the Leverhulme Building housing the School/Department of Architecture since 1933.



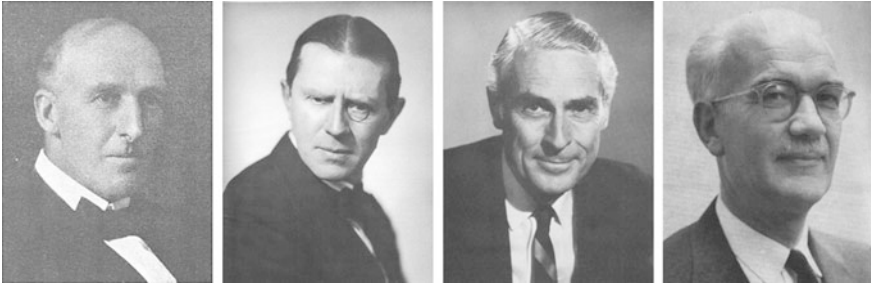
**Fig. 1** Department Founders Professor Charles Reilly (reproduced from Wright 1982) and William Hesketh Lever, MP (reproduced from Wikipedia n.d.)

Design in 1915 only 6 years after its creation. Moreover, Reilly recognized talent and made some early appointments that would be of great benefit to the new Department—namely Patrick Abercrombie in 1907 and Stanley Adshead in 1909. Lastly, Reilly groomed and pushed his favorite students, including William ‘Bill’ Holford, Gordon Stephenson, and Robert Gardner-Medwin, who would eventually become chief planning officers in England and Scotland, and in the case of the two former, also Department of Civic Design Lever Professors (Fig. 1).

### ***First Lever Professor: Stanley Davenport Adshead (1912–14)***

Stanley Davenport Adshead (1868–1946) was born into an artistic family, and had been encouraged on this path from an early age by his father, an artist himself (Powers 1981). Adshead attended the Manchester School of Art for a year at age 16 before becoming articled to an architect and then working for other architectural firms in Manchester and London. His independent practice began in 1900 (Fig. 2).

Adshead was appointed head of the new Department of Civic Design in March 1909. He was called ‘Associate Professor’ at his inaugural lecture and became the first Lever Professor in 1912. In the prospectus for 1909–1910, he established that there would be both a Certificate (1-year) and Diploma (2-year) in Civic Design, and lecture courses included “the outlines of town planning, civic engineering and hygiene, civic architecture and decoration, civic law, and landscape design” (Wright 1982, p. 82). The Certificate and Diploma courses came to be accepted as



**Fig. 2** Lever Professors Adshead, Abercrombie, Holford (all reproduced from Wright 1982), and Stephenson (reproduced from Stephenson 1959)

models by Departments of Town and Country Planning subsequently established in other universities, including University College London (Budden 1947; Wright 1982). Adshead collaborated in the 1910 launch and development of the Department's *Town Planning Review* journal and was a regular contributor. Among his more notable contributions were: 'Introduction to the Study of Civic Design' in the first issue and a series of articles on 'The Decoration and Furnishing of the City' which ran through several volumes. He also wrote on a variety of other subjects related to Civic Design, including proposals for remodeling certain areas of a number of cities, characteristic features of English towns, town planning and amenities, and aspects of town planning legislation (Budden 1947). Adshead's appointment in Civic Design was only half time, and in 1911, he was commissioned in partnership with Stanley Ramsey to design new buildings and supervise neighborhood renewal at the Duchy of Cornwall's Kennington Estate in south London. Later he was commissioned with Ramsey and Patrick Abercrombie to build a workers' settlement for Dorman Long steelworkers at Redcar called Dormanstown and went on with Ramsey to design other smaller housing projects (including ones in Totnes and Brighton), which would serve as examples for decades to come (Powers 2004). He also wrote books on town planning, planning, and new towns in 1923, 1941 and 1943 respectively (Powers 2004; Wright 1982).

Adshead served as Lever Professor from 1912 to 1914, before resigning to become Professor of Town Planning at University College London, a position which he held until retirement in 1935 (Powers 2004). The next two Lever Professors would also follow him there, "ensur[ing] that most of the senior men in British and Commonwealth town planning from 1940–65 (the great planning period) were Lever Professors, or their former student or close colleagues" (Wright 1982, p. 75). Adshead, who had a Master of Architecture and honorary Master of Arts degree, was elected a Fellow of the Royal Institute of British Architects, and served as Town Planning Institute (TPI) President from 1918–1919. Adshead's significant contributions to the Department of Civic Design can be said to include: designing the certificate and diploma courses and providing a model for other Lever

Professors to follow in terms of involvement in planning practice, the Town Planning Institute, publishing, and the *Town Planning Review* journal.

### ***Second Lever Professor: Sir Leslie Patrick Abercrombie (1915–1935)***

Leslie Patrick Abercrombie (1879–1957) was born in Altrincham, Manchester. Early experiences in the family home designed by Joseph Goddard and decorated with the advice of J. Aldam Heaton instilled a love of architecture, and after his schooling, Abercrombie became articled to a Manchester architect and simultaneously attended evening classes at Manchester School of Art. Subsequently, he worked in the office of architect Sir Arnold Thornely (who designed the Port of Liverpool Building) for three years. In 1907, Professor of Architecture, Charles Reilly offered Abercrombie a post as Assistant Lecturer and Drawing Instructor, a defining moment in his career toward becoming “the greatest town and regional planner of the twentieth century” (Miller 2004a; Wright 1982, p. 82).

In 1909, 30-year old Abercrombie was appointed Research Fellow in the Department of Civic Design, which included provision for travel to other countries and entailed editing the new journal *Town Planning Review*, collecting or writing much of its contents, and delivering 10 lectures each session. Abercrombie continued to lecture on building construction and Gothic architecture in the Department of Architecture until 1911 when his workload in Civic Design (comprising both day and evening courses) no longer permitted him to do so (Wright 1982). Abercrombie was Civic Design’s first full-time staff member, and, along with Adshead, a founding member of the Town Planning Institute in 1914 (Wright 1982).

Following Adshead’s departure to London and a short period of uncertainty over future funding of the Department, Abercrombie was appointed second Lever Professor of Civic Design in October 1915, with the recommendation and support of W. H. Lever, Patrick Geddes, H.V. Lancaster, Raymond Unwin, Thomas Adams, and Adshead himself (Richmond 2001). Abercrombie’s appointment as Lever Professor is said to have coincided with his creative peak in the 1920s, thus greatly adding to the “growing impression of Liverpool’s position as the pace-setter in planning education” (Richmond 2001, p. 104). Abercrombie and his second-in-command, Wesley Dougill, “stitched together a corpus of knowledge which, until the latter part of the 1930s, constituted the academic backbone of British town planning” (Cherry and Penny 1986, p. 61).

Abercrombie’s work during his time as Lever Professor (1915–1935) greatly enhanced the stature of the Department. Prompted by Geddes, Abercrombie had entered and won in 1916 the Dublin town planning competition in association with Sydney and Arthur Kelly. This established Abercrombie’s international reputation, and greatly increased demand for his services in England. Prevented by his one bad eye, due to a childhood illness (Wright 1982, p. 151), from enlisting, during the

1914–1918 war, Abercrombie taught, edited the *Town Planning Review*, and joined Adshead in designing Dormanstown, a housing estate for steel workers of Dorman Long outside Redcar in Yorkshire (Miller 2004a; Wright 1982). Abercrombie also undertook pioneering work in regional planning (Dehaene 2005), and his scheme for an area of 169 square miles around Doncaster’s coal-mining region in south Yorkshire, prepared in collaboration with H. Johnson in 1922, was the first of its kind to be published in Britain and provided a model for future planners (Kelly 1981; Miller 2004a). Abercrombie would also go on to prepare plans for Sheffield, East Kent, Bristol, Bath, and other areas of England and abroad. From 1925 to 1926, Abercrombie served as President of the Town Planning Institute. Also in 1926, an article he published in *Town Planning Review* led directly to the formation of the Council for the Preservation of Rural England, which he helped form and lead and which has been active and highly influential since its inception to the present.

Abercrombie succeeded Adshead as professor of town planning at University College London, a post in which he served from 1935 to 1946. During this period, it was said that “Abercrombie and his assistants set the standards for post-war development all over the country—not only in regard to New Towns, but for the size and form of neighborhoods and schools and shopping centers and arterial roads” (Holford 1957, p. 83). In 1943 and 1944 respectively, Abercrombie produced what are widely regarded as his greatest works, the plans for the County of London (prepared collaboratively with J.H. Forshaw, Wesley Dougill, and Arthur Ling) and Greater London (prepared collaboratively with Gordon Stephenson and Peter Shephard), which guided the planning of London for a half century (Miller 2004a; Wright 1982). Abercrombie was knighted in 1945 and went on to receive many other honors, and recognitions.

### ***Third Lever Professor: Lord William Graham Holford (1936–47)***

William Graham Holford (1907–1975) was born and raised in Johannesburg, South Africa. Holford’s paternal grandfather hailed from Manchester (UK), but moved to South Africa as a Methodist missionary in 1855. Holford showed an early talent for art and had wanted to be a professional artist, but at his father’s disapproval, decided to become an architect. His father seemed to regard this as “the next less disgraceful career with opportunities for drawing” (Wright 1982, p. 162). While working at an architectural firm in Johannesburg, Holford read a prospectus for the Liverpool School of Architecture and went on to become a student there in 1925.

At university Holford and life-long friend Gordon Stephenson stood out as the best draftsmen of their year. Holford won the prestigious Rome Prize for his architectural design, allowing him to study in Rome from 1930 to 1933. Holford’s appointment to the post of Lever Professor of Civic Design in 1936, aged only 28,

defied convention in passing over qualified, more senior staff members. In a letter to him, Reilly called it a tremendous tribute to his personality and the fact that “everyone who meets you is convinced both of your ability to tackle any job and of your character to undertake it for the general good and not for mere personal aggrandizement.” Holford was pulled into war duties less than three years after his professorial appointment<sup>4</sup> and went on to London during the war to lead a team in the Ministry of Works and then to advise the nascent Ministry of Town and Country Planning until 1947. In this way he came to be heavily involved in post-World War II town planning and the drafting of the Town and Country Planning Act, 1947. Holford moved in 1948 to University College London to become Professor of Town Planning upon Abercrombie’s retirement.

Holford’s national obligations did not keep him from making important contributions to the Department and its staff and students. First, his individual successes in executing weighty wartime tasks and ones involving other members of staff redounded to increase the prestige and reputation of the Department. Second, Wright mentioned Holford’s help, including financial help, to fellow-architects and young people as outstanding, describing “it can be no exaggeration to say ... that 100 architects or planners owed their first jobs or first big job to Holford: and that, including ex-students, young Rome Scholars and anyone from Liverpool, the number may well have reached 250” (Wright 1982, p. 286). Third, Holford advised his deputy William Arthur Eden on departmental matters and continued to be of service and support to the Department beyond his tenure as Lever Professor. This included giving guest lectures until 1959, and retaining co-editorship of the *Town Planning Review* until 1970. Fourth, Holford’s service to the University as both architect and first planning consultant to the University’s Development Committee (1946–1955) was significant in several ways and ultimately of great benefit to the Department (Kelly 1981). He convincingly argued for expanding the University in its immediate vicinity rather than moving to “pleasanter and more spacious surroundings away from the city center” in Otterspool (Kelly 1981, p. 303).<sup>5</sup> And the

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<sup>4</sup>Holford was invited to build a munitions factory in Kirkby near Liverpool. In less than three months from accepting, he had a staff of 150 men and in little more than a year the factory had been built. In relation to these types of efforts, one who worked with him commented that “the three remarkable Holford qualities that struck everyone [were]: his capacity for work up to a genuine sixteen-hour day; his power to preside unruffled over complex and costly programs of work of which he had almost no previous experience; and his kindness to all, and specially to juniors, on both technical and personal matters.”

<sup>5</sup>His report (Kelly 1981, p.303) read thus: “Behind these questions of practicality and procedure there is a moral question. Unlike the ancient Universities, Liverpool has grown out of and become part of the fabric of a great commercial city, .... It is very largely a civic university: and as an offset to all the disadvantages of its closely-built-up urban surroundings, it derives a large measure of its support, a considerable field of research, and much of the interest of its daily life, from the City and Port of Liverpool, and from the population—numbering over a million and a quarter—that clusters round Merseyside. This region has suffered severely from the war and from its aftermath. The University can contribute to its recovery, not only in the material sense by rebuilding a part of the town ...., but also in the social sense by continuing to live in the center of its region...Thus it is

building to house the Department of Civic Design was prioritized as one of the two earliest post-war University building projects partly out of gratitude to William Holford for his work as Consultant to the University Development Committee (Thistlewood 1996).

Holford was knighted in 1953, received multiple honorary degrees, and helped work on plans for Exeter University (where he designed the Queens Building, refectory and union, and library); Paternoster Precinct in London; Pretoria and Durban in South Africa; and Canberra in Australia. Holford was made a life peer in 1965 as Baron Holford of Kemp Town in the County of Sussex by the Wilson government; it is thus that he has the distinction of being the first architect or town planner to be made a peer (Miller 2004b). He held the Presidency of the Town Planning Institute from 1953 to 1954 and of the Royal Institute of British Architects from 1960 to 1962, and received the prestigious gold medal of each of these institutes in 1961 and 1963 respectively. He was also a member of the Royal Academy, Royal Fine Arts Commission, and Historic Buildings Council; a trustee of the British Museum, and director of the Leverhulme Trust from 1973 to his death in 1975. Despite some critiques of Holford's legacy from a professional standpoint, such as a fewness of attributed physical planning outputs or lasting writings or philosophies (Cherry and Penny 1986), his influence lives on in the direction he imparted,<sup>6</sup> the lives he touched, the example he provided, and the many people he mentored and inspired (Wright 1982). Biographers Cherry and Penny summarize that "his gifts were intellect, diplomacy, and helpfulness" (Cherry and Penny 1986, p. 221). On his contributions in South Africa, Muller observes: "He brought to the country of his birth qualities of urbanity, courtesy and kindness,... and [gave] to it a role model that was a source of inspiration and aspiration to the young community of town and regional planners" (Muller 1995, p. 265).<sup>7</sup>

### ***Fourth Lever Professor: Gordon Stephenson (1948–1953)***

Gordon Stephenson (1908–1997) was born in Walton, Liverpool, one of three children of a policeman from Bootle, Liverpool. In his autobiography, Stephenson recalls playing with the sons of a postman, shopkeeper, dock laborer, telephone linesman, tram driver, bank manager and school teacher (Stephenson 1992). In 1919, the young Stephenson first won a scholarship to attend the Liverpool Institute High School for Boys and subsequently the 5-year Elmes Memorial Scholarship

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(Footnote 5 continued)

clear that, even if the site and the money and the manpower could be found, Liverpool University, removed to a rural setting, would be of far less service to the community than if it remained."

<sup>6</sup>For example, the Holford Rules of 1959 still form the basis for the approach to routing overhead transmission lines in the UK (DECC 2009).

<sup>7</sup>Holford also has inspired many individuals and planners in England (e.g. Parfect and Power 1997, p.xiv). Learning about Holford in 2008 is what inspired the research and writing of this chapter.



and two other supplementary scholarships to become a student at Liverpool's School of Architecture in 1925, graduating with a first in 1930. Stephenson like Holford was closely mentored by Professor Reilly. In fact, upon graduation when Holford won the coveted Rome Prize, Reilly invented an award to allow Stephenson to also travel and study architecture abroad. The scholarship (the Chadwick Trust Award) gave Stephenson two years in Paris, where he studied at the Institut d'Urbanisme in the evenings and worked in the *atelier* of famed Swiss architect Le Corbusier (a.k.a. Charles-Édouard Jeanneret) in the daytime (Wright 1982). In a letter dated 27 November 1931, Stephenson wrote how the latter came about: "Dear Mums Today, the greatest event of my young and innocent life took place. I entered the office of Saint Corbusier! After a steady attack during which I paid him four visits inside the space of a month, he capitulated, despite the fact that he is up to his neck in a whopping great competition" (Stephenson 1992, p. 29).

From 1936 to 1938 as a Commonwealth Fellow (now called a Harkness Fellow), Stephenson pursued a Master of City Planning (MCP) at Massachusetts Institute of Technology. It was during this time that he met and married Flora Crockett, a fellow student in the MCP program, who would go on to become, for a time, assistant editor of the *Town Planning Review* and co-author (with Stephenson) of a 1941 publication about community centers. From 1948 to 1953, Stephenson served as the fourth Lever Professor of Civic Design. From 1949, he simultaneously maintained a private practice (Stephenson, Young, and Partners), in which he gained further architectural experience on housing, military, university and community projects (Pepper and Richmond 2004). Three of Stephenson's contributions as Lever Professor proved to be among the most significant and lasting to the Department to date. First, he designed in a very short space of time the new purpose-built building that would house the Department of Civic Design, which is today known as the Gordon Stephenson Building (Stephenson and Kingham 1952). Second, he designed and initiated a postgraduate planning degree (the Master of Civic Design, MCD), the first of its kind in the UK which was used as a model subsequently by other British universities (Batey and Massey 2010). Third, he re-launched the *Town Planning Review* journal with: a new design for layout, typography, and illustrations; a new and larger editorial team; more consistent article format; and quarterly publication for the first time since 1914 (Gabellini 1998). His efforts included requesting articles from the leading planners and thinkers of the time—Lewis Mumford, Clarence Stein, Gordon Childe, Lloyd Rodwin, Giovanni Astengo, and Marcel Poete—and increased the journal's prestige and international dissemination. Sixth Lever Professor Gerald Dix has gone so far as to say that but for Stephenson, the *Town Planning Review* "would almost certainly not now exist" (Dix 1997, p. xiv).

In 1953, Stephenson resigned from the Lever Professorship to accept an invitation to become head of the Department of City and Regional Planning at the Massachusetts Institute of Technology. However, he was prevented from taking up the post when denied a visa by the McCarthy House Un-American Activities

Committee for such activities as having visited the USSR as a young man (see also Chap. 4).<sup>8</sup> Instead Stephenson went on to become Foundation Professor of Town and Regional Planning at the University of Toronto (1955–1960), consulting on the redevelopment of Halifax, Nova Scotia, and later of Ottawa, London, and Kingston, Ontario (Pepper and Richmond 2004). Subsequently, he became Foundation Professor of Architecture at the University of Western Australia (1960–1972) and remained active in architectural and planning consultancy. In his mid 80s, Stephenson published his autobiography *On A Human Scale* (1992) and *Compassionate Town Planning* (1995) on the evolution of British town planning.

### ***Fifth Lever Professor: Henry Myles Wright (1954–1975)***

Henry Myles Wright (1908–2005) was born in Gosforth, Newcastle upon Tyne. Following in his architect father's footsteps, Wright graduated with a degree in architecture from Cambridge in 1930. As the degree course carried no recognition from the Royal Institute of British Architects (RIBA), Wright held a number of appointments in private practice allowing him to gain the knowledge to successfully sit the examination and be awarded RIBA Associateship in 1933. In 1935, Wright became Assistant Editor of the *Architects Journal* and served in that capacity until 1940 when wartime needs brought him to work with William Holford's group building hostels for munitions workers. In 1943, he became a research officer in the Ministry of Town and Country Planning and, among other things, worked on plans for the City of London with William Holford and Charles Holden. After leaving the Ministry, he worked on plans for Cambridge in 1950 and Corby New Town in 1952 as a partner in Holford's firm (Dix 2006).

The term of Wright's appointment as fifth Lever Professor of Civic Design (1954–1975) coincided with the central Government's encouragement of rapid growth of the town planning profession, and under Wright's leadership the Department is said to have "adapted itself smoothly to the changing circumstances without losing anything of its traditional eminence" (Recorder 1975, pp. 15–16). In an unpublished manuscript, *Civic Design: From Origins to Jubilee and Centenary* (2009), Posas observes that at the end of Wright's tenure, the first PhDs in the department were awarded. During his retirement years, Wright researched and wrote *Lord Leverhulme's Unknown Venture* (1982) about the protagonists in the Department of Civic Design's history. Wright himself had met all the previous

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<sup>8</sup>This must have been a great disappointment. In his autobiography (p. 154), Stephenson recalled: "Our plan to return permanently to MIT and New England had gone sadly awry. After living through World War II in England my wife was to return home, and I was to be head of the most important planning school in the English-speaking world. It was not to be."

Lever Professors and worked with both Dix and Batey, in essence forming a link connecting all the Lever Professors over the Department's first hundred years.

### ***Sixth Lever Professor: Gerald Dix (1975–1988)***

Gerald Bennett Dix was born in Salford, Lancashire in 1926. Dix trained as an architect (BA) and town planner (DipTP) at Manchester University from 1942–1944 and 1947–1950, before studying for a master's degree in landscape architecture (MLA) at Harvard in 1953 (Dix 2009). During this period, he also was in the Royal Air Force (1944–1947), and while studying for the MLA on a Fulbright scholarship, he took time off to visit American architect Frank Lloyd Wright at Taliesin (2011, pers. comm. 28 Jan). Dix spent most of 1954 in the office of Tom Mellor, who was then a lecturer in Liverpool's Department of Civic Design. Subsequently, he worked as chief architect-planner in Addis Ababa, Ethiopia from 1954 to 1956, where he was chief assistant to Patrick Abercrombie in the preparation of a master plan of the city region (Dix 1978; Moughtin 1991). Then he became a senior planning officer and acting planning advisor in Singapore from 1957 to 1959; senior research fellow between 1959 and 1963 at the University of Science and Technology, Kumasi, Ghana with some time also spent on the United Nations National Planning Team for Ghana; and planner and senior planner from 1963 to 1965 in what was to be renamed the Ministry of Overseas Development. From 1966 to 1975, Dix worked at the University of Nottingham. From positions as lecturer and senior lecturer, he went on to found the Institute of Planning Studies there and was Professor of Town and Regional Planning and Director of that Institute from 1970 to 1975. He also developed a postgraduate course in environmental planning, rejecting then current generalist models and encouraging students to specialize in some aspect of planning (Moughtin 1991).

Dix was appointed the sixth Lever Professor of Civic Design in 1975 and remained in this post until retiring in 1988.<sup>9</sup> Like previous Lever Professors, he served as an associate editor of the *Town Planning Review*. In 1979, Dix established a sister journal to *Town Planning Review*, the *Third World Planning Review* (Dix 1979)—now *International Development Planning Review*. In 1974 and 1975, Dix was a member of an international advisory group concerned with the Suez Canal towns and from 1980, Dix spent a number of years as joint director of a team preparing a master plan for Alexandria for the Egyptian government (Tarn 1989). Dix served as a Pro-Vice Chancellor of the University of Liverpool from 1984 to 1987, when his role as an overseas ambassador and many personal contacts enabled the University to develop closer links with several parts of the world, most particularly China and the Far East, and laid the foundation for further academic

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<sup>9</sup>Dix is the last Lever Professor to have occupied the Lever Chair of Civic Design, for after 1989, the title changed to Lever Chair of Town and Regional Planning.

developments (Tarn 1989). Dix was also active in considering trends and needs in planning education, including issues of internationalization (Dix 1980). As Lever Professor, Dix is said to have been “instrumental in the revival of the links with the School of Architecture and Building Engineering to encourage more architect-planners” (Report 1974; Tarn 1989, p. 6).

Dix wrote numerous articles and edited or co-authored several books, including: *Ecology and Ekistics*<sup>10</sup> (Doxiadis and Dix 1977) and *Design and Conservation in the City* (Dix and Tarn 1985). A former President of the World Society for Ekistics (1987–1988) and Fellow of the Royal Town Planning Institute (FRTPI from 1959) and Regional Science Association International (FRSA from 1977), Dix is currently Emeritus Professor of Civic Design in the University of Liverpool, Honorary Senior Research Fellow in the Chinese Research Academy of Environmental Sciences, and Honorary Council Member of the Association for the Protection of the Mountain Summer Resort and the Eight Outer Temples.

### ***Seventh Lever Professor: Peter Batey (1989–2015)***

Hailing from West Hartlepool in North East England, Peter William James Batey held the post of Lever Professor of Town and Regional Planning from 1989 to 2015. Unlike previous Lever Professors who had architectural training, Batey graduated with a BSc in Geography from Sheffield. He obtained an MCD in 1971 and PhD in 1985, both from the Department of Civic Design. He worked in local authorities in the North West (Lancashire and Greater Manchester) prior to joining the University in 1975, at which time he had the opportunity to work with Stephenson, Wright, and Dix. Batey’s international reputation in urban and regional analysis (particularly demographic-economic modeling and geodemographics) led him to undertake visiting appointments at the University of Illinois, University of Hong Kong, and University of Queensland. Batey was elected a Fellow of the Royal Society of Arts in 1988, an Academician of the Academy for the Social Sciences in 2000, and a Fellow of the Regional Science Association International in 2006 (Fig. 3).

No longer drawing town plans as times had changed, Batey played active roles in urban and regional affairs (notably in relation to the Mersey Basin Campaign<sup>11</sup>) and carried out analytical and policy evaluation studies related to airport expansion proposals, widening participation in higher education, and European structural funds. Like his predecessors, Batey served as editor of the *Town Planning Review*

<sup>10</sup>This was co-authored with Constantinos A. Doxiadis (1913–1975), a Greek architect and town planner and the father of ekistics, the science of human settlements. Ekistics draws on the research and experience of professionals in various fields, such as architecture, engineering, town planning, and sociology.

<sup>11</sup>Begun in 1985, the Mersey Basin Campaign is a government-backed partnership bringing together local authorities, business, voluntary organizations and government agencies to improve water quality and promote waterside regeneration throughout the Mersey Basin.



**Fig. 3** Lever Professors Wright, Dix (reproduced from scans from University of Liverpool Archives), and Batey (photograph taken by the author on 3 July 2009 in front of the Victoria Building following the launch of the Civic Design centenary exhibition)

and was active in the RTPI, specifically on its Education, Membership, and Accreditation Panels. Since becoming Emeritus Professor of Town and Regional Planning in 2015, Batey has remained involved in previous interests at various levels, including as an editor of the *Town Planning Review* and as chairman of the Healthy Rivers Trust.<sup>12</sup>

## Changing Conceptions of Civic Design

Professor Reilly and the Lever Professors each had distinct ways of understanding and talking about planning and civic design. Recounting their concepts of civic design is more than just reciting a list of different, evolving ideas. It is a window of insight into their minds and the prevailing societal milieu in which they lived. Their ideas (particularly those of Reilly through Stephenson) were helping steer and define the ambit of town planning both as an academic subject and as a profession.

Department founder Charles Reilly's conception of civic design and town planning consisted of "design and building or rebuilding of cities with grand avenues, squares, circles, vistas and monuments" (Wright 1982, p. 172). Reilly counselled Holford, upon his appointment as Lever Professor in 1936, to "look at Town Planning as the advanced architecture it really is" (Wright 1982, p. 172). The need for architectural treatment of town planning was a major concern for Reilly. In fact, it was consternation at the omission of any mention of architecture in the Rt

<sup>12</sup>As part of a major reorganization of academic structures across the University, a new Department of Geography and Planning, incorporating the former Department of Civic Design, was established in 2010. Following Professor Batey's retirement in 2015, as of the time of writing (June 2017), no new Lever professor has been named.

Hon. John Burns' speech introducing the 1908 Housing, Town Planning, Etc. Bill, that caused the idea of a town planning department to form in Reilly's mind (Wright 1982).

The year 1909, in particular, represented a crossroads and critical period in determining the direction town planning would take, and Reilly's efforts to give architecture a strong foothold in planning was to have wide reaching impacts, to the extent that great many planning courses in the UK and worldwide are still housed within or associated with architecture departments or schools (Alterman 1992).

First Lever Professor Stanley Adshead, while at first sympathetic to Reilly's views, came to see planning and civic design as ideally resulting from "a well-organized combination of effort" of various actors and interests and open to people of widely diverse backgrounds (Adshead 1923, p. 89). He stated: "The town planner of today may emerge from almost any profession engaged in one way or another in the construction of towns and in the development of suburbs. All that is required in order that he may be justified in calling himself a town planner is that in addition to such primary qualifications he must possess sufficient knowledge of the technicalities of other professions to be able to co-ordinate these with his own" (Wright 1982, p. 90). Similar in nature to Reilly's grand visionary aims, Adshead valued the artistic element of planning and role of imagination, saying that "Town Planners must, in the first place, be ordinary men; and not so well educated as to have lost all imagination, and the originality of children. Specialized attainment must at the outset be laid on one side" (Adshead 1923, p. 89).

Second Lever Professor of Civic Design Patrick Abercrombie did not view planning as advanced architecture. He saw architecture and planning as aspects of "one great subject, which embraced architecture, civic design, landscape design (large and small), housing, regional planning, and the conservation and amenity aspects of towns, villages, and countryside" (Wright 1982, p. 127). Abercrombie saw each of these as different facets of how to use land well and maintain integrity in the natural and built environment and perceived a need for study and "understanding of the whole town as a single organism" (Hawtree 1981, p. 96; Wright 1982). In 1930, Abercrombie expressed his position "that the sheer urbanity of the Town should be leavened by some natural tincture, increasing as the country is approached; that the country, except in some few wild spots, must necessarily be sophisticated by human treatment. But let the Urbanism prevail and preponderate in the Town and let the Country remain rural. Keep the distinction clear" (Abercrombie 1930, p. 12). The influence of Geddes suffused Abercrombie's concept of planning and civic design and sustained his confidence in the professionalization of his role between 1909 and 1925 (Meller 1990).

Holford described the method of civic design as "the economic and skillful shaping of material to achieve order and beauty out of disjointed elements" (Crinson 2003, p. 36). He viewed civic design as having two core pillars, "town planning administration and civic and landscape design." Even though, "[a]rchitects and engineers of ability and experience, and promoters and councils of rare discrimination, can produce contemporary design of a high order that is simple and moving," the town planning administration function with public relations and

politics elements would still be fundamental (Muller 1995, p. 255; Wright 1982, p. 180). Holford spoke about the need for: knowing the right point for taking political decisions, timely acts of statesmanship, and administrative decision-making methods capable of distinguishing principle from detail and strategy from tactics. Biographers Cherry and Penny (1986, p. 253) suggest that Holford's "governing idea is of civic design as a process, the ends of which are a fuller civic life." This view reflects the ideas of one of the people who most profoundly influenced Holford, the then contemporary American planning philosopher Lewis Mumford.<sup>13</sup>

Stephenson's concept of civic design is eloquently revealed and developed in his 1948 inaugural lecture as Lever Professor. He speaks about civic design as fundamentally interdisciplinary and as both a science and an art. In what might be called a summary of his views on the matter, Stephenson (1992, p. 120) states: "Town Planning or Civic Design is the science of ascertaining human needs and the ability to meet them. It is the art of arranging space, enclosed and open, in an orderly and beautiful way. Civic Design begins in the home and reaches to the factory and the fields beyond." Stephenson (1992, inside cover), in these views, is said to have "never lost sight of the social reforming impulse of the earliest town planners." In them, Stephenson (1992, p. 232) also reflects the views of Lewis Mumford, who he referred to as "the philosopher-guide of my generation."

Wright described town planning as a profession whose aim is to 'try to bring about an actual improvement in physical environment: in the uses to which land is put, the form of towns, the location and relationship of houses, roads and all other buildings and structures' (Wright 1965, p. 636). He believed it was the planner's role to look forward. In a reflection on probable trends in civic design over the subsequent 30 years, he argued that the town planner's challenges mainly centered on existing cities and encouraged greater attention to containing sprawl, road approaches to central districts, and issues surrounding transport and car traffic increases (Wright 1956).

Dix conceived of urban design as "concerned with the relationship between buildings and the spaces in which they stand or [which they] define and in either case should be aesthetically pleasing and functionally efficient" (Dix 1994, p. 264). He also regarded the relationship between architecture, civic design, conservation, and environmental rehabilitation in the city to be not only concerned with built form, but also with the economic, social and cultural aspects of a place (Dix 1996). It is evident from his actions in Liverpool that Dix wished to restore the links between civic design and architecture and encourage more architect-planners (Tarn 1989).

More recently, Batey interprets 'civic design' in the University of Liverpool context to include analysis, design, policy formulation, and management and governance in relation to the planning of cities and regions. He clarified on the departmental website in 2007 that "This definition is intended to embrace all aspects of what we do and is therefore very broad in scope. I have deliberately

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<sup>13</sup>It is reported in Cherry and Penny (1986, p.236) that Mumford became a personal friend and correspondent of Holford's and influenced Holford's ambitions as a planner.

avoided using words like environment, spatial, regeneration, evaluation, all of which belong, I think in a second stage definition. I have tried to construct a robust definition that is unlikely to be affected by changes in fashion, and I have resisted the temptation to claim territory that is not exclusively ours (which a broad definition of public policy might do).”

Despite changes in the concept of civic design as set out originally by Reilly and the Lever Professors over time—with an ever varying degree of technical versus sociological focus—there are still strong threads of connection running through all the time periods. As was aptly pointed out in 1909 and 1959 and still holds true today, town planning or civic design remains concerned with the fundamental question: “To what extent should the use of land and the layout of all buildings be required to conform to some plan or design, prepared beforehand in the interest of the public?” (Editors 1959, pp. 1–2).

## Overarching Themes

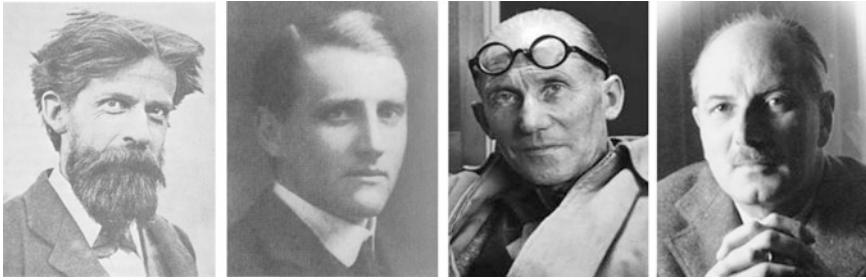
While the profiled personalities were undoubtedly independent thinkers, they were also constructively open to influences, such as Reilly’s affinity for the Beaux Arts architectural tradition, Adshead’s and Abercrombie’s regard of Patrick Geddes (Fig. 4) as a significant influence, Holford and Stephenson’s enthusiastic adoption of Lewis Mumford’s planning philosophies and appreciation of the ideas of Swiss architect Le Corbusier, Dix’s espousal of ideas from Doxiadis and ekistics, and Batey’s training in planning techniques under the mentorship of Ian Masser. Fascinating to observe is that the influences came full circle with regard to four of the Lever Professors. Sir Patrick Geddes had in fact been the intellectual father of Lewis Mumford (Novak 1995). George Lionel Pepler (later Sir George Pepler), a chartered surveyor who became Planning Inspector to the Ministry of Health in 1919 and served indefatigably in planning roles thenceforth, influenced the aims and careers of Adshead and Abercrombie most notably. He also holds pride of place for being ‘the man who prepared the way’ for British and Commonwealth planning and helped the first through fifth Lever Professors over the years. It was Pepler who arranged for Abercrombie to be involved in the Doncaster Plan, helped form and sustain the Town Planning Institute, and who “most deservedly” received the Town Planning Institute’s first Gold Medal (Wright 1982, pp. 119–120).

The contributions of the Department founders and Lever Professors were notably enhanced by partnership with their wives, who actively supported their husbands’ work and efforts. Numerous examples come to mind: Lever’s Elizabeth, his best friend since age six and wife from age 23, who was a “a perfect complement to her husband, quietly interested in all his wonderful projects” (Wright 1982, p. 37)<sup>14</sup>

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<sup>14</sup>This is a description of Mrs. Lever given by landscape architect and departmental lecturer Thomas Mawson. At the opening of The Lady Lever Art Gallery that Lever founded in her honour, Lever said “I venture to say that without the gracious influence of my wife, I doubt whether there would have been a Port Sunlight; I doubt whether there would be a firm of the dimensions of Lever





**Fig. 4** Photographs of Patrick Geddes (1854–1932, reproduced from Calabi 1979), George Pepler (1882–1959, reproduced from Cherry 1974), Le Corbusier (1887–1965, by Nina Leen for Life Magazine), and Lewis Mumford (1895–1990, source unknown), who each influenced multiple Lever Professors

Holford’s Marjorie, a fellow Rome Scholar and artist who joined her husband in enabling and facilitating the success of others<sup>15</sup>; Stephenson’s Flora, also an architect and planner, who co-authored with him and whose editorial efforts significantly improved the quality of articles in *Town Planning Review* (Stephenson 1992); Mrs. Lois Dix, who Professor Dix refers to as “my great collaborator in planning and ekistics” (2011, pers. comm. 15 Mar)<sup>16</sup> and whose constructive comments and editorial support are kindly acknowledged in his publications; and Mrs. Joyce Batey who is knowledgeable about planning and planning history and active in supporting conferences and events the Department has hosted, including its centenary exhibition.<sup>17</sup>

Also striking in these individuals’ histories is how often distinction was allowed to reveal itself through competitions and exposure to new ideas abroad. For example, Reilly’s time in the United States and Adshead’s European fact-finding tour were highly influential in the course design and content for the Certificate and Diploma of Civic Design. Abercrombie’s annual travels while Research Fellow gave him a vast range of first-hand knowledge and experience as well as provided a rich source of

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(Footnote 14 continued)

Brothers” (Purcell 2014, p.42). Lever also took his wife’s surname Hulme, and added it to his own when he was made a peer after her death, which was unprecedented.

<sup>15</sup>As described by (Wright 1982, p.169), the Holfords shared their house, accommodation permitting, throughout Holford’s life, and at one time Stephenson, ‘the Bulgarian,’ an impoverished painter and his child, and student helpers all lived at ‘80 Beds,’ which was kept together by their housekeeper Amelia. Stephenson remarked it was a wonder Mrs. Holford put up with them all!

<sup>16</sup>Dix goes on to say that in their pre-Liverpool days and prior to Doxiadis’s death in 1975, Dix and Lois met from time to time with the distinguished—and lively—group of professionals associated with the application of Doxiadis’s ideas of ekistics, including designer and innovator R. Buckminster Fuller, cultural anthropologist Margaret Mead, and town planner and educator Jaqueline Tyrwhitt.

<sup>17</sup>This was held at the University of Liverpool’s Victoria Gallery and Museum from July 3 to November 28, 2009.

material for the astounding number of articles he wrote in early volumes of *Town Planning Review*. Stephenson's experience at MIT and visits to other American universities served as a source of inspiration and guidance in the creation of the MCD. Dix's experience as a planner in the Far East and other foreign countries was undoubtedly a factor in his subsequent establishment of the *Third World Planning Review* journal, whilst Batey's earlier China connection proved to be a boon in the 2009 collaboration with Xi'an Jiaotong-Liverpool University (University of Liverpool's partner campus in China) on a new degree program in city development.

Also noted is how these profiled individuals mentored and enabled each other to increase in their leadership, capacity, responsibility, and contributions. Classic examples of this include Lever's ongoing support of Reilly and the Lever Professors and Reilly's extraordinary commitment to the professional development of Holford, Stephenson, and other talented students. Geddes mentored Abercrombie, and Abercrombie, too, was said to be: "A great believer in co-operation ... [who] invariably acknowledged the contribution of partners and collaborators ... [and] was a sympathetic mentor to several generations of students, some of whom collaborated with him later in their careers' (Miller 2004a, p. 82; Wright 1982). Stephenson attended Abercrombie's lectures even when he was a member of staff (Dix 2011, pers. comm. 15 Mar). And Wright, before his appointment as Lever Professor had worked with Holford on multiple projects including plans for the City of London, thus both learning directly from him and benefiting from his mentoring.

What is clear from study of the lives of these department founders and Lever Professors is that they were different people in different times and circumstances, operating from within their own sphere of life opportunities and drawing on their individual talents and interests. As such, they cannot be compared like for like. Abercrombie, widely regarded as "the greatest town and regional planner of the twentieth century," (Miller 2004a; Wright 1982, p. 82) stands out for the longevity of his physical plans and the power of his ideas and writings, but the legacies of each of the others are also great, both in terms of talents and contributions, but also in terms of personal qualities and example.

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## Chapter 4

# Educating Planners at MIT: Eight Decades of Changing Cities

Lawrence J. Vale

**Abstract** As the oldest continuously operating city planning department in the United States, MIT's program—established in 1933—provides a revealing window into the changing education of planners. It is the story of a department that began with a focus on physical planning and design but dramatically expanded into a multidisciplinary focus on the social and political challenges facing urban areas in the United States and around the globe following a significant re-orientation in the late 1960s. From the books and projects of the Joint Center for Urban Studies to innovative studies of city form, the program expanded to take up a broad set of economic development and environmental policy initiatives. The program has also long focused on the training of future educators, nurturing a large number of influential leaders in the planning academy. The chapter concludes with reflection on the department's normative vision for professional education, engaged scholarship, and public action.

**Keywords** Planning education • MIT • Urban development • Urban studies

As an academic home for training planners and those who interpret what planners do, the program at the Massachusetts Institute of Technology (MIT) has always done more than staff a profession; it has endeavored to change it.<sup>1</sup> To do so, the program has responded to three successive national and international crises: the socioeconomic challenges of the Great Depression and the reinvigoration of the

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<sup>1</sup>This chapter is based on the heavily illustrated catalogue developed for an exhibition marking the first 75 years of planning education at MIT; Lawrence J. Vale, *Changing Cities: 75 Years of Planning Better Cities at MIT* (Cambridge: SA + P Press). The exhibition appeared at the Wolk Gallery, MIT School of Architecture + Planning, 2008. The full catalogue is available online: [http://dusp.mit.edu/sites/all/files/attachments/project/changing\\_cities.pdf](http://dusp.mit.edu/sites/all/files/attachments/project/changing_cities.pdf).

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public sector; the sociopolitical upheavals of the late-1960s and the calls for community action; and the present-day socio-environmental challenges of an imperiled planet.

## **Up from Adams: Inventing and Building a Department**

In 1932, William Emerson, Dean of MIT's newly established School of Architecture asked pre-eminent town planner Thomas Adams to outline a new program in city planning. Recognizing its importance to the study of architecture, Emerson presented his outline to MIT president Karl Taylor Compton, noting that MIT's program would differ from those at Harvard and Cornell because it "approaches city planning definitely from the architectural standpoint." Concluding that the Institute needed an additional \$4200/year to establish the course, Emerson made a remarkable offer: he and his wife would underwrite \$2000 for the first 5 years if the Institute supplied the remaining \$2200. Compton noted in a memorandum of their conversation, "Professor Emerson expressed the opinion that the son of Mr. Thomas Adams... will be an ideal man to put in charge of this course." And so, with the School of Architecture still located in lonely isolation in Boston (after the rest of MIT had migrated to Cambridge) and with the nation mired in the Great Depression, the new course in City Planning gained both its budget and its first leader: Fred Adams.

Frederick Johnstone Adams, born in London in 1901, was educated in Canada and the U.K. before obtaining his B.Arch from Columbia University in 1928. He worked with Clarence Stein and Henry Wright on the construction of Radburn, New Jersey and took up his post as Assistant Professor at MIT in 1932. Founder of the Planning program, he served from 1947–1957 as the first head of MIT's Department of City and Regional Planning and also served as president of the American Institute of Planners. Although his program at MIT began as part of the architecture department, with a studio-dominated curriculum, Adams always insisted on integrating social and economic issues. By 1938, he had introduced subjects such as Planning and Housing Legislation, History and Principles of City Planning, Theory and Practice of City Planning, and City Planning Research, in addition to Site Planning and Construction, Theory of Site Planning, and City Planning Design studios.

In the program's first decade, the faculty consisted of Fred Adams, visiting lecturers including Thomas Adams, Sir Raymond Unwin and Marjorie S. Cautley, and other faculty including Joseph Woodruff and Flavel Shurtleff, co-founder of the American City Planning Institute (precursor to the American Institute of Planners (AIP), which became today's American Planning Association (APA)). In 1934, Edwin Burdell established the first class on "Social and Economic Factors in City Planning." This early struggle to balance research with practice, and socioeconomic considerations with design foreshadowed fundamental debates that would

re-emerge throughout the Department's history. Unwin, the famous English town planner, gave a series of eight lectures during December 1933 and January 1934 to help inaugurate the new program, and was a frequent visitor throughout the 1930s. "The aim of the planner," Unwin told the inaugural cohort of MIT planning students, "must be to place all his parts and buildings in such relation one to the other as to permit the life of the town to flourish with the least possible moving to and fro of goods and persons."

Concern over housing problems preoccupied MIT's program in city planning right from the start. Burdell taught classes on the relationship between housing and planning during the 1930s and, in 1937, chaired the National Committee on Instruction and Research in Housing. Charles Abrams began lecturing about housing at MIT in 1939, and later joined the faculty. Through his books and worldwide lecturing and consulting, Abrams influenced everything from early public housing legislation, to anti-discrimination efforts, to policies for coping with massive urbanization in developing countries.

In the earliest years of the program, Adams artfully dodged accusations from Cornell's Gilmore Clarke, documented in correspondence of that era, that the new courses in City Planning were "neither flesh, fowl, nor red herring" and countered Clarke's assertion that city planning practice required a "group of what we might call supermen," expected to be trained in too many disciplines. In his reply, Adams retorted that he had "more faith in the opinions of my father [and] Sir Raymond Unwin" since they, unlike Clarke, were "practicing city planners."

From the start, MIT planning students were invited to critique the curriculum, a tradition that continues to this day. In comments made by former students in 1940, Adams got an earful from an ex-student, John Tasker [Jack] Howard (Master of City Planning (MCP) 1936), then a planner for the Regional Association of Cleveland, who would eventually become his successor as department head: "I see city planning less and less as a design profession," Howard opined. "In fact, too much skill in drafting and detail design may lead a planner to spend his time working out curb-radii...instead of attending to the important large-scale activities."

Whatever their level of concern about their own education, many early recipients of MIT's planning degrees went on to found or lead academic planning departments around the country. Francis Violich ('38) and Thomas J. Kent ('43) were founding members of the University of California at Berkeley's Department of City & Regional Planning. Burnham Kelly ('40) and Thomas Mackesey ('38) both joined the faculty at Cornell University and led major changes in planning education there. Three of the four MCP graduates from 1946 went on to found the planning department at the University of North Carolina, Chapel Hill: John A. Parker as dean, and James Murray Webb and Pearson Stewart as faculty members. Parker next hired F. Stuart Chapin ('40). Louis B. Wetmore graduated with a B.Arch in City Planning in 1936 and went on to head the Department of City Planning & Landscape Architecture at the University of Illinois at Urbana-Champaign in 1955, joined by Lachlan ("Lock") Blair ('49). Wetmore later led the formulation of the national Model Cities program. Israel Stollman (MCP'48) went on to lead the program at Ohio State, as did Carl Feiss (MCP'38) at Columbia University and

Gordon Stephenson (MCP'38) at the University of Toronto. Stollman later gained national attention as founding Executive Director of the American Planning Association, where he served from 1978 to 1993. Alan Voorhees (MCP'49) founded the transportation consulting firm of Alan M. Voorhees & Associates, Inc., which grew to include 10 offices in the United States, as well as offices in Caracas, London, Melbourne, São Paulo, Toronto, and Zurich. Voorhees later became dean of the College of Architecture, Art, and Urban Sciences at the University of Illinois–Chicago.

Following the end of World War II, student enrollment in the planning program quickly doubled, with the graduate MCP program increasingly dominant. As the program moved toward departmental status in 1947, the faculty grew: Roland Greeley and Homer Hoyt joined in 1944, followed by Burnham Kelly in 1945, Lloyd Rodwin in 1946, Kevin Lynch in 1948, Jack Howard in 1949, Charles Abrams in 1950, Louis Wetmore in 1952, and Walter Isard in 1953. Urbanist Lewis Mumford became a frequent visitor to the Department in the 1940s and 1950s. As Bemis Visiting Professor in the late 1950s, Mumford completed some of the work on his landmark study *The City in History* while at MIT.

Many alumni from this period became leaders in planning internationally or broke barriers of race and gender. The MIT program admitted women right from the start: Flora Crockett Stephenson completed her B.Arch in Planning in 1937 and her MCP in 1940, joining Jane Rodman Steiner (MCP 1940) as the department's first women master's graduates—and each of them also married fellow MCP students. Filipino planner Antonio Cruz Kayanan, class of 1942, played a leading role in his native country, and also became a founding member of the Puerto Rican Society of Planning. Norma F. Satten, class of 1945, became an important advocate for the elderly. Samuel Cullers (FAICP), the first African American to graduate from the program, in 1952, went on to lead planning teams in Bangkok, Chicago, Toronto, and at the California State Office of Planning. Serafin Garcia Aquino, class of 1953, returned to the Philippines and founded the Philippine Institute of Environmental Planners with colleagues. As president of that organization from 1992–1993, Aquino was instrumental in working with the national government under President Fidel V. Ramos to establish the Board of Environmental Planners, bringing national recognition to the planning field in the Philippines for the first time. By 1954, fully one-third of the Department's graduate students came from abroad.

After more than two decades of leadership, Fred Adams sought out a successor. Gordon Stephenson (MCP'38), then Professor of Civic Design at the University of Liverpool, emerged as the top choice for the position in 1955. Both Stephenson and MIT were startled when his application for a visa was abruptly denied, ostensibly due to his modest role in a society promoting “Cultural Relations” with the Soviet Union during the late 1940s. Stephenson instead took up a Chair at the University of Toronto, noting in his memoir, “Our plan to return permanently to MIT and New England had gone sadly awry. After living through World War II in England my wife was to return home, and I was to be head of the most important planning school in the English-speaking world. It was not to be” (Stephenson 1992, p. 154).



The Department could change cities, but could not change the McCarthyite politics of the era. With Stephenson rebuffed, Adams stayed on and, in 1957, the Department found a new head from within its own ranks: Jack Howard. Howard had been a member of the first undergraduate class in planning (1935), the first MCP class (1936) and, like Adams, would become president of the American Institute of Planners. Aside from a failed attempt to hire sociologist S.M. Miller in 1970, it would be a full fifty years before the Department ever again looked outside for a new department head.

The 1959 department brochure perfectly encapsulates the underlying ethos of the Howard era: The objective of the planner is “the development of the most satisfying and efficient physical environment in which people may live, work, and play.” Howard also expected students “to transmit ideas in three languages: words, numbers, and pictures.” Howard explained “We were not pariahs to the architects. We were close relatives. From time to time, I would tell an architecture student that architects are to planners what plumbers are to architects, but they didn’t take that very seriously” (Howard 1985, p. 5). Although Howard lived in suburban Wayland, he was an early critic of sprawl, observing that spread-out suburbs “put children at the mercy of their mothers who have to serve as chauffeurs. It is neither good for the kids, or their mothers.” Yet, Howard also championed the liberating power of the car, seemingly oblivious to pressures of class and race: “The automobile has made the slums of the city obsolete. With the automobile the workers can move out to the open spaces and the slum areas can be redeveloped into a pleasing area” (Howard in Plotkin 1962). The firm of Adams, Howard and Greeley, founded in 1949, expanded the influence of MIT planning faculty beyond New England to include metropolitan plans for the San Francisco Bay area and Washington D.C., as well as the plan for Gandhidham, a new port city in India.

## **Expanding the Department: From Practitioners to Scholar-Practitioners**

Much of the current form of MIT’s Department of Urban Studies and Planning owes itself to the far-seeing work of a small group, established in 1955, known formally as the “Ad Hoc Committee to Advise President Killian on Educational and Research Activities in the Field of City and Regional Planning at the Massachusetts Institute of Technology.” Chaired by Edwin Burdell, then the president of Cooper Union, Killian charged the committee with determining whether the fledgling Department should expand into a new Center for Urban and Regional Studies and develop a doctoral program, or should become reabsorbed into the Department of Architecture. The Burdell Committee argued strongly for creating a Center “alive to changes affecting cities and regions,” noting that “more research and exploration are needed to discover a fitting environment for peace-time living to match and then exceed the research now directed to preparation for war.” The committee favored

establishment of a Ph.D. program, since it would “add greatly in recruiting research and teaching staff and good students, especially from the social sciences.” Calling efforts to limit the independence of the city planning program a “disastrous retreat by the Institute,” Burdell’s committee sought to enable departmental growth. They also accepted committee member Clarence Stein’s plea to continue “broader development of design skills,” even while their report proposed a closer embrace of the social sciences.

Established in 1958, MIT’s degree of Doctor of Philosophy in City and Regional Planning initially required students to have reading knowledge of two foreign languages, and to prepare for an examination in four fields, one of which had to be “planning theory.” Other fields included planning techniques; transportation and utilities planning; land-use economics and planning; plan implementation; regional planning; urban design; science, technology, and planning; physical planning problems of developing areas; and social and cultural aspects of planning. Bernard Frieden received the department’s first Ph.D. degree, in 1962. He remained at MIT as a longtime faculty member and noted scholar of housing and urban development, and served as MIT’s Chair of the Faculty and Associate Dean of the School of Architecture and Planning. Christine Boyer has had a distinguished career at Columbia, Cooper Union, and Princeton, and was the department’s first female Ph.D. graduate, in 1972. Other early women doctoral graduates who enjoyed great academic success include Judith Innes (Ph.D. 1973) at UC Berkeley, and Rachel Bratt (Ph.D. 1976) at Tufts. Among doctoral graduates focused on practice, Ngozi Okonjo-Iweala (Ph.D. 1981) stands out; she has served as Nigeria’s Minister of Finance and as Managing Director of the World Bank.

MIT’s engagement with the world of policy, both domestically and globally, took another important step forward with the establishment of the MIT–Harvard Joint Center for Urban Studies, in 1959. The Joint Center focused on several fields: the structure, growth, and form of the city; the problems of transportation, housing, and regional physical development (both in the United States and in “developing areas”); and the influence of technology, social values, and public policies and controls on planning problems and processes. By 1967, Joint Center researchers had produced more than twenty books and thirty monographs, many of them classics. This work, as a whole, was far from celebratory about the prospects of planning. As the scope and training of planners broadened, they encountered “some of the most withering criticisms of comprehensive planning ever launched” (Rodwin 1967, p. 21–22).

As its boldest venture, the Joint Center became the advisor to Venezuela’s Guayana Development Corporation (CVG) for all phases of city and regional development of what Center co-founder Lloyd Rodwin called “the largest new city development program in Latin America—and perhaps the world.” The Ciudad Guayana project prompted much uneasiness about the Joint Center’s “foreign policy.” As Rodwin put it, “There was concern about the instability of Venezuelan politics, the fear of being tagged as representatives of Yankee imperialism, the problems of staffing an operation in a different culture.... On the other hand, the proposal presented an extraordinary opportunity to help develop a

multi-dimensional strategy for a developing country—to help prepare the economic, social, physical, administrative, and educational development policies for the region, to innovate methods of analyzing and grappling with these problems, and to develop a series of major studies recording and evaluating this experience. After weighing the pros and cons, the Joint Center chose to grasp the nettle” (Rodwin 1967, p. 4). In Rodwin’s assessment, the joint effort along the Orinoco proved successful: “I do not mean to say that there weren’t constraints, limited perspectives, mistakes, squabbles, and other difficulties. There were. These were human beings, with different backgrounds, values and interests, thinking, discussing, disagreeing—often with passion. Nonetheless, there were satisfactory resolutions of most difficulties, and both CVG and the Joint Center parted amicably when the work was completed” (Rodwin 1967, p. 18).

Another Ciudad Guayana team member, “project anthropologist” Lisa Peattie (who later became the department’s first tenured female faculty member, in 1968) developed a more skeptical view, articulated in two celebrated books completed two decades apart, *The View from the Barrio* (1968) and *Planning: Rethinking Ciudad Guayana* (1987). She and her children lived for 2.5 years in an earth-walled house in the shantytown of Barrio La Laja. Peattie saw, and learned from, a different community than did her colleagues: “The planners had concerned themselves with issues of economic efficiency, amenity, social equity, and community. The city as it has evolved is conspicuously lacking on all four counts” (Peattie 1987). More positively, Peattie found her own voice as a scholar-practitioner. “What I did in Venezuela,” she wrote in *The View From the Barrio*, “was neither social action, except as a human being with other human beings acts and interacts, nor was it research in the conventional sense, for I had no ‘problem,’ no ‘research design.’ I was trying to find out what an anthropologist could learn and say that would contribute to planning in that situation” (Peattie 1968). “What I found in Guayana was passion, intention, and struggle,” she observed in *Planning: Rethinking Ciudad Guayana*. “The world became politicized for me. Writing became discussion and argument. The anthropology of description would never satisfy me again” (Peattie 1987).

Looking at the Joint Center’s track record more broadly, Rodwin pithily observed that its research style was shaped by “three lofty aims, two nasty constraints, one extraordinary opportunity, and one or perhaps two twinges of conscience” (Rodwin 1967, p. 1). It aimed at increasing basic knowledge of cities and regions, building bridges between research and policy at all levels, and enriching teaching programs at MIT and Harvard, but was constrained by shortages of money and staff. It embraced the contract research opportunity to develop a new industrial city in southern Venezuela, while still focusing the bulk of effort on Boston and the United States. The Joint Center’s researchers struggled over their relationship with the people they studied. As Rodwin observed, there was difficulty in identifying community goals and “there is also the problem that the benefits go to one group while the costs fall on another and there is as yet no adequate analytical basis for making interpersonal and intergroup comparisons” (Rodwin 1967, p. 14). In the end, Rodwin himself admitted to significant shortcomings: “The Joint Center has

been much more successful in testing, ventilating, and to a lesser extent generating ideas and serving the educational mission of its two institutions than in solving problems for action agencies; and as for solving problems, it has been more successful far away than close to home” (Rodwin 1967, p. 21–22).

Another MIT faculty member, Kevin Lynch, focused most of his own attention on problems in the United States, launching a research trajectory that continues to influence scholarship and practice in the domain of urban design. Most of Lynch’s ideas about city form were already percolating during his first years as an assistant professor. As early as 1951, he urged that MIT’s department create a new “Center for Urban Research” focused on the “basic question” that would mark his life-long passion: “What should be the physical form of the metropolitan region in the future?” Lynch knew it was an unwieldy and normative question that could not be “answered directly by research.” Nonetheless, he argued “it could be used as a basic direction” and as a means for assessing whether research projects held any “significance”. Thirty years later, Lynch wrote *A Theory of Good City Form* (1981). As a *Boston Globe* memorial editorial put it, “Lynch’s work was pioneering because, unlike more imperious city planners, he consulted people first and plans second” (Boston Globe 1984).

After his retirement, Lynch worried that his Environmental Design program might fade away, but it did not. Even as many other American planning schools abandoned their commitment to physical planning and design, the MIT department instead redoubled its efforts. By the 1990s, as student interest and professional practice re-embraced urban design as an important dimension of planning, the department was well situated. Renamed the Joint Program in City Design & Development (CDD) in the late 1990s, in recent years it has consistently attracted about 40% of the applications to the MCP program. For more than three decades following Lynch’s death in 1984, the department’s CDD faculty have conducted urban design studios, workshops, and practica in the U.S. and around the world; explored issues of land-use and community growth; fostered connections among city design, public policy, and preservation; questioned the use and misuse of design standards; articulated the design politics of contested urban spaces; explained the vital role of urban natural systems; transformed landscapes of waste; identified the options for shrinking cities; and clarified the links between transportation and environmental performance.

## Planning, the Revolution

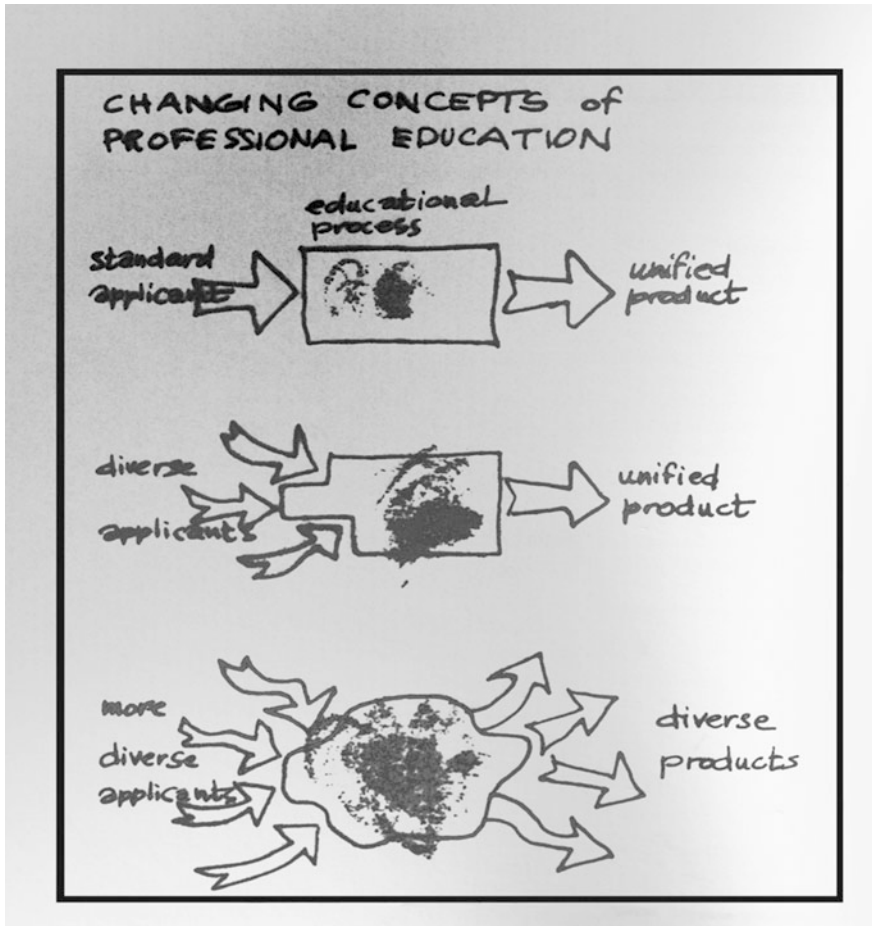
Despite some continuity in the emphasis on physical planning, however, the post-1970 version of the department is largely unrecognizable to those who knew it before that time. By 1968, Jack Howard was forced to acknowledge in his annual report “the changing nature of the city planning field.” At MIT, he observed “Physical environmental change remains a strong element, but [is] now balanced by

an equally strong thrust to plan and accomplish social change directly, as well as—and in concert with—socially valuable economic and physical change.”

Dean Lawrence B. Anderson captured the sentiment of the day: “Since old-style professionalism has too often addressed the wrong problems, students and faculty alike are becoming suspicious of the merits of theoretical exercises that lead to ‘correct’ solutions on paper, especially when they presume to deal not just with physical phenomena but with the welfare of human beings.” Planning schools like MIT attracted students because they viewed it as a means to address the “urban crisis”. Many of them, Anderson observed, “are now less likely to ask how a plan is to be implemented, and more likely to inquire about who wants to do it and why, and whether it is worth doing” (Anderson in Nutt 1974, p. 12).

In such a changing intellectual climate, in 1967, students demanded, and faculty agreed, to make studio classes optional, and the Department abolished the last vestiges of a core curriculum in 1968. Howard viewed this “student revolt” as “an exceedingly well-mannered and good-humored confrontation,” one that gained the “full support of both older and younger faculty.” That said, as stated in his annual report he clearly understood that “the students earned the credit for initiating the timely reform.” Four students wrote to complain: “To avoid misleading its students, the Department has largely ceased to lead them at all. While the elimination of core curriculum allowed students to be much more flexible in pursuit of a wider range of interests, it also reduced dialogue on basic issues in and out of planning: in the absence of required or comprehensive subjects, students choose courses that confirm their existing substantive or ideological biases” (Nutt 1974, p. 17). Despite the flux of the curriculum, interest in the Department reached an all-time high in 1968, with ten applicants for every space in the MCP program.

If the operative metaphor was to be the “academic supermarket,” the challenge for faculty was to sort out how to stack the items and name the aisles. The department grew and diversified in multiple ways: in the disciplinary range of its faculty, in the nature of its curriculum, and in the backgrounds of its students (see Fig. 1). Between 1968 and 1973, the Department made faculty appointments in urban sociology, environmental design, quantitative methods for urban analysis, urban anthropology, operations research, urban law, health planning, urban management, transportation, regional economics, social intervention, communications, urban politics, urban economics, and urban history. In 1968–1969, the Department’s MCP program enrolled only two minority students, and none enrolled in the doctoral program. Four years later the situation had markedly changed: the MCP program had 23 minority students—46% of the program’s domestic enrollment—and four additional minority students were registered in the doctoral program. In 1974, the Department could claim that 1/3 of all minority students enrolled at MIT were registered in the planning department. The department increased its efforts to recruit students to work “with and for hitherto underrepresented constituencies,” a policy that also included non-minority students committed to “diversifying the impact of planning and planners” (Anderson, in an unpublished report in the files of William L. Porter 1974).



**Fig. 1** Changing concepts of professional education, from the 1930s to the 1970s. Drawing by former MIT Dean Lawrence B. Anderson, from an unpublished report contained in the files of William L. Porter, MIT Institute Archives and Special Collections

Starting in the mid-1960s several current and future MIT faculty members embraced activist challenges. In 1968, Tunney Lee, soon to join the MIT faculty, served as a key designer for Resurrection City, the large squatter encampment on the Washington Mall, constructed parallel and adjacent to the Lincoln Memorial's reflecting pool as part of the Poor People's Campaign for Jobs and Freedom. Mel King and others in the department played central roles in the 20-year urban drama known as Tent City, a struggle over the future of prime land in Boston's South End, adjacent to what is now the Copley Place complex. Progressive MIT faculty, including Lisa Peattie and Robert Goodman, took the lead in forming Urban Planning Aid played key roles in stopping the proposed Inner Belt highway from

destroying Cambridge and Somerville neighborhoods. During the 1960s and early 1970s, John F. C. Turner pioneered ways to deliver vital infrastructure needs to low-income urban dwellers in developing countries through provision of “sites and services” schemes that encouraged self-help housing.

In 1970, the Department launched the Community Fellows Program, intended to help minority leaders cope with problems of social and economic development within their communities. Fellows came from community development corporations, tenant action groups, private organizations with action and development components, state legislative bodies, community health agencies, media organizations, and academic institutions. The Department also took concerted steps to increase the enrollment of underrepresented minority students in the program, aided by substantial funding from the U.S. Department of Housing and Urban Development (HUD). Beginning in 1971, HUD supported 2-year fellowships for ten students each year. Each participant in this Minority Intern Program worked 12 hours per week at a variety of government and community-based agencies, and took part in a special weekly seminar called “Planned Change and Implementation.” The spirit of the Community Fellows Program, led by Adjunct Professor Mel King from 1977 until his retirement in 1996, has continued. Ceasar McDowell, as Professor of the Practice of Community Development, created the Center for Reflective Community Practice (CRCP), dedicated to empowering communities by helping them to “know what they know” and this has evolved into the Community Innovators Lab (CoLab), under the direction of Dayna Cunningham.

As planning education at MIT continued to seek new ways to engage more fully with communities, the department hired Donald Schön, a philosopher and theorist of practice. Schön found it very difficult to understand the process of planning: “After some four years of experiments with a variety of kinds of efforts to help students involved in field work,” he wrote in a 1972 memo to the dean, “it is by no means clear to me what they learn through that experience. They may be learning: —that it is ‘hard out there’—that ‘I am incompetent’—that people out there are ‘out to get me.’ Often the real world involvement simply overwhelms the student with more information than he can handle. In this respect, I have come to feel that reality is over-rated!” Undaunted, Schön, in a memorandum to Dean William Porter, started asking tough questions that have remained central to professional education: “What are the conditions for being able to learn from experience? What permits the ability to function when you cannot ‘know’ in the situation by rigorous standards of knowledge?” First articulated in this way in 1972, these ideas coalesced into notions of “reflection-in-action,” articulated in his landmark book, *The Reflective Practitioner* (Schön 1983).

As department head from 1970–1974, Lloyd Rodwin helped orchestrate a revolutionary growth of the Department’s size and mission. In 1969, the Department of City and Regional Planning (DCRP) had formally become the Department of Urban Studies and Planning (DUSP). The name change, like everything else in the era, reflected a newfound and expanding desire to tackle the problems of the city in as many disciplinary and interdisciplinary dimensions as possible. “Planning” alone no longer seemed up to the task, especially if the bad planning decisions of the past

and present could be seen as part of the problem. In the Department's reinvented form, DUSP graduates did not want to staff the existing planning profession; once again, they wished to change it.

## **After the Revolution: Global and Local Engagement**

After the Rodwin revolution, however, the Department experienced significant growth pains and identity problems. By 1974, DUSP faced "a serious financial bind," saddled with many appointments that had been supported by the "soft" money of contract research and "special" funds that were no longer available. With about 20 junior faculty on tenure track from all manner of fields, department head Langley Keyes and Lawrence Susskind lamented in a memorandum to Dean Bill Porter that the Department's "phenomenal growth" had nonetheless failed to "create a clear and viable image for itself within MIT." By the late 1970s continued cuts in outside funding coupled with rising tuition costs and declining job prospects for graduates, especially in the public sector, caused a reduction in enrollment and hampered research efforts. DUSP responded by encouraging faculty to devote more time to sponsored research and initiated new contacts with the private sector. In 1983, as one outgrowth of this, MIT established the Center for Real Estate Development—the first one to be hosted by a school of architecture and planning, rather than by a business school. In 2015, DUSP and the real estate center jointly launched the Samuel Tak Lee Real Estate Entrepreneurship Laboratory, funded by a remarkable \$118 million gift. In many other ways, however, the department's faculty reaffirmed the long-standing public sector mission of the department, while also emphasizing the power of new kinds of partnerships.

Since the 1970s, the department has retained strengths and focused in some fields such as urban design and housing, while also devoting enhanced attention to issues of environmental planning and policy, economic development (including planning for developing countries), and the possibilities for new kinds of responsive technologies to support planning.

The commitment to environmental policy and planning in the department is deeply rooted in earlier traditions of both environmental design and public policy. Since the 1970s, led by Lawrence Susskind, the department has helped planners to develop new ways to address intractable environmental problems, focusing on methods of alternative dispute resolution linked to the MIT-Harvard Public Disputes Program and to a highly influential not-for-profit organization, the Consensus Building Institute (CBI). Other environmental research and practice activities have ranged broadly and globally: brownfields reclamation, international environmental treaty negotiation, ecosystem management, societal elements of environmental governance, the linkages between sound environmental science and better public policy, the role of natural systems in urban areas, the challenges of climate change adaptation and energy efficiency, initiatives to assess the sustainability and resilience of cities, and the simulation of environmental futures.



Building on faculty work from the 1950s and 1960s, the MIT planning department has continually expanded its commitment to international development scholarship and practice. From the early work of Adams, Howard, and Greeley in India and Bangkok, through the ambitious multi-dimensional adventure of planning Venezuela's Ciudad Guayana, the Department has sought global outreach and influence. From the early work of John Friedmann (who began his long career with a short stint as an MIT faculty member during the 1960s) to the subsequent scholarship of Alice Amsden on East Asia and Judith Tendler on Brazil, the department addressed the world's development challenges. In 1967, Lloyd Rodwin launched the Special Program for Urban and Regional Studies of Developing Areas (SPURS), which has to date brought to MIT more than 600 mid-career professionals from 90 different countries, including many Hubert Humphrey Fellows. Today's International Development Group (IDG) conducts research and assists in the planning practice in countries around the world striving for social, political, and economic development. IDG faculty members examine the urban, regional, and national socioeconomic impacts of major public and/or private investments, and address problems of squatter housing, municipal finance, metropolitan sprawl, and social disparities at a variety of scales. Aided by a variety of "practica" subjects and field-based research on several continents, DUSP's curriculum in international development provides an integrated institutional and historical view of economic, physical, political, and social factors.

The Department had emphasized field-based learning opportunities for many decades and, in 2002, formally introduced a "practicum" requirement into the MCP curriculum. These workshop-style subjects provide students with experience in the practice of city and regional planning by providing the opportunity to synthesize planning solutions within the constraints of real scenarios faced by clients in locales ranging from Massachusetts to Mexico to Mozambique. Each practicum seeks to place students and faculty at the leading edge of planning practice by exploring innovative ways to integrate planning disciplines, to work with communities, apply reflective practice, and connect theory and practice. These practica share several characteristics: the making and testing of proposals; the involvement of constituents in a particular place; the deployment of interdisciplinary approaches and team-teaching; and the exploration of multiple methods for addressing problems. Settings for practica have ranged from central cities and suburban areas in the United States to urban, peri-urban, and regional areas in both developed and developing countries. In many cases, the Department has established strong multi-year partnerships with particular clients and communities, contributing significantly to rebuilding in post-Katrina New Orleans as well as to the recovery of struggling post-industrial cities in Massachusetts, while also supporting the advancement of human rights in India and conducting more than three decades of biennial joint urban design studios in China with Tsinghua University.

MIT's program in city planning also embraced the advantages of its embeddedness in an Institute of Technology right from the start. In 1951, Kevin Lynch urged his colleagues to launch a research center that would "lean heavily toward the influence of technology on metropolitan form." He presciently called for expanding the department's agenda to include "the role of communication and transportation

in the urban environment” and to be open to “new possibilities of recently developed technical means and theories.” A decade later, the department became a pioneer in introducing computers to the teaching of city planning. During the 1970s and 1980s, this evolved into on “urban information systems” that has continued to this day with an increasing array of new media. In 2004, Carlo Ratti opened the SENSEable City Lab, part of a growing initiative to use information technology to make cities more responsive. Meanwhile, other faculty have continued to explore innovative ways to use digital media to enhance the experience of the public realm, and to analyze “big data” in service of “city science”.

## Changing Cities: Is There an MIT Way?

In assessing the first eight decades of planning education at MIT—a time of tremendous growth and diversification—a few things have remained remarkably constant:

- DUSP has taken an expansive view of planning and planners, which has both forged new opportunities and challenged DUSP’s collective identity as a single department;
- DUSP has stayed focused on getting things done in the world, not just having ideas;
- DUSP has retained a deep interest in the politics and institutional processes that shape ideas and make it possible act on them democratically;
- DUSP fosters a positive approach to technological transformation as a major force of social change;
- DUSP trusts that the built environment can meet the needs of diverse populations and serve as a source of meaning in their daily lives;
- DUSP’s appetite for global and comparative thinking and doing continues to grow;
- DUSP remains committed to the least advantaged metropolitan residents, helping them develop and use their own voices and skills to make empowered decisions.

Taken together, these shared premises and practices reveal the MIT planning department’s normative vision for professional education, engaged scholarship, and public action. Changing the city regions of an imperiled planet urgently requires that an education in planning entail all this, and more.

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# Chapter 5

## Jaqueline Tyrwhitt and the Internationalization of Planning Education

Ellen Shoshkes

**Abstract** This chapter examines the role of English town planner, educator, and editor, Jaqueline Tyrwhitt, in the internationalization of planning education in the post-World War Two period. It focuses in particular on the role Tyrwhitt played in the establishment of a school of Regional and City Planning within the Institut of Teknologi Bandung (ITB), Indonesia, which opened in 1959 as the first of its kind in Southeast Asia. The idea of a new planning school in Southeast Asia evolved in the context of the reactivation of transnational exchanges of planning ideas and practices that had been interrupted by World War Two and which were supported by the United Nations. Tyrwhitt's beliefs in Geddes' bioregionalism and notions of European moderns contributed significantly in shaping the philosophy of the new planning school and curriculum at ITB which embraced comprehensive physical planning. In sum, the study reveals three important mechanisms for the diffusion and cross-fertilization of planning ideas: educational and research institutions, professional associations and journals, and international development agencies.

**Keywords** Tyrwhitt · Geddes · United Nations · Postwar reconstruction · Transnational exchange · Indonesia

### Introduction

This chapter documents and analyzes the role of the English town planner, educator, and editor, Jaqueline Tyrwhitt, in the internationalization of planning education in the post-World War Two period.<sup>1</sup> In doing so, it sheds light on three important mechanisms for the diffusion and cross-fertilization of planning ideas:

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<sup>1</sup>This chapter builds on my book (Shoshkes 2013) and subsequent research.

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educational and research institutions, professional associations and journals, and international development agencies. It focuses on the important role Tyrwhitt played, as Associate Professor of Urban Design at Harvard University Graduate School of Design (GSD), in the establishment of a school of Regional and City Planning within the Institut Teknologi Bandung (ITB), Indonesia. The UN regarded the new school, which opened in September 1959 and emphasized comprehensive physical planning—the first of its kind in Southeast Asia—as a pilot for a global system of similar research and training institutes.

The idea for a new planning school in Southeast Asia evolved in the context of the reactivation of transnational exchanges of planning ideas and practices that had been interrupted by World War Two and the establishment, by the UN, of the first large scale system of technical assistance to facilitate such exchange. Tyrwhitt forged an influential set of planning ideas—a synthesis of the bioregionalism of Patrick Geddes (1854–1932) and tenets of European modernism—that anticipated and helped shape UN policy in the 1950s, and was implemented at ITB. Tyrwhitt exerted her influence both directly and through networks she cultivated through her work in England during World War Two as director of research for the Association for Planning and Regional Reconstruction (APRR). The Correspondence Course in town planning for members of the Allied forces that she ran through APRR’s sister organization, the School of Planning for Regional Redevelopment (SPRR) was particularly notable. This chapter begins by describing that foundational effort, and examining how, in the first postwar decade, Tyrwhitt helped nurture her concept of planning and approach to planning education while a highly mobile independent scholar and consultant to the UN. This effort underpinned Tyrwhitt’s unique contribution, as a member of the Harvard faculty, to the creation of the new school in Bandung.

## Formative Influences

Raised in London, Tyrwhitt trained to become a garden designer, which included a year at the Architectural Association (AA) (1924–5). She wanted to do more meaningful work, however. After studying economics at night, she became an organizer for the League of Industry, which called for industrial reorganization along the lines of “planned capitalism.” In 1935, in order to learn more about the integration of industry with agriculture, Tyrwhitt took a job at Dartington Hall, the experimental estate established by Leonard and Dorothy Elmhirst. That was probably where Tyrwhitt came across Geddes’s *Cities in Evolution* (1915), which inspired her interest in town and country (i.e., regional) planning, just then emerging as a profession and academic discipline, distinct from its roots in architecture and engineering. In 1936, Tyrwhitt decided to study at the AA’s new School of Planning for Research and National Development (SPRND). The school’s principal, E.A.A. Rowse (1896–ca. 1982), and several members of the Advisory Board, notably Raymond Unwin (1863–1940) and George Pepler (1902–1959)

were disciples of Geddes, whose ecological conception of planning—based on the region as the planning unit and emphasizing research about interrelated social, economic and environmental design factors—inspired the curriculum. SPRND instituted a much more comprehensive course than those existing at the time at Liverpool and London Universities, and was prepared to admit as students, graduates of any subject related to planning, such as sociology, public administration, geography and economics rather than only architects, engineers or surveyors. However, SPRND closed shortly after the outbreak of war in 1939. When Tyrwhitt passed her exams in July of that year she was among the school's first and last graduates.

## **Mobilization for Postwar Planning**

In 1940, Rowse formed APRR, a new entity to continue SPRND's research work, and recruited Tyrwhitt to serve as its director. She assumed her new position in February 1941. It was in this capacity that Tyrwhitt's ideas about planning and the education of planners crystallized. The war gave impetus to a consensus that had begun to emerge during the 1920s and 1930s on the conception of planning pioneered by Geddes—which was fostered by Anglo-American exchange and had inspired SPRND—and APRR developed multidisciplinary survey methods to apply Geddes's planning principles to postwar reconstruction. APRR's Advisory Board also asked Tyrwhitt to organize a correspondence course to train planners to do this work. This course would have to be recognized by the Town Planning Institute (TPI) and Tyrwhitt quickly gained the enthusiastic support of Pepler, a founding member and Honorary Secretary of TPI. In late January 1942, TPI's Heads of Schools Committee accepted Tyrwhitt's proposed course in principle, coupled with a short studio and survey course after the war before students could qualify for TPI membership (professional certification). Tyrwhitt then worked with Pepler to redesign Rowse's prewar SPRND as a new School of Planning and Research for Regional Development (SPRRD), a subsidiary of APRR, to run both these courses. TPI formally recognized SPRRD in late January 1943. The problem now was arranging funding. Tyrwhitt was again instrumental in securing backing from the War Office.

## **Army Education and the Internationalization of Planning Education**

The War Office had introduced compulsory education for the troops—a first in British army history—in August 1941, with the creation of the Army Bureau of Current Affairs (ABCA). ABCA aimed to give the troops an opportunity to discuss

current affairs to foster the understanding that they were fighting for something beyond national survival—the building of a better Britain (Hawkins and Brimble 1947). A course in town planning would appeal not only to those who aspired to become town planners, but to everyone who wanted to participate, as informed citizens, in this larger endeavor.

Planning for peace by the government was gaining momentum by the summer of 1942, and military progress allowed the extension of correspondence courses to more troops. The Army Education Corps also increased the scope of compulsory education, setting aside three hours a week for training in addition to ABCA discussion groups (Bickersteth 1944). In December 1942, ABCA asked APRR to produce a pamphlet on town planning to be used to frame such discussions. It was in this context that Tyrwhitt established the contacts and credibility that convinced the War Office, in June 1943, to issue APRR's correspondence course to the troops. Tyrwhitt's career as a planning educator began when the War Office sent APRR the first batch of students in mid-December.

After D-Day, with the end of the war within sight, demand for the course continued to grow, along with its international reach. By September 1944 the Army had extended correspondence courses to the Central Mediterranean Forces (including American, French, New Zealander, Greek, Polish, Indian and African soldiers) and soon included all troops in the Mid-East. By December, troops in India, the Southeast Asian command and Malta were included (Hawkins and Brimble 1947). By war's end more than 1,500 had participated in the town planning course, which Tyrwhitt had run practically single-handedly.

The need to prepare the curriculum for the town planning course—for which there were no textbooks—provided the opportunity for Tyrwhitt to codify the planning principles and survey techniques APRR was developing. In so doing Tyrwhitt began formulating a synthesis of Geddes's principles and the tenets of European modernism, which had been brought to Britain by refugee Bauhaus teachers and students fleeing the Nazis, and which she and other members of the Modern Architecture Research (MARS) group, the British branch of CIAM (Congrès International d'Architecture Moderne), were adapting to suit postwar conditions in England.

## Postwar Internationalism and Information Exchange

At the end of the war—and the restoration of freely flowing information—Tyrwhitt articulated this synthesis in “*Town Planning*,” in the first issue (1945) of the *Architects' Year Book*, as well as in her North American lecture tour that year. Tyrwhitt had been invited to Canada on behalf of the British Information Service to report on plans being made for postwar Britain. Jacob Crane, then Director of the U. S. National Housing Agency's International Office, arranged her itinerary in the US. Crane was also a follower of Geddes and knew of Tyrwhitt's work at APRR through the International Federation of Housing and Town Planning (IFHTP),

which, under Pepler's direction, had survived the war years based in London. On the eve of the UN Conference on International Organization, Crane wanted to promote transnational exchange of ideas for postwar planning and strengthen connections among like-minded planners. The new contacts and friendships Tyrwhitt made on this journey made it possible to launch her transnational career and participate in the revival of prewar networks of exchange established by progressive reformers (such as Geddes), transnational organizations (such as IFHTP and CIAM), and academics, notably those based at Harvard's Graduate School of Design (GSD), where Dean Joseph Hudnut had been an early supporter of SPRND (thanks to Unwin's involvement in both schools).

Hudnut hosted Tyrwhitt's visit just as GSD was beginning to implement a new Regional Planning Program under the direction of G. Holmes Perkins along Geddesian lines as recommended by John Gaus (1943) and as elaborated in Chap. 1 earlier. Hudnut arranged for Tyrwhitt to meet with the multidisciplinary Regional Planning Advisory Committee, among them Catherine Bauer (later Wurster). Connecting with these distinguished colleagues as well as CIAM émigrés in North America reinforced Tyrwhitt's determination to continue her work promoting modern Geddesian planning, and to become more involved in both, CIAM and IFHTP.

In October 1946, Tyrwhitt ensured that APRR had a prominent presence at the first postwar congress of IFHTP, where delegates from 23 countries adopted a resolution to "urge the Economic and Social Council of the United Nations to establish ... a unit to deal specifically with the international problems of housing and planned reconstruction" (Ihlder 1946, p. 13). This resolution signaled the delegates' desire to coordinate reconstruction and development efforts worldwide, their recognition of the need to *plan* such efforts, and the need to *train physical planners* (broadly defined) for this undertaking—especially in the new and emerging nations, where the emphasis was primarily on *economic* planning and development. Tyrwhitt and Bauer organized a meeting at the congress to form a committee on Education for Planners during which educators from various countries agreed to circulate their curricula for this emerging discipline; APRR agreed to act as a clearinghouse for that exchange.

At that time Tyrwhitt was finalizing the curricula for SPRRD's short intensive completion course for returning soldiers. There was so much demand for that three month course that she ran seven consecutive sessions in 1947. Tyrwhitt (1947b) shared that experience with an international audience in her article "Training the Planner in Britain" for the IFHTP newsletter. She was especially proud that SPRRD trained a small, but influential cohort who made significant contributions to postwar reconstruction worldwide as they assumed positions throughout the Commonwealth, in developing nations, and as advisors to the UN and other international development agencies, just when they were needed most.

Tyrwhitt strengthened her international connections as it became clear that she would have to leave England, as openings for women in the workplace created by the war closed in favor of returning veterans. When Rowse returned from his wartime service in 1947, Tyrwhitt helped him develop a one-year Diploma Course



on comprehensive regional planning focusing on world regions—international development; in January 1948 she resigned as director of SPRRD so Rowse could take over. Tyrwhitt (1953) recalled: “I left hoping that the Diploma Course would be able to get going on the next stage of its career—the institution of the first integrated course in regional planning (meaning world regions rather than local ones).” Tyrwhitt now also hoped to work internationally, with the UN or UNESCO.

Tyrwhitt clearly had an international audience in mind in producing *Patrick Geddes in India* (1947a), a collection of excerpts drawn from the town planning reports Geddes did for Indian cities between 1915 and 1919. Tyrwhitt selected texts to demonstrate the relevance of Geddes’s town planning principles to the *worldwide* task of urban reconstruction and the realization of a new world order based on cooperation that the UN would foster. These planning principles included “diagnosis before treatment” (survey before plan) and “conservative surgery,” a process that respects local traditions and builds on their strengths. Tyrwhitt also selected passages that highlighted Geddes’s concept of “bioregionalism.” That is “what makes this book particularly apt and timely for the days ahead,” Lewis Mumford (1947, p. 9) declared in his Introduction: “One cannot appreciate Geddes’s regionalism unless one also appreciates his internationalism, his universalism... What he says about India has a lesson for other lands.”

## UN Technical Assistance Program in Housing and Town Planning

That same year, Crane helped the UN Secretariat establish a program on housing, building and town planning within the Department of Social Affairs. Initially, the main project of that program was to stimulate international exchange of information on practical and transferable experiences. The vehicle for this project was the bulletin first called: *Housing and Town and Country Planning*. Pepler nominated Tyrwhitt to be the editor, but that position was not immediately filled, as the UN’s housing and planning program evolved in tandem with the UN’s Expanded Program of Technical Assistance (EPTA), launched in 1949. To prepare for EPTA, the Department of Social Affairs charged Crane to lead a reconnaissance Mission of Experts on Low-Cost Housing in South and Southeast Asia from November 1950 through January 1951. Crane must have had some say in appointing the four members of his mission, as they all shared his Geddesian perspective on regional planning (Gardner-Medwin 1952). To signal this consensus, the Mission’s report includes many references to Geddes and even includes a long citation from Tyrwhitt’s *Geddes in India* as an appendix (Mission of Experts 1951).

The Crane Mission’s recommendations provided the framework for future UN activities in Asia and the Far East. Notably, the Mission (1951, p. 21) observed that while some form of national social and economic planning was underway in each of the countries visited, the countries were relatively weak in the incorporation of

regional planning: “the physical interpretation of this national policy—the actual use and development of land on a regional basis.” The Mission believed that the UN could be of great service by providing technical assistance in regional planning, for example, by assisting in creating professional training facilities to address the widespread shortage of skilled personnel. However, despite agreement on the important long-term need for university-based training of planners, there was not consensus about the wisdom of importing foreign experts to help. Consequently, the Mission recommended further study of the issue and UN coordination of arrangements for international cooperation with regard to research and training programs for the region as a whole.

In 1950, trained personnel were especially scarce in newly independent Indonesia, which had suffered extensive destruction during the Japanese occupation (1942–1945) and the Indo-Dutch war (1945–1949). Due to Dutch-imposed restrictions on access to higher education there were fewer than 15 professionals with town planning expertise in the archipelago to take over from the departing Dutch. Civil engineer J. Thijsse, a member of the Crane Mission, was one of the few Dutch to remain after 1945, when Indonesia first declared its independence. Thijsse had lived in Bandung since the 1920s and provided a link to Dutch colonial planning practices. Significantly, Geddessian planning ideas became influential in the Dutch East Indies after they were introduced in the 1930s by J.M. de Casseres (1902–1990) (Bosma 2014). Casseres’ Geddessian methodology, “planology”, was embraced by Thomas Karsten (1884–1945), the “founder of modern city planning” in Indonesia (Prijitomo 1996, p. 4). Thijsse was a disciple of Karsten, and helped him produce an analysis of Bandung for the 4th CIAM Congress in 1933, when Dutch planner Cornelis van Eesteren was CIAM president (Roosmalen 2005). In 1946, Thijsse, then head of the Central Planning Bureau, was named Professor of *Planologie* at the Technische Hoogeschool (TH) in Bandung. While on a tour to study planning practice and education in Western Europe, Thijsse attended the 1946 IFHTP congress—and may well have attended Tyrwhitt’s meeting on planning education (Roosmalen and Shoshkes 2016). In 1949, Thijsse returned to Bandung where he lectured on town planning at the Engineering School, which opened in the former TH as a division of the new Universitas Indonesia (UI).

## Converging Transnational Networks

Meanwhile, Tyrwhitt was becoming a transnational actor, working on both sides of the Atlantic as a member of the CIAM inner circle, and helping Charles Abrams establish a new planning course at The New School for Social Research in New York. She also continued to facilitate interchange between the Regional Planning program at Harvard’s GSD and SPRRD (recreating Unwin’s prewar role as the agent of that exchange). SPRRD had almost closed in the summer of 1948, since Rowse’s Diploma Course didn’t conform with TPI’s curriculum, which narrowly focused on implementation of Britain’s 1947 Town & Country Planning Act

(TCPA). Tyrwhitt had recognized early on that the school would need help from former students and had inspired a group of alumni to form the School of Planning Club, which convened its first annual meeting in 1949. Both Tyrwhitt and the Club tried to help save SPRRD, by reorganizing the school to focus on planning for the British Commonwealth and Colonies, from where many of its students had come and a large proportion of graduates were working. With the UN's TA program and the Colombo Plan, which began in 1951, there were more opportunities for planners overseas than in Britain, which was struggling with a prolonged postwar recovery.

Tyrwhitt had her first chance to work for the UN in 1950, when Abrams enlisted her to write the introduction for an issue of the *UN Bulletin* he was editing (see Tyrwhitt 1951). This marked the beginning of Tyrwhitt's long association with Yugoslavian architect and longtime CIAM member Ernest Weissmann (1903–85), who, with Crane's support, became Assistant Director of the new Town and Country Planning Section of the UN Division of Social Affairs in 1951. That year Tyrwhitt worked closely with Weissmann and CIAM president Jose Luis Sert in New York on inter-related UN and CIAM projects. Weissmann's staff attended the 8th CIAM congress—largely organized by Tyrwhitt and hosted by the MARS group (including many School of Planning Club members)—and a concurrent IFHTP meeting to encourage their participation in the UN's Technical Assistance (UNTA) program and research projects, which included studies of low-cost housing in tropical areas and the education of planners.

Based on her close working relationship with Weissmann, in 1952—when she was based in Canada, setting up the first graduate planning program at the University Toronto—Tyrwhitt sought his help in securing UN funding for the proposed reorganization of SPRRD to specialize in Commonwealth planning. She suggested as a model the newly established Inter-American Housing Research & Training Center (CINVA), where the director, Anatole Solow, was an SPRRD alumnus (and Club member.) Weissmann (1952) agreed in principle, “since it will provide instruction in housing and community planning on a regional basis within the region itself. It may be possible to initiate a number of such institutions.”

Concurrently, members of the School of Planning Club were crafting their own curriculum to train planners in developing areas and had launched a *Bulletin*, intended to be “an informal screed” devoted to new material on regional planning worldwide. The editors, based in Singapore, Gold Coast and London, invited Tyrwhitt to write an editorial for the second issue, published in 1952. She observed that the editors’ “far-flung-ness was deliberate.” In Britain, preoccupation with implementation of the 1947 TCPA tended to blind planners “to the wider issues of regional planning in the world at large, or even in Britain vis-à-vis the world of the future,” (Tyrwhitt 1952, p. 1) argued. “All those who have had experience outside Britain will be ... well aware of the need for Regional Planning—and it is to those people, and from those people, that this *Bulletin* is directed.” The School of Planning Club provided an important network fostering exchange and mutual support among SPRRD alumni and friends worldwide.

Impressed by Tyrwhitt's expertise, organizational skills and ability to operate through transnational networks, Weissmann was eager to enlist her in the work of

his section. When the Indian Government requested UN assistance with an International Exhibition on Low-Cost Housing, Weissmann successfully recruited Tyrwhitt as Project Director both to advise the government on its exhibition and to organize a concurrent seminar—where a main discussion topic would be the education of planners—to further promote the exchange of information.

Tyrwhitt began her preparatory work at UN headquarters in New York in June 1953, lining up seminar discussion leaders, including Crane, Abrams and Thijsse. She traveled to India after meeting in Europe with representatives of the four UN specialized agencies participating in the seminar and exhibition. In July 1953, Tyrwhitt returned to Europe to attend the 9th CIAM congress in France. In this way she established linkages between CIAM members working in tropical regions, Sert, who was now Dean at GSD, and the UN Seminar, furthering the cross-fertilization of planning ideas and paving the way for future institutional collaboration.

In September 1953, Tyrwhitt toured India and Southeast Asia to confer with key people involved with the seminar and newly placed UNTA advisors in the region. In Jakarta she met with the chief Indonesian delegate to the Seminar, Ir. (engineer) Kus Hadinoto, head of the Department of People's Housing; and British architect Clifford Holliday, a UNTA advisor on a master plan for Jakarta. Tyrwhitt spent two days in Bandung with Thijsse. She was delighted to discover that Geddesian and modernist planning ideas were well established in Indonesia.

Tyrwhitt also made an unofficial visit to Singapore, where she met with two SPRRD alumni, Kenneth Watts and Lincoln Page, who worked there. Watts, an editor of the School of Planning Club *Bulletin*, wanted to work in Indonesia and sought Tyrwhitt's help. Later, when Holliday was hiring his replacement in Jakarta, he asked Tyrwhitt for a reference for an SPRRD alumnus applying for the job; Tyrwhitt instead recommended Watts. Once established in Jakarta, Watts played a key role in establishing the new school in Bandung.

## **UN Seminar, New Delhi, 1954**

The UN Seminar on Housing and Community Improvement in Asia and the Far East—the first of its kind—convened in New Delhi in January 1954. Official delegations were sent from eleven countries and observers arrived from four more. Five alumni of SPRRD came from all over India, and Page attended from Singapore. The delegates affirmed the importance of comprehensive physical planning as a distinct profession. The challenge was how to introduce planning education in countries where the profession was not yet well established. Thijsse reported that a separate course in planning was rejected in Indonesia, since “the need was not only for planners, but also for engineers and architects, so it was thought better to give some extra training in planning in the architectural and engineering courses” (United Nations 1957, p. 100). The discussion then turned more theoretical, and considered an ideal long-term program. Tyrwhitt proposed six hypothetical stages for training town planners—based on various levels of national

readiness—culminating with a specialized degree course “when everybody has come to realize that now is the time that a-hundred-per-cent planners are absolutely necessary” (United Nations 1957, pp. 100–101). The group agreed on Tyrwhitt’s typology, and also resolved to request UN support for another meeting specifically on regional planning, as this specialization was of particular importance in Southeast Asia.

In making its recommendations the Seminar confirmed that “eventually planning schools should be established in each country or State in Southeast Asia. The needs of students interested in planning throughout the region are somewhat similar, and this fact should be taken into account in developing the curricula for those schools which are first established, as these will have to serve as ‘regional’ schools for the time being” (United Nations 1957, p. 110). Those recommendations—and Tyrwhitt’s typology—were ratified in the subsequent UN Regional Seminar on Training for Town Planning held in Puerto Rico in 1956. Thus, Weissmann’s idea to create a global system of regional research and training institutes was adopted as UN policy. The question now was to find a willing host country to implement the idea. Indonesia was a good candidate because a foundation had already been established that resonated with the approach that Crane, Weissmann, and Tyrwhitt were promoting.

## **A Planning School in Indonesia**

Hadinoto, who became director of the UN-sponsored Regional Housing Research Center that opened in Bandung in 1955, had long been interested in establishing a physical planning course within the School of Architecture at UI Bandung. In 1956, he discussed this idea with Watts, who arrived in Indonesia that year as Halliday’s successor (thanks to Tyrwhitt). When Indonesian President Sukarno signed an agreement with the US Government in 1956 to help modernize Indonesian higher education, the United States Agency for International Development (USAID)—then known as the International Cooperation Administration—contracted with the University of Kentucky (UK) to develop an engineering and scientific research and training center in Bandung by reorganizing existing UI Bandung departments. This resulted in the formation of an independent institution, later known as the Institut Teknologi Bandung (ITB). Hadinoto, a member of the faculty, recognized the opportunity to propose a planning school as part of this new institution, a pilot for the global system of research and training institutes Weissmann envisioned.

Hadinoto found an influential ally in the engineer Soefaat, a graduate in planning from the University of Pennsylvania (Penn), who returned to Indonesia in 1956 to become Chief of the National Bureau of Town Planning. At that time, G. Holmes Perkins, then Dean of the School of Fine Arts at Penn, was leading a UNTA team in setting up an architecture and planning program at the new UN-sponsored Middle-east Technical University in Turkey (Abrams 1970). Soefaat had discussed the idea of getting similar assistance from an American university with Weissmann,

who lectured at Penn, and Penn professor Martin Meyerson, who was then about to become a senior member of the GSD planning faculty. These discussions continued at Harvard with Sert and Tyrwhitt, who had joined the GSD planning faculty in 1955.

The emerging UN-Harvard partnership was reinforced by Watts, who had been traveling around Indonesia to advise on UN assistance projects and assess training needs. In September 1957, Watts (1997) reported to Indonesian government agencies and the UN that he had confirmed the need for a planning school, and recommended UN assistance to create this school at the new ITB. This institution building effort became more urgent in December 1957, when President Sukarno seized Dutch assets and 50,000 Dutch citizens left the country. Only one Dutch professor, an architect, remained (Roosmalen 2005).

In 1958, the Bandung Faculty Senate approved the creation of a physical planning department within the Engineering School, triggering Meyerson, Tyrwhitt, and William Doebele, who became a key member of the team when he joined the Harvard faculty that month, to begin work. Hadinoto and Soefaat served as Indonesian advisors to the UN-Harvard team. The challenge, Doebele (1962, p. 97) recalled, was “to attack head-on the question of education for a kind of planning that does not yet actually exist.” The issues they addressed included: transferability of Western planning ideas to an Southeast Asian developing country context; selection of faculty from Indonesia who would be trained in North American universities and then return to teach; and creation of a sustainable capacity to engage in urban development research that would serve the Southeast Asian region. They named the new department Regional and City Planning—reversing the conventional order—to underscore the importance of regional planning in developing countries.

Watts joined the discussions at Harvard—which were proceeding in tandem with preparations for a UN Asia Seminar on Regional Planning to be held in Tokyo in July—when he visited Tyrwhitt in 1958. Following his visit Tyrwhitt felt assured enough to mobilize her networks: she wrote to one of her students, then in Australia, who would be attending the UN Seminar in Tokyo, that confidentially, Harvard was “about to undertake the sponsoring (in quite a big way) of a new SE Asia School of Planning,” and asked her “to make certain contacts in this connection” during her travels (Tyrwhitt 1958).

The UNTA mission in Indonesia approved a 7-year plan for the UN-Harvard team to establish the school, and the formal agreement was signed at the UN Seminar in Tokyo. Meyerson went to Bandung in January 1959 to finalize arrangements to open the school that September. That year, Doebele and his wife, Mary, served as the first resident UNTA advisers. Sert and Tyrwhitt were to go together the following year, but Sert had to cancel. Tyrwhitt had agreed to spend only six months as the resident adviser; she would be on her own.

## *Tyrwhitt in Bandung*

Luckily, when Tyrwhitt arrived in Bandung in December 1959, she found that much of the hard work had been done; taking advantage of her familiarity with the region, she moved the program forward without difficulty. In 1960 Tyrwhitt wrote to a friend:

It is so easy here! First I am doing something I find interesting and something I have done many times before: training young and intelligent people in the elements of the practice of urban planning. The simple techniques of conducting a survey and interpreting material and determining the main lines of a plan. ... It's also extremely interesting for me to see how to vary the same basic techniques to meet the conditions of this country....

Before leaving in July, Tyrwhitt (1960b) reported on what she had accomplished and outlined the next phase of work. The main tasks during the start-up period (1959–61) “have been and still are: to get good students enrolled and to teach them; to get adequate building space and a good library; to frame the long-term curriculum and to enroll a first class Indonesian faculty to be trained abroad.” Tyrwhitt taught an introductory lecture course and co-taught two planning studios. Students undertook field surveys of nearby villages, which formed a basis for the determination of plot sizes in the plans they would make for those areas; they assumed that people would build their own houses with local materials.

As there were no texts for those courses, Tyrwhitt devised a cost-effective strategy to publish provisional manuals; Watts authored the first one, on survey methods. To supplement class work with field experiences, Tyrwhitt helped organize paid summer internships, which were a success. Tyrwhitt also took a special interest in the school's library, to which she donated a large slide collection. In a report on the ITB planning school in *Ekistics*—a journal she co-founded with Greek planner Doxiadis in 1956 to report on planning for human settlements in developing regions—Tyrwhitt (1960a) noted with pride that it represented what her “mentor,” Crane, considered to be one of “the most hopeful areas of achievement” in international cooperation: “the promotion of technical education within the country receiving technical aid.”

Looking ahead, Tyrwhitt (1960b) thought: “The end of 1963 probably represents the first moment that the school could safely make its existence widely known in Southeast Asia.” To celebrate this final phase, she proposed that a long-discussed UN Seminar on Planning, Training and Research in Southeast Asia be held there in January 1964: “It is reasonable to believe that by then the need for UNTA/Harvard guidance of the school's development could be considered to have reached its end. The whole project should be ripe for a new stage of development: the actual setting up of an SE Asian Center for advanced training and research in regional planning.”

Meyerson wrote to Tyrwhitt in July 1960: “The UN is very pleased with all that you have done and are only astonished, as we all are, at your energy.”

## ***Institutionalizing the ITB School of Regional and City Planning***

Back in the U.S., Tyrwhitt collaborated with UN personnel in New York, and with Meyerson and Doebele at Harvard, to support the new school. She identified candidates for UN faculty training fellowships and agreed to help oversee their studies; much thought was given to “the selection of talents who would draw up the detailed curriculum later” (Tyrwhitt 1961b). Tyrwhitt (1960b) was particularly concerned about “the whole question of the organization of a worthwhile and financially sound program of research, both to make full use of the newly developed skills of returning Indonesian faculty members and to provide them with additional income.” At a meeting at UN headquarters in October 1960, she reiterated a previous plea to restore funding for a second UN expert in Bandung to deal specifically with the research program. She hoped the UN could diplomatically suggest that the Government include this position in its 1962 program budget; that did not happen, though. Tyrwhitt also proposed that the Indonesian faculty members in North America on UN fellowships meet at Harvard in the spring to review their work with Harvard staff. The UN agreed to sponsor that meeting if Tyrwhitt convinced other funding organizations to send their fellows, too, which she did.

Due to the rapport she established in Bandung with students and faculty, in 1961 the chairman of the newly formed Indonesian Planning Students Association wrote asking for her help in making contacts and in setting up their own professional association. Tyrwhitt (1961a) urged them to contact the future Indonesian faculty now abroad, as this problem “must be worked out in Indonesia,” and assured them that their letter would be “thoroughly discussed” by all future faculty, UN officials and Harvard faculty when they met at Harvard.

At the Harvard conference, future faculty discussed their studies, courses to be taught at ITB, their research program, and how best to collaborate. Particular attention was paid to the student organization’s letter, as Tyrwhitt promised, to underscore the importance of institutional development. Participants agreed, “that the establishment of the profession was one of the most important and difficult issues that will arise once the first graduates have been produced. This was a matter which both the faculty and the students should cooperate in solving ... in a way that would be most useful in the culture and institutions of Indonesia” (Harvard University 1961).

Conditions in Indonesia were turbulent during the next several years. Even though she was unable directly to influence the course of events, Tyrwhitt remained dedicated to the planning school. She also accepted an invitation from Soejoedi Wirioatmodjo, head of ITB’s Architecture Department, to represent them in the U. S., especially to help their faculty continue to receive training fellowships. Wirioatmodjo (1963) wrote: “We would like to be under the patronage of someone not only with authority in architectural and university circles, but with knowledge about the situation of and a warm heart for our school in Bandung. Such a person, dear Professor Tyrwhitt, we thought you to be exactly and without reserve.”



When Meyerson left Harvard in 1963, he entrusted the significant investment he had made in the Bandung project to Tyrwhitt, who, along with Doebele, replaced him as UN Senior Advisors. Political turmoil prevented the return of Harvard faculty to ITB at that time. Tyrwhitt attempted to build up a “new continuity” with Australian UNTA resident advisors, and stayed informed through her network of SPRRD alumni in the region and quasi-insider status at UN headquarters. But in January 1965, Indonesia withdrew from the UN. In September, a bloody revolt against Sukarno’s government drove all foreign agencies out of the country.

Meanwhile, a new regime was also being put in place at the UN. A Center for Housing, Building and Planning was established in 1965, with Weissman as founding director; he retired in 1967. Tyrwhitt was also phasing into retirement from Harvard and wanted to focus on international development consulting. When she received support from the Ford Foundation in 1967 to advise on the establishment of a new planning program in Singapore, Tyrwhitt took advantage of the opportunity to visit Bandung, where she was pleased to find the ITB planning program thriving. More than half of the 13 graduates of the program were working in the regional planning field, including four with the Ministry of Public Works. Members of the first graduating class founded the Indonesian Planners Association in April 1971, electing Kus Hadinoto as chair.

In order to forge a connection between the new program in Singapore and the existing programs in Bandung and the Philippines, Tyrwhitt advised that Singapore focus on urban design, to complement the emphasis on regional planning in Bandung and on administration in the Philippines. Bandung, however, was not interested in such coordination, probably due to ongoing domestic unrest—one obstacle in establishing a new regional entity in an area where the priority for new nations was to strengthen their own institutions. The Bandung program’s continuing success, though, testified to the dedication of the Indonesian faculty and the resilience of the institution that Tyrwhitt and the rest of the UN/Harvard team helped to build.

## Conclusion

Anglo-American exchange in the 1920s and 30s fostered the consensus that emerged on the conception of planning pioneered by Geddes, which inspired Rowse’s prewar School of Planning. Tyrwhitt developed a synthesis of Geddesian bioregionalism and the tenets of European modernism during the wartime context. The correspondence and postwar completion courses that Tyrwhitt ran through SPRRD ensured the wide diffusion of this set of ideas. But it was Tyrwhitt’s participation in the postwar renewal of transnational exchange that stimulated the further evolution of this Geddesian line of modern planning thought, as Tyrwhitt helped develop new planning programs in a variety of cultural and institutional settings in Europe, North America and Asia. Focusing on her role in the establishment of the school of Regional and City Planning in Indonesia, this chapter

illuminates how Tyrwhitt exerted her influence through creative engagement with educational and research institutions, professional associations, and international development agencies. It shows that she not only played an important role in building the tightly knit transnational community of those concerned with planning education that formed under the auspices of the UN, but also was instrumental in shaping the shared body of ideas that emerged from that community. The internationalization of planning education was one important outcome of the transnational life she led, one of her many contributions to planning theory, pedagogy, and practice.

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# Chapter 6

## Six Decades of Planning Education in China: Those Planned and Unplanned

Li Hou

**Abstract** This chapter attempts to provide a holistic picture of the history of China's professional urban planning education in the modern era: its beginning, subsequent downturn, heyday, and future challenges. Both quantitative and qualitative development is briefly recorded in this chapter. Planning education in China is above all a physical and technical professional training, with origins in civil engineering and architecture schools, and has contributed to building a relatively homogenous and young profession. The system has survived and thrived in the transition from a planned economy to a more and more market-driven one, serving the needs of rapidly growing Chinese cities. Nevertheless, the legitimacy of physical planning in China could face fundamental challenges in a rising civil society, and it is the key mission for future Chinese planning education to provide a solid training ground for these possible shifts, in terms of planners' values, attitudes, skills, and knowledge.

**Keywords** Urban planning • Planning education • China • Planning history

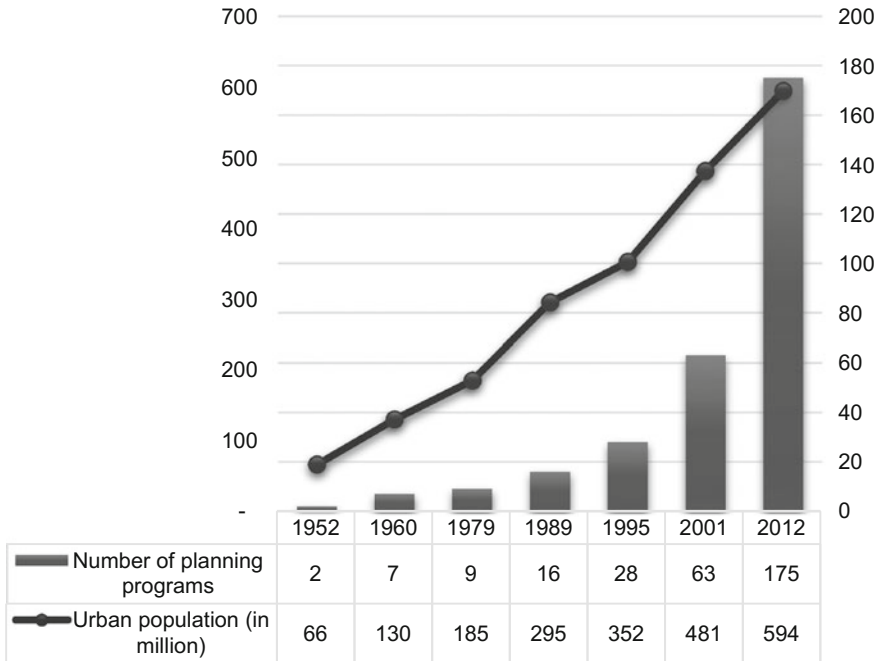
### Introduction

In the past decades, China's unprecedented urbanization and fast growing urban economy has profoundly transformed the domestic as well as the global landscape. Especially since entering the twenty-first century, urban planning has become one of the most attractive professions for Chinese young men and women. Urban planning in China, largely as a state practice, has grown rapidly in scope, in its complexity, and in the number of career opportunities the field provides. Chinese planning education within higher education institutions, under the influence of these great opportunities and the wider context of rigorous urbanization and development,

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**Fig. 1** Growth of Chinese planning programs in engineering schools (1952–2012) (data from 1952 to 1989 summarized from planning schools’ self-accreditation reports by author; 1995 data from the survey taken by Zhao Min and Zhong Sheng, Tongji University; 2001 and 2012 data provided by Ministry of Construction and Ministry of Education)

also experienced unprecedented growth and is attracting more and more smart and ambitious students. By 2012, the number of planning programs offered by Chinese higher education institutions had risen well above 300. These figures include 175 programs run by engineering schools following a period of exponential growth since the mid-1990s (Fig. 1), in addition to approximately 166 programs established in other faculties such as geography schools. Nowadays, there are more than ten thousand planning students graduating every year, which has made it the largest planning education system in the world. Planning schools in the rest of the world are also influenced by this increasing interest as well as student population. It is no longer uncommon to see some English, American or European planning programs filled with Chinese students, as more and more families can afford to send their children to study abroad, and Chinese planning schools alone can no longer meet growing demand.

One direct outcome of this new century boom is that urban planning has literally become a very young profession in China. The average age of planners in most planning institutions, no matter public or private, is around 30 or even younger. The majority of them graduated after 2000. Considering the scale, the integrity and the rising power of the profession, no other planning system in the world has exerted

such influence over shaping the built environment across cities and countryside. This poses even greater challenges for the education of the country's planners. Therefore, it could be said that this is not only a challenge for Chinese planning education, but for planning education globally.

If we examine the history of Chinese planning education, however, growth is not the only key word. The history of Chinese planning education must be reviewed in the context of the general history of modern China, the Chinese state, and its socioeconomic development, and the nature of urban planning as both an academic discipline and a profession. In the early twentieth century, urban planning as a discipline was first introduced to China from the “West”—mostly via the US and Europe, but Japan was another important source of influence—as part of a whole package of “modern science and technology,” a useful tool for modernizing China. However, urban planning failed to turn into a meaningful practice in the first half of the twentieth century due to frequent outbreaks of war. It was not until the mid-1950s that urban planning as an independent training program was established, at the same time when urban (physical) planning as a form of state practice was being institutionalized into the state apparatus following the Soviet model. The legacy of Western and Soviet influence still exists after six decades of rigorous development and reform. Nevertheless, Chinese planning education has attempted to develop a path of its own.

Based on intensive interviews, archival research, statistical data as well as personal experience, this chapter is one of the first attempts to provide a holistic picture of the history of China's provision in urban planning in higher education, its beginning, subsequent downturn, reformation, and heyday. Its planned and unplanned development trajectory corresponds closely to the cyclical trends of China's macropolitical and socioeconomic development, whose rise and fall often predicted the feverish or crisis moments of state-dominated urban construction. The chapter cannot address every development of Chinese planning education, but aims to provide a context for comprehending, as well as reflecting on its six-decade long path. This includes the way that the Chinese planning schools historically responded to social and state demands, and the lessons that could be learned from the perspective of today.

## **The Origins and Pioneers**

Conceived largely as a physical design discipline, planning education in China owes its origins mostly to engineering and architecture schools. Modern higher education was established in China at the turn of the 20th century (Du and Ding 2004). Under schools of civil engineering, city planning as an emerging new field had been introduced into the curriculum by pioneer thinkers as early as the 1920s. In some cases city planning education was developed together with architecture programs, in others independently. For example, Jiaotong University and Tongji University were among the first few engineering schools recorded to develop a

concentration on “municipal engineering” (*shi zheng gong cheng*) for senior civil engineering students, including offering “civic design” (*shi zhen she ji*) lectures (Tongji University 2007). Transportation planning, especially the design of modern highways and vehicle roads accommodating a motorized future, as well as modern infrastructure engineering were the key focus of higher training in these civil engineering originated planning programs.

Many first-generation Chinese planners were educated in engineering schools. For instance, Shen Yi, formerly the head of Public Works Bureau in Shanghai in the 1930s and Mayor of Nanjing in the 1940s, who was in charge of making the Greater Shanghai Plan and the Capital Plan, was one of the first graduates from Tongji civil engineering school (Shen 1985); Zhao Zukang, the head of Public Works Bureau in the 1940s and later Vice Mayor of Shanghai in the 1960s and 1980s, and Zhu Jieping (also known as Peacecall T.S. Chu), the first Chinese professor of planning on record, received their undergraduate education from Jiaotong University (Li and Guo 2010).

China’s first modern architecture school, Suzhou Higher Technical School (SHTS) provided lectures on “town planning” (*du shi ji hua*)<sup>1</sup> as early as 1924. Liu Shiyong, who received his professional education from Tokyo Higher Technical School (THTS)<sup>2</sup> and who founded the architecture program of SHTS, initiated that course. There was no equivalent planning education offered in Tokyo Higher Technical School at the time. However, Liu was greatly influenced by the two faculty members in the department of architecture in THTS, Shiga Shigetsura,<sup>3</sup> and Maeda Syoin,<sup>4</sup> who were pioneers in the discipline of town planning in Japan. The course of “*du shi ji hua*” was continuously offered after the architecture department in SHTS was transferred to the Fourth Zhongshan University, which was later renamed as the Central University and then Southeast University from 1952. Bao Ding, who received his architectural education in University of Illinois at Urbana-Champaign (UIUC), replaced Liu as the instructor in the 1940s (Wu 2005).

During the 1940s, while the end of World War II was far from sight, town planning received its first state recognition in the hope of future postwar construction. The Republican Government released state laws on town planning and reconstruction right before the end of the war. Some leading municipalities, such as

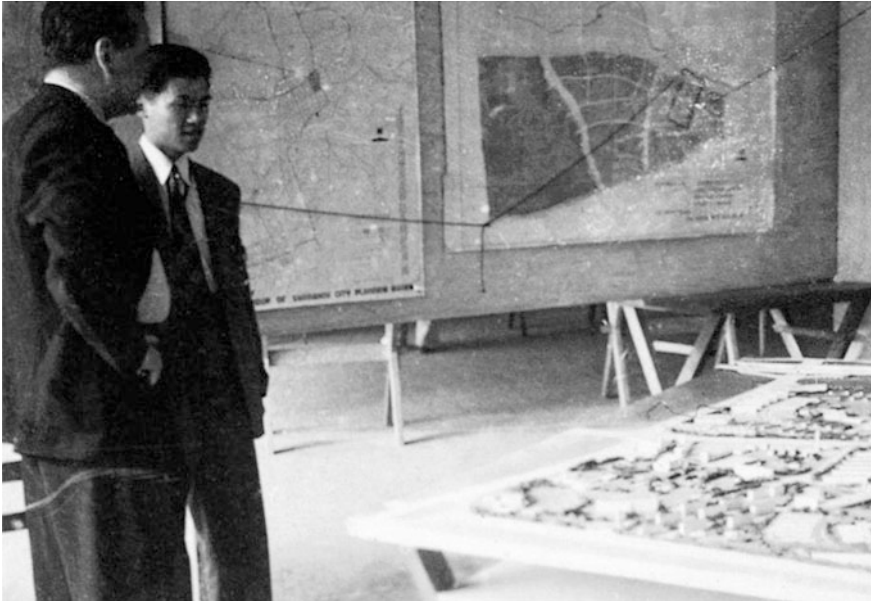
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<sup>1</sup>Urban planning was mostly called *du shi ji hua* 都市计划 in China before 1949 and *cheng shi gui hua* 城市规划 after the ideological shift. The former name was from Japan while the latter was influenced by the Soviet. In this paper, *du shi ji hua* is translated as “town planning” while “urban planning” is used for *cheng shi gui hua*, in order to distinguish the two terms in different historical contexts.

<sup>2</sup>Tokyo Higher Technical School was later renamed as the Tokyo Institute of Technology, founded in 1881, 14 years after the Meiji Restoration, which is the largest institution for higher education in Japan dedicated to science and technology.

<sup>3</sup>Shiga Shigetsura graduated from University of Illinois at Urbana-Champaign.

<sup>4</sup>Maeda Syoin was a practicing architect as well as an active planner hired by Kwandong Army in Dalian in 1905. He later went to the UK for further study and it was claimed he was the first Japanese to visit Letchworth. Maeda was among the first generation of planners in Japan, from 1912 to 1926.



**Fig. 2** Town planning exhibition organized by senior students in the Department of Architecture Engineering, St. John University, Shanghai, in 1947 (Richard Paulick Legacy, TU Munich)

Beijing, Shanghai and Nanjing, established town planning commissions to oversee municipal planning. It had become common for Chinese elite architecture and engineering schools to offer lectures or even studios on city planning topics for senior students.

Such architecture schools included St. John University, an American commissioned university in Shanghai (Fig. 2). Richard Paulick, a German architect and planner, who received his Diploma of Engineering in Architecture from the Technical University of Berlin and had worked for Walter Gropius at the Bauhaus in Dessau before the war broke out, was appointed as the first professor of town planning in the Department of Architecture Engineering at St. John (Hou 2014). Chen Zhanxiang, who graduated from the University of Liverpool as a student of Abercrombie, returned to China in the mid-1940s, also helped to teach town planning at St. John University for a short time period.

In 1946, Tsinghua University established its architecture department. Liang Sicheng, the founder of the department, submitted his proposal to the Ministry of Education of Nanjing Republican Government to set up a “town planning” major under the Department of “*Ying Jian*”, a traditional Chinese term for building and architecture craftsmanship, but failed (TUSA 2006). However, the curriculum he envisioned for the program was published on the *Standard (wen hui)* newspaper and was influential to many architectural schools in the late 1940s.



Generally speaking, planning education in China in the first half of the twentieth century was a close copy of that in the more urbanized world. So was the curriculum setup. Lectures were often offered in foreign languages, with readings directly imported or translated from English, Japanese, German, or French texts. Town planning, theory or practice, were basically all imported goods at the time and yet to be tested on the ground. From 1945, the desire to restore urban construction following the end of the Second World War did offer some opportunities for architecture and engineering students, and professors to be involved in real-time practice, such as in Shanghai or Beijing (Dong 2007; TUSA 2006), but was soon disrupted again by the outbreak of Civil War one year later.

### The First Boom and Its Shut Down (1952–1960s)

The 1950s saw the start of state-led industrialization and the rebuilding of a nation-state. In a centrally planned economy, cities are characterized by the building of infrastructure for industrial production. Thus, the mission of urban planning in the People's Republic of China was to implement economic plans, whose main job was to locate industrial plants and build workers' housing (Cao and Chu 1990).

In 1952, Chinese higher education institutions went through a comprehensive restructuring. The polytechnic university model emphasizing science and technology prevailed as more efficient preparation for the state's heavy industrialization projects. The Ministry of Education in the People's Republic implemented strategies concentrating limited resources on major universities and colleges. Universities and colleges, formerly public or private, were intensively specialized or annexed under new regulation.

The first independent urban planning program appeared from this national wave of institutional restructuring. Since then planning was listed officially as a subdiscipline (*er ji xue ke*) under architecture and differentiated more and more from civil engineering. This state-controlled, top-down management of higher education provision helped to shape the integrity as well as homogeneity of planning education in China, which is still the case today. Nevertheless, the duality of emphasizing urban planning as modern science and technology rooted in engineering schools and as art in architectural schools continues to exist in contemporary China and has become an important source of internal frictions.

In 1952, having subsumed most architecture schools and some civil engineering faculties in East China, the Faculty of Architecture at Tongji University proposed to install "town planning and management" (*du shi ji hua yu jing ying*) as an independent undergraduate program. The program was renamed as "urban construction and management" (*cheng shi jian she yu jing ying*) with reference from the Soviet

higher education directory<sup>5</sup> to avoid criticism of the term “*du shi ji hua*” being the language of the “capitalist world” (Dong 2007). According to the curriculum approved for the “urban construction and management” program at Tongji University by the Ministry of Education in 1954, the training of first-generation planners in the People’s Republic was based on the curriculum offered by the Soviet college system, but also carried a legacy of its past before 1952. For example, Tongji University was built upon the German polytechnic school model in the early twentieth century, whose training was focusing on mathematical calculation and scientific resolution along with mechanical workshops and real-time practice. It fit smoothly into the Soviet curriculum. The curriculum was composed of three parts and heavily engineering-based: architecture and building structuring, urban planning and design, and municipal engineering. Several workshops were offered to students, including road and transportation infrastructure engineering and design, urban land preparation engineering, water supply and drainage calculation and drawing. Nevertheless, this program also provided fine art training influenced by the French *Ecole des Beaux-Arts* tradition. Freehand drawing, water color rendering, as well as design studios for workers’ dormitories and city centers were a concrete part of the curriculum.

In 1955, the Central Government began to reflect on the blind copying of the Soviet model. Tongji University applied to establish a new program titled “urban planning” (*cheng shi gui hua*) under its architecture department and it was immediately approved by the Ministry of Education (Fig. 3). In 1956, students were recruited under the major of “urban planning” and followed a new curriculum which moved away from the polytechnic model to a more *Beaux-Art* oriented one. An art exam was added as a prerequisite for planning students. The first 2-year training program for planning students provided by the Faculty of Architecture was not much different from its architecture program. And design studios have since become the center of planning education across 5 years, ranging from architectural design, residential microdistrict design to regional planning. The extracurricular courses in summer changed from building and construction workshops to city survey and planning practice. Economics of urban construction lectures were offered by practitioners from the Shanghai Urban Construction Bureau.

During the First Five Year Plan period (1953–1957), some elite architecture schools, that is, Tsinghua University and Tianjin University, consequently provided city planning as a specialization for senior students after three years of architectural education. One more year of planning education as a major, including regional planning and urban infrastructure engineering, made up the difference between planning as an independent program or a specialization as part of a major in architecture.

Since 1957, the “Great Leap Forward” movement had accelerated urban construction all over China. In a short period of 3 years, the population in urbanized

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<sup>5</sup>Russian architecture schools, such as Moscow Architecture Institute, did not offer independent planning programs in the 1950s. The name was from its 3-year college programs.



**Fig. 3** Graduation defense of planning students at Tongji University in 1955 (image courtesy of Prof. Deng Shuping, Tongji University)

areas increased by 50 million (Cao and Chu 1990). To catch up industrial construction, “fast planning” and “fast construction” methods were encouraged from above, which allowed physical planning to discard the rigid methodology borrowed from the Soviets and to explore more practical and convenient ones. During the “Great Leap Forward” period (1957–1960), under the supervision of the Ministry of Architecture Engineering, two more engineering schools, one in Chongqing and the other in Jinan, Shandong Province, established their stand-alone planning programs. More architecture schools were encouraged to offer planning as a specialization as well, such as Harbin Engineering University (1958), South China College of Engineering (1958), and Nanjing College of Engineering (1958).

In the 1950s, Chinese planning education was based on knowledge and theories imported from the West before 1949 (when most of the Chinese first-generation planning faculties were trained overseas), limited experimental practice of faculty members in a few Chinese cities, and dominantly the Soviet experience. Many textbooks and publications from the Soviet Union were translated into Chinese in the mid-1950s and became important references for planners’ work.

The mission of Chinese urban planners in the 1950s was mostly industrial city planning: to locate state-invested factories in often rural and remote areas and to provide worker’s housing for the working population with their families. Initially, the Soviet standards of planning and construction were applied. While the plans were carried out, they appeared improper for many Chinese cities.

In 1959, after the tenth anniversary of national day, the Central Secretariat of the China Communist Party Central Committee issued instruction to review the national education system and required all universities to edit textbooks. In the field of urban planning, as the profession was under serious critique after the Great Leap Forward (i.e., for improperly using national resources on nonbasic construction), Li Fuchun, the vice Prime Minister and head of State Planning Commission, specifically required the Ministry of Architecture Engineering to organize the writing of a textbook focusing on “developing theories and methodology of planning that match with [the] Chinese situation.” Professors from Tsinghua University, Tongji University, Nanjing College of Engineering and Chongqing College of Architecture and Engineering were called to compile a textbook on Chinese urban planning principles (UPSC 1999; Wu 2005). *Town and Country Planning*, the first official planning textbook, was published in 1961. The book reflected on lessons learned from the Soviet Union, and attempted to establish planning theory and principles “with Chinese characteristics.” The title of the book implied the ideology of favoring countryside over cities and the development strategy of integrating city and countryside. A special chapter was dedicated to rural planning of the People’s Commune.

Planning education continued in China, albeit in an increasingly difficult situation during the Famine period (1960–1962). All urban construction was stopped and urban planners were no longer needed except for a few national strategic projects. Planning programs were shut down in Chongqing and Jinan.

The “Design Revolution” carried out in the mid-1960s intervened in planning education. Under the critique of “isolated from the proletariat, from mass, from practice,” planning professors and students spent time visiting countryside and factories (Fig. 4). “Learning by doing” became the new norm. The art exam was criticized as it had prevented students from poorer background entering the profession and was hence canceled. In the late 1960s and the 1970s, as part of national higher education reform, more “worker–peasant–soldier” students were enrolled in the planning program through a local recommendation system without exams. In 1969, under the threat of a seemingly unavoidable war with the Soviet Union, the last class of urban planning students at Tongji graduated in a hurry and faculty members were dispersed to the “Third Front” or to the countryside (Dong 2007; Ma 2012). Planning education was not restored until the early 1970s.

## Recovery and Re-Open (1970s and 1980s)

In the mid-1970s, restoration of the urban planning profession and education was brought into discussion as urban construction reappeared on the state agenda. In December 1972, the State Bureau of Urban Construction (SBUC) was established under the State Basic Construction Commission to administer urban planning practice and the profession (Cao and Chu 1990). In September, 1973, the SBUC



**Fig. 4** Planning students and faculty from Tongji University visiting Qingpu countryside, Shanghai in the early 1960s (image courtesy of Prof. Dong Jianhong, Tongji University)

organized a national conference on urban planning work in Hefei, Anhui Province, which signaled the official return of urban planning work in China.

Planning education was resumed firstly in the form of cadre training programs. Geography schools became an importance source of planning education providers as the discipline was encouraged to increase its “social utility” (see Fig. 5). On the other hand, geographers were expected to add “scientific components” in planning (Xu 2009).

In 1977, the university entrance examination was restored under the new central leadership of Deng Xiaoping. Planning schools were able to select students based on intelligence and art skills instead of peasant or worker backgrounds. Departments of economic geography at Peking University, Nanjing University and Sun Yet-Sen University began to enroll students majoring in “urban and regional planning.” Several more planning programs were established in the engineering schools of Wuhan (1979), Anhui (1983), Suzhou (1985), and Xi’an (1986). By 1980, at least 13 architecture and engineering schools, and three geographic departments offered “urban planning” higher education.

The growth of planning education in the 1980s was rather slow compared with the national resurgence in urban construction. The newly established planning programs had been carefully chosen, mostly in provincial cities, such as Wuhan, Hefei or Hangzhou, to achieve a better regional balance. The 1980s saw more rigorous growth in town and village enterprises and rural-driven urbanization.



**Fig. 5** Faculty from Economic geography section, Department of Geography, Nanjing University discussing an urban design project in Nanjing in late 1970s (image courtesy of Prof. Cui Gonghao, Nanjing University)

Planner's jobs were limited to the planning of standardized workers' housing. The scale of housing construction was tremendous, while the plans were often chosen from pattern books regulated by the state, rather than the creative work of planners. Residential microdistrict planning played a central role in planning education.

During this recovery period, planning faculties consisted mainly of those professionals being restored from the 1950s, or graduates from the limited elite planning programs in the 1950s. The curriculum, in general, following the mid-1950 model, featured the understanding that (physical) urban planning is "the continuation of [the] state socioeconomic plan" and emphasized top-down spatial resource distribution or redistribution in a planned economy.

This is not to say that the 1980s was a repetition of the 1950s. On the contrary, the seed for reform was nurtured in this slow-growth period. As China gradually opened to the outside world, Chinese planning education reconnected with the discourse in the developed world, often initially through overseas Chinese planning scholars.

In 1983, the Geographic department of Sun Yet-Sen University, together with the Urban Research and Planning Center of Hong Kong University held a "Symposium on China Urban Planning Education", attracting scholars and experts from major planning schools, such as Tsinghua University, Tongji University, Nanjing University, Wuhan Urban Construction College and South China University of Technology (Xu 1984).

The symposium raised the issue that the urban planning discipline in China should involve social science in addition to traditional architecture and civil engineering disciplines, combining so-called “soft science and hard science.” Responding to the call, “soft sciences” such as urban economics and urban sociology were slowly introduced into planning curricula. Urban studies entered the vision of planning educators.

In 1981, the first textbook available to the general public, *The Principles of Urban Planning (chengsh guihua yuanli)*, was published by Architecture Industry Publishing House of China, edited by professors from Tongji University, Chongqing Construction and Engineering College, and Wuhan Construction and Engineering College. This new textbook re-emphasized planning as a technical tool, concentrated on urban areas only, and a new chapter on “Implementation of urban planning” was added.

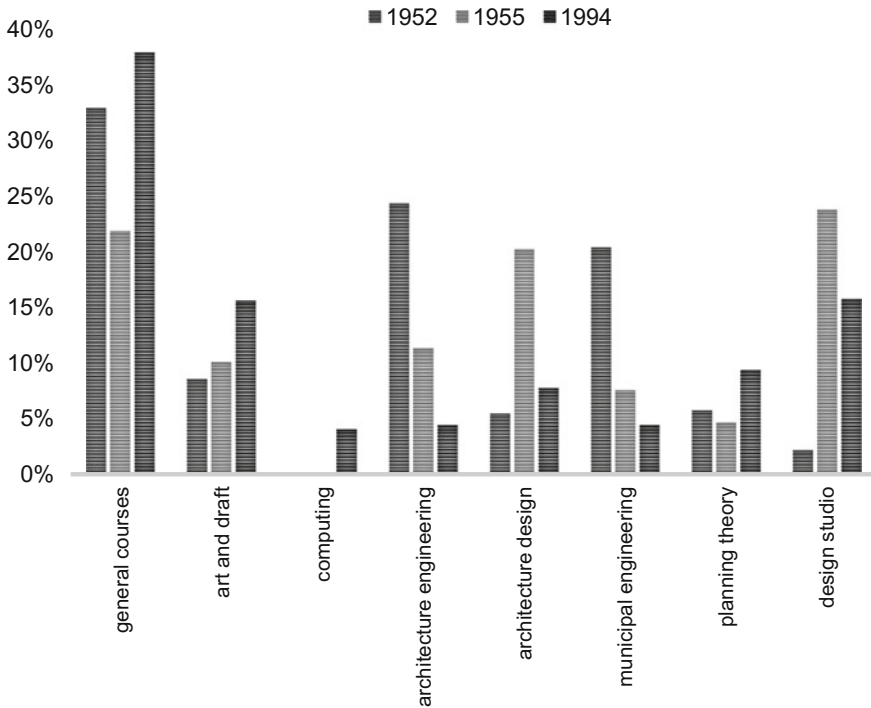
In the late 1980s, more textbooks were released, mostly edited by planning faculty at Tongji University, for example, *History of China’s Urban Construction, Regional Planning, Urban Road and Transportation, Gardening and Urban Green*, and *Urban Social Psychology, Urban Geography*, which preceded a more interdisciplinary education that would emerge in the 1990s.

## The Transformations in the 1990s

Two important events are worthy of mentioning in the 1990s that have profoundly changed the development of urban planning education in China. One is the Fourteenth Congress of the China Communist Party, which announced the goal of establishing a “socialist market economy”, stating the central leadership had determined to say farewell to a planned economy. A series of reforms were carried out, privatization of a large stock of public housing, as well as the opening of land and real estate markets are among those which have had considerable impacts on urban development and planning. State investment became less and less dominant in urban construction. The purpose of urban planning continued to be supporting the achievement of state-led socioeconomic goals, only now it was facing a completely different rationale of development.

On the other hand, toward the end of the 1990s, the Asian Financial Crisis diverted huge amounts of foreign investment into Chinese cities, with more stable market protected by strong state presence. This gave rise to another wave of rigorous economic growth and urbanization in China. However, compared to what happened in the 1980s, it was heavily capital-driven and concentrated more in large cities, bringing state pressures of greater regulatory control.

In terms of higher education, the state began to invest heavily in public institutions. For example, the “211” project—favorable state investment in 100 major universities to facilitate them entering the 21st century in a better position—has improved the fiscal situation in major universities. On the other hand, “industrialization” (*chan ye hua*) of education was encouraged, in the hope that the education



**Fig. 6** Proportional change on Tongji urban planning curriculum (drawn by author based on Tongji planning curriculum documents)

industry would become another driving force of economic growth. This gave birth to the boom in private educational institutions in the following decade.

The number of planning programs offered in universities increased rapidly, from 16 in 1989 to 60 in 2000. The population of planning graduate students had increased tenfold in a decade, reaching nearly one thousand per year. The call for inclusion of social sciences in planning education was largely taken into consideration (Fig. 6). Planning students began to learn more analytic skills and theories related to public management, as planning faced a transition from art and science into a form of public policy. From the curriculum of Tongji planning undergraduate program, hours spent on “general education,” which means higher mathematics, descriptive geometry, measurement and survey, as well as architectural and engineering courses had been greatly reduced. New courses, including urban sociology, urban economics, urban ecology, history of urban construction and historic preservation were added and more training in conducting social surveys was offered.

Entering the “information age”, planning students have become more and more familiar with computer tools. “Systematic engineering” (quantitative study and mathematical model application) became popular in the late 1980s. The



introduction and popularity of computer technology gradually changed methods of studio teaching in the 1990s. Computer drawing and rendering replaced hand drawing in the classroom. Making regulatory detailed planning (the Chinese equivalent of zoning), as one of the new inventions of the 1990s, entered the program. Along with more lectures on urban and planning theories, the proportion of design studios had been reduced from 1/4 of the total hours down to 1/6. Because there are considerably more courses offered to planning students, planning programs in many elite schools extended their undergraduate programs from four to five years.

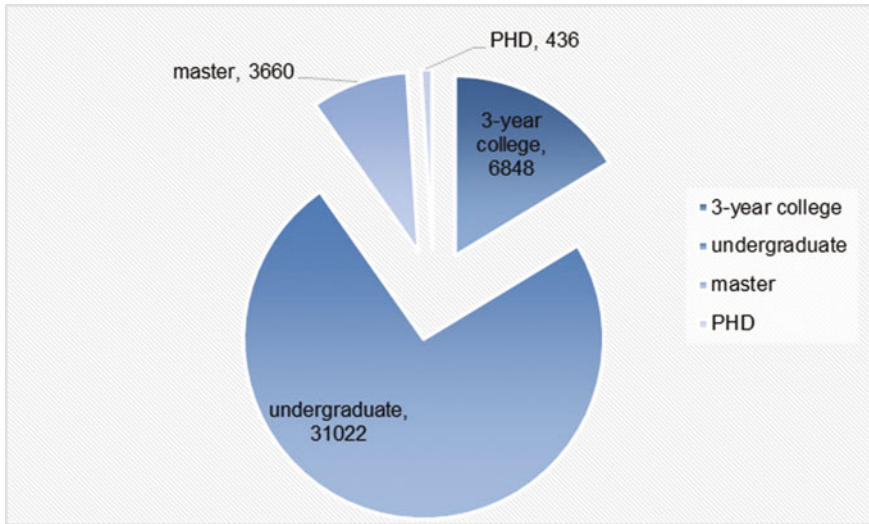
Institutionalization of planning education was pushed further by the state in the late 1990s. In 1998, being entrusted by the Ministry of Education, the Ministry of Construction—formerly the Ministry of Architecture Engineering, replacing SBUC as the central planning administration organ—established a National Urban Planning Higher Education Steering Committee and a National Urban Planning Accreditation Committee as platforms to oversee urban planning programs in China. The planning school accreditation system was introduced. Those students graduating from accredited planning programs have preference in applying for national registered urban planner, which was another new policy invented in the late 1990s.

Starting in the 1980s, Chinese students have had more opportunities to study overseas. In the 1990s, some overseas graduates began to return to China and became an important force for higher education reform. The international exchange of planning education has been transformed from a random, piecemeal approach to comprehensive and more in-depth activities. At the turn of the century (2001), the first World Planning Schools Congress (WPSC) with participants from North America, Europe, Asia and Australia, was successfully held at Tongji University, Shanghai. The event marked the start of a new phase when Chinese planning education connected better with the world.

## **The New-Century Boom**

Entering the 21st century, the number of Chinese planning programs and students has grown at an unprecedented speed accompanied with the growing importance of the urban economy in China. Rural migrants flood into urban areas, mostly into large cities in more developed regions, creating a demand for greater public service for their families. Unprecedented scales of urban construction, ever-increasing demand for more land, housing, infrastructure, public services, together with the real estate market boom, drove Chinese planners onto the stage. Being a planner in China is now a promising career, with reliable employment opportunities, respected social status, and middle-class income. The national entrance score for entering planning programs in higher education reaches record highs, year on year.

Over the last decade more than 100 new planning programs have been established countrywide. The number of undergraduate planning programs—to be

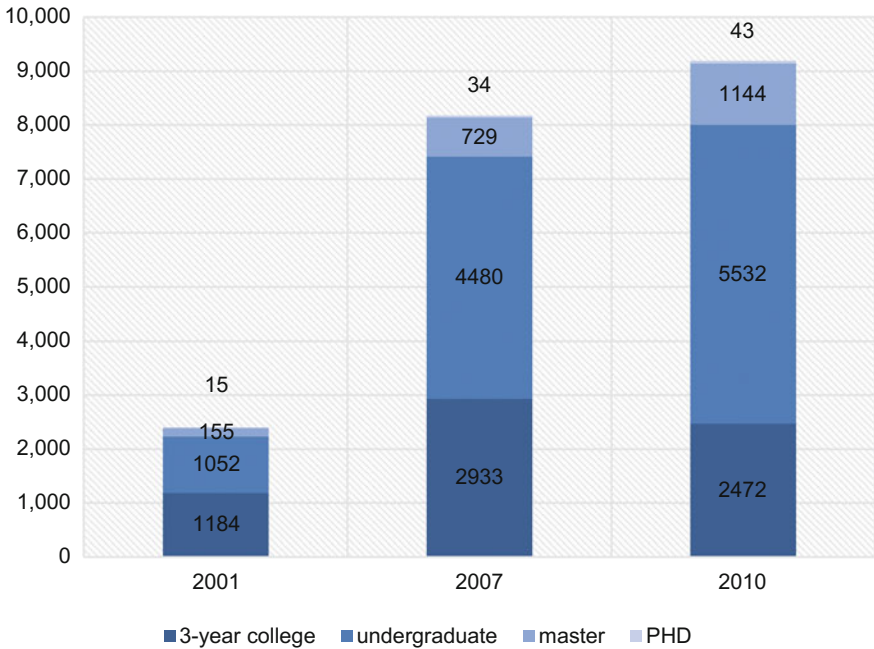


**Fig. 7** Qualifications of planning graduates (2001–2010) (Ministry of Education, Education Statistical Data Center)

specific, under the engineering discipline (*gong ke mu lu*) registered in the Ministry of Education—increased from 63 in 2001 to 175 in 2012. The population of planning students has well exceeded 30,000.<sup>6</sup> Planning education in China in the twenty-first century is still delivered mainly at undergraduate level and then postgraduate level. Some specializations at graduate level are often decided by the expert field of faculty advisors and not by curriculum requirements. In 2010, 74% of the planning student population was undergraduates. The growth of postgraduate programs is much slower. In 2010, only eight planning schools had doctoral programs and the number for master programs is a little more than 50 (Figs. 7 and 8).

The above statistics do not include planning programs in schools of geography registered under science discipline (*li ke mu lu*), named “resource, environment and urban-rural planning management” (*zi yuan huan jing yu cheng xiang gui hua guan li*). In 2012, there were 166 of these in geography schools, in addition to 175 planning programs under the engineering discipline. The planning programs offered by geography schools apply a more geographical and environmental science approach compared to engineering schools. However, under the pressure of better employment opportunities and the bias existing in the planning school accreditation policy as well as professional planner registration policy, more and more geography schools are beginning to pursue a physical planning approach. For example, in 2010, the Department of Urban and Regional Planning at Nanjing University, one

<sup>6</sup>All statistical data for planning education which has been mentioned in this paper since the year 2000 is provided by the National Accreditation Committee, supported by the Ministry of Housing and Construction and Ministry of Education.



**Fig. 8** Number of registered planning students in 2010 (Ministry of Education, Education Statistical Data Center)

of the most influential planning programs offered by geography schools since the mid-1970s, has left the School of Geography and joined the newly established Department of Architecture as School of Architecture and Urban Planning. It has changed its curriculum thoroughly toward technical engineering and physical design. This has also happened to some planning programs offered by the school of forestry, the school of agriculture, and the school of public management.

In the new century, Chinese planning education has been driven more by market forces and local demand, instead of top-town organization. In the planning programs under the engineering discipline, only 16% of them are directly under the supervision of the Ministry of Education. Fifty percent are regional public institutions while 15% are now private. Private institutions include Xi'an Jiaotong-Liverpool University, a newly established English medium China-UK joint venture. It established a Department of Urban Planning and Design in 2009 and students have a choice of spending up to two years of their degree program studying in Liverpool in the UK.

## Reflections from Historic Perspective

Urban planning in China is, in its nature, still a technical oriented discipline, with strong emphasis on aesthetic physical urban design and efficient municipal engineering, a feature to which both planning education and national institutional arrangements have contributed. Originating from civil engineering and architecture schools, Chinese planning education is highly applied, and practice-oriented. Design studios lie at the core of its curriculum, although social science subjects have been introduced into the curriculum since the late 1980s. Students spend most hours in front of their drafting tables, or nowadays, computers to be more precise. The ability of “making good plans,” i.e., envisioning a better urban future based on physical forms and regulations, is most valued. The majority of planning graduates work for planning and design firms. Another distinct feature of Chinese planning education is the close relationship between the education system, its governing organ in the state, i.e., Ministry of Housing and Construction, and the practitioners, which enable Chinese planning programs to cater to the needs of the profession.

Since its inception, Chinese planning education has been closely linked to planning practice and responded to state demands. Many planning faculty members are active practitioners in planning institutions or consultants for governments. Real-time practice is a solid part of Chinese planning training, with real clients and real urban problems to solve. Chinese urban planning education at undergraduate level is also strongly practice-oriented. Students are effectively trained in four or five years to be proficient practitioners. The graduate programs on the other hand are mostly thesis-based academic training, except for so-called “master of engineering in planning” (*gongcheng shuoshi*) and newly approved professional master degrees (*zhuan ye shuoshi*). The state administration offers a strong, sometimes rigid, institutional framework for planning education, which further contributes to this nature of practice orientation. The establishment, development, reinstatement, retreatment, diversifying and booming of Chinese planning education all carries a clear top-down feature, as an integral part of state strategies and national plans. The effective technical training at school enables planning graduates to have good employment prospects. Clearly there exists both advantages and disadvantages from this fact.

After continuous growth in the recent decade, the population of planning practitioners in China has exceeded well over one hundred thousand. The annual national planning conference of China, the most popular event attended by both Chinese planning academia and practitioners, welcomes record-high participation each year. In 2013, more than 6000 delegates are said to have attended. The close “kinship” among Chinese planning schools, their relatively homogeneous—sometimes in-bred—structure as well as active industry associations, help to form an close-knit society in this fast growing industry. The divide between the academic and practical world, often a sound phenomenon in the other parts of the world, is not that obvious. However, the integrated nature of Chinese planning profession also brings self-protection of industrial interest and self-possession of its current

state, which has held back a more diversified development of the field. Although the involvement of multiple disciplines has been in action for more than three decades, the preference for physical design and engineering is still overwhelming. Recently there have been planning programs offered by schools of public administration, forestry, or schools of education and pedagogy. However their curriculum seems influenced by the engineering perspective but not vice versa. The strong institutional nature of the profession—state sponsored and bureaucratically led—is the other important factor contributing to the inertia of the profession. Educational institutions consequently follow and invest in research that further refines the technical instruments demanded by the state and its bureaucratic structures.

The proliferation of China's planning education and planning profession has been achieved through the efforts of generations and opportunities provided by the state and market. With fifty percent of the Chinese population now residing in urban areas, and many Chinese cities reaching their growth limits after three decades of vigorous expansion and development, Chinese planners will soon face a very different job market as well as social demands. The traditional physical planning approach centered on new development and urban expansion could be challenged. Urban planning has been widely accepted as an important instrument of public administration, however its training in most Chinese planning education institutions is still concentrated on plan-making rather than policy-making. Without shifts in values, attitudes, skills and knowledge, the legitimacy of physical planning in China could face fundamental challenges in a rising civil society with an empowered middle class. The fact that urban planning has become one of the most popular targets of public critiques in mass media in recent years poses a stark warning for the profession. For planning educators, this poses the questions: what kind of planning education should we offer in China's new urban age? What kind of research and practice should we foster for the future? And what can we learn from the rest of the world?

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# Chapter 7

## Tertiary Education and Postwar Reconstruction: The First Australian Planning Programs

Robert Freestone, Christine Garnaut and David Nichols

**Abstract** While a robust voluntary town planning movement emerged in Australia before World War I, the long-standing goal of university-provided professional education did not become a reality until after World War II. This chapter considers the genesis of the first three tertiary programs in Australia between 1949 and 1951 in the wake of national moves toward postwar reconstruction. These were at the South Australian School of Mines and Industries (under Gavin Walkley), University of Sydney (under Denis Winston), and University of Melbourne (under Niel Abercrombie). The development of these first qualifications each has its own complex history. The chapter highlights the key factors driving establishment of the programs in each state; the main actors involved; the intellectual and professional connections to architectural education; the importance of the British connection in terms of aspirations, early syllabuses, textbooks and lecturers; and the overall significance of this moment in the development of planning education in Australia.

**Keywords** Postwar reconstruction · Professional practice · Gavin Walkley · Denis Winston · Niel Abercrombie · Patrick Abercrombie

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## Introduction

The long-standing goal of planning advocates to provide a professional education at tertiary level was realized in Australia after World War II. The achievement of this ambition was the culmination of several disparate forces. A robust voluntary town planning movement emerging prior to World War I had long toiled for university-level training but it was the political climate favorable to strategic planning after World War II that allowed this to be realized. This chapter examines the foundation of planning education in Australia by investigating the genesis of the country's first three tertiary programs—at the South Australian School of Mines and Industries (1949), at the University of Sydney (1949) and at the University of Melbourne (1950). The inauguration of these qualifications (all postgraduate diplomas) and early moves to subsequently upgrade them each has its own discrete, complex, and imperfectly documented history. The chapter provides a synoptic account of the three largely parallel stories. It introduces the broader historical prelude to professional planning education in Australia before presenting an overview of the triggering circumstances, key actors, evidence of international connections and legacies associated with each institution. The concluding section draws out common themes in the three histories.

## A Prelude to Professional Education

In Australia, town planning was not a widely understood or supported phenomenon through the first half of the twentieth century, although it was brought into the public spotlight through initiatives like the 1911 international competition to design a Federal capital city. Professionals self-identifying as planners were mainly architects, surveyors and engineers with an interest in broader questions about the organization, aesthetics and management of the built environment. Few had formal technical training in planning. By the early 1920s Australia could boast only four corporate members of the British Town Planning Institute (TPI), the peak imperial professional qualification. Nevertheless, the promotion of formal training alongside broader community education was a lynchpin of early planning propaganda. A university professorship was a long-standing ambition of planning advocates in Sydney, for example, being inscribed in the charter of Australia's first town planning association in October 1913 (Freestone 2009b).

From the 1910s into the 1940s public lectures were often associated with planning events like the Garden Cities and Town Planning Association-sponsored town planning tour of Australasia by Charles Reade and William Davidge in 1914, and exhibitions on postwar reconstruction in the 1940s (Freestone 2010). These catered for diverse audiences and were no substitute for formal professional training. In the 1920s and 1930s town planning lectures were added to a handful of tertiary courses, mostly within architecture degrees. At the University of



Queensland, for example, architect Robert Cummings incorporated basic instruction into the part-time architecture course from the late 1930s (Sinnamon 2007). This model was incrementally emulated by universities and technical colleges in other states but clearly stopped short of delivering an actual planning qualification.

The most systematic and sustained initiative in the hybrid blend of popular and quasi-professional education prevailing through the interwar period was the Vernon Memorial Lectures series in Town Planning at the University of Sydney. Honoring a former New South Wales Government Architect, these lectures arose from a public subscription in 1914 organized by planning reformer George Taylor. The University's Extension (adult education) Board assumed the organizational task and John Sulman, the leading Australian planning advocate of his generation, delivered the inaugural series in 1919. The lectures were assembled into the first truly substantive local text on the subject (Sulman 1921). Sulman presented his lectures again in 1921, 1923 and 1926 but was a reluctant starter, writing to the University Registrar in 1929 "that the Vernon Course is basic, and any further development should be by an additional course or courses." This was a polite dig at the University's inaction on a chair in town planning (Freestone 2007). Nevertheless the Vernon series continued, presented by town planner David Davidson in 1928 and architect town planner Alfred John Brown in 1931, 1933, 1935 and 1937, and attracting an eclectic paying audience of all ages and callings.

Davidson, a student in the inaugural 1919 series, employed Sulman's basic framework, but introduced treatment of "philosophy and ethics" plus more emphasis on survey research at various geographic scales in keeping with the North American turn to the "city functional" (Ward 2002). Midway through the 1928 series a revised program of two lectures per evening was instituted to enable him to take up a new post of Town Planning Commissioner of Western Australia. In 1931 Davidson reprised his Sydney lectures in the Faculty of Engineering at the University of Western Australia. His successor, Brown, was able to draw upon the experience of working with Louis de Soissons at Welwyn Garden City in the early 1920s. Several senior practitioners including the City Engineer, the New South Wales Surveyor General, and the Chief Engineer of the New South Wales Department of Main Roads, attended his lectures. Brown later collaborated with the Chief Engineer, Howard Sherrard, to produce a major planning textbook, *Town and Country Planning*, with a foreword from Patrick Abercrombie (Harrison 1977).

By the late 1930s the case for planning was being framed by a new generation of advocates keenly attuned to its vital role in enhancing the productivity and livability of cities and regions through governmental coordination. After the worst effects of the Great Depression had subsided, a strong nexus was forged between planning and economic development. This was exemplified in South Australia under the leadership of Premier Thomas Playford who drove the state's expansion of secondary industry leading to increased demands for new infrastructure and affordable housing. South Australia's inaugural Town Planning and Development Act (1920) had been repealed in 1929 and replaced with an emasculated Town Planning Act, which controlled only land subdivision; hence the development push was proceeding devoid of any integrative planning legislation or direction. Architect Gavin

Walkley recalled that by the 1940s “the principal difficulty ... was that South Australia had virtually no planning legislation ... We had to work in a vacuum. ... We had no guidance from the State Government; we were working on an ad hoc basis, putting houses here, there, and everywhere, without an overall plan to guide us” (quoted in Marsden 1986, 144–5). This situation was replicated in other states.

By the mid-1940s there was general political agreement that the lessons of careful planning that had gone into the successful war effort had to be adapted to a raft of looming peacetime challenges as highlighted within a prevailing ethos of postwar reconstruction (Macintyre 2015). The Commonwealth Government recognized the place of planning within a matrix of national needs. A landmark Commonwealth Housing Commission report published in 1944 not only provided a manifesto for state-assisted housing provision and progressive new design standards but also enshrined town planning as the means of assuring genuine community development over uncoordinated sprawl of new dwellings (Troy 2012). It went as far as recommending a national planning research and training institute at the Australian National University in Canberra but that proposal was not realized. While the Commonwealth Government was keen to take the lead in planning matters generally, state governments preferred to go their own way. Consequently, a fragmented national approach prevailed, as in many other areas of public policy.

The increasing demand for qualified planners was certainly evident to most state governments. The drive to enact planning legislation in every state stimulated by the Housing Commission’s recommendations became a major trigger for new educational initiatives. Public lectures canvassing planning values and ideas were uplifting and instructive. In Hobart in 1945, for example, the new Town and Country Planning Commissioner Ronald A. McInnis worked with an advisory committee to deliver free night classes for anyone interested (McInnis and Advisory Committee on Planning Qualifications 1945; Petrow 1997). In Adelaide in 1948, architect Andrew Benko and engineer Rex Lloyd presented a series of 24 lectures on town planning to a Workers’ Educational Association class at the University of Adelaide (Benko and Lloyd 1949).

But lectures like these did not constitute a professional education. For aspiring Australian planners there were limited pathways to that end through the 1930s and into the mid-1940s. Dedicated individuals could study by correspondence for the TPI examinations, a demanding and lonely endeavor, but very few chose actually to go abroad to undertake their training. Walter Bunning, a key figure in the Sydney scene, was one, studying planning at the Regent Street Polytechnic (now University of Westminster) in 1937–39 (Spearritt 1993). After the war Jaqueline Tyrwhitt directed a popular correspondence course available from 1946 at the School of Planning and Research for Regional Development (SPRRD) in London (Shoshkes 2013; see Chap. 5). SPRRD was the teaching arm of the Association for Planning and Regional Reconstruction.

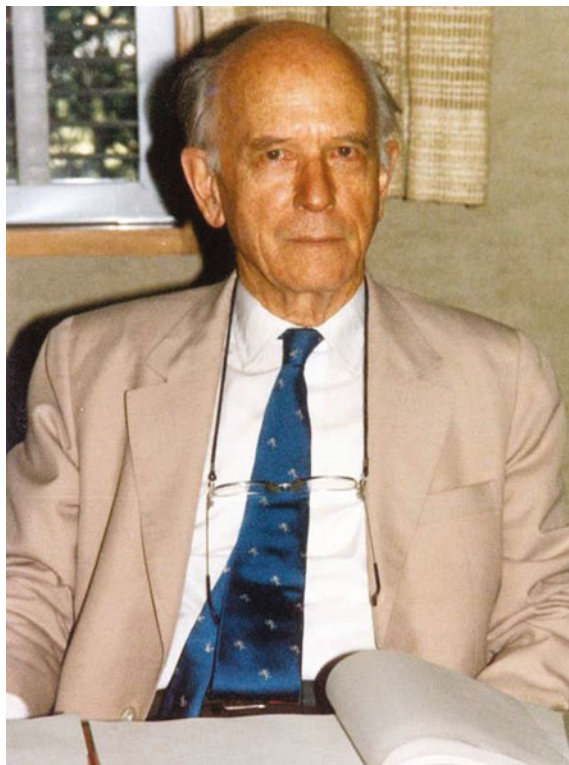
State-based town planning institutes were established nationally from the 1930s and injected a more professional approach departing from the populism of the community-based town planning associations. All were active in seeking to educate

their members to greater proficiency and in accelerating the push for tertiary education in planning. When the institutes federated in 1951 to create what is now the Planning Institute of Australia (PIA), planning education was finally enshrined as a national imperative. The period immediately leading up to this breakthrough was critical. Leading professionals, largely independent of each other but all with strong international connections, mobilized in three states to establish professionally based instruction. The individuals concerned were informed primarily by their personal knowledge of planning and by information about the examination curriculum of the TPI. They were not part of an Australian network of architectural and planning professionals like those in Britain and the United States, making independent connections with contributors to planning education overseas. We now look at the outcomes chronologically by the starting date of each program.

## South Australian School of Mines and Industries

The South Australian School of Mines and Industries (School of Mines) in Adelaide, South Australia, has the distinction of starting Australia's first tertiary course in planning in 1949. Against the pervasive backdrop of disquiet about uncoordinated postwar development, the particular inadequacy of South Australia's planning legislation was a major concern for the architectural and associated professions and increasingly for the general public (Garnaut and Round 2009). One consequence was the decision of the Royal Australian Institute of Architects (RAIA) in 1947 to charge two of its members, Dean Berry and Jack Cheesman, with the task of initiating a professional town planning body. Others, including Gavin Walkley (Fig. 1) who would play a key role in establishing planning education in the state, were made responsible for developing a constitution (Jones 2012; Walkley 1975). The Town Planning Institute of South Australia (TPISA) was inaugurated in April 1948 with Adelaide City Council Town Clerk William Veale as foundation president. An engineer and surveyor, Veale had been advocating for town planning since the early 1920s.

"The [TPISA's] principal aim was to induce a reluctant government, which did not know the meaning of Town Planning, to introduce suitable Planning legislation" (Walkley 1975, p. 31). The Institute seized every opportunity to promote its cause. Not surprisingly, it supported a visit to Adelaide in November 1948 by eminent British planner Sir Patrick Abercrombie as part of his Australia-wide tour (Amati and Freestone 2009). By then Walkley was studying planning through the correspondence course offered at SPRRD, believing that this professional qualification would credential him to set up a program in Adelaide. However, "his impatience got the better of him" and he elected to try to initiate a program while he was still studying. During 1948 he commenced informal discussions with the School of Mines where he lectured in the History of Architecture (Walkley 1948, p. 94). Aware of Abercrombie's background and his status as "a potential source of information and wisdom" about planning education, Walkley arranged to meet with



**Fig. 1** Gavin Walkley, 1987 (Reproduced with permission of the Estate of Gavin Walkley)

him during his Adelaide visit. Walkley explained “in general terms what he was trying to do ... [and] Abercrombie agreed that it would be necessary to start in a modest way and to let the course grow with available resources” (Walkley 1948, p. 94). The Adelaide press reported that Abercrombie publicly endorsed the introduction of a specialist tertiary program in town planning on the basis that “the most satisfactory way to create a townplanner was to take an architect, engineer, or surveyor and indoctrinate him with the special knowledge he should have for the task” (Anon 1948b).

Through Walkley’s studies, and Berry and Cheesman’s enquiries, the TPISA was familiar with the TPI’s external examination syllabus (Anon 1951). Spurred on by Abercrombie’s assertion, Walkley was asked by the Institute Council (of which he was a member) to enquire formally at the School of Mines about initiating a program in planning. The School of Mines was established in 1888 and had introduced a Diploma in Architecture in 1906. Architect Louis Laybourne Smith, Head of the Architecture Department, was a keen supporter of the introduction of town planning legislation to ensure that “Adelaide developed on satisfactory lines” during the postwar building boom (Walkley 1975, p. 33). He was already delivering lectures on elementary town planning to senior architecture students and agreed to

the proposition of a postgraduate planning program being conducted within the Department.

The TPISA was quick to act. It reached an agreement with the School of Mines whereby the School would provide administrative assistance and lecture spaces in return for the TPISA preparing the program, organizing lecturers and providing funds to cover any short-fall between student fees and fees paid to the lecturers (Walkley 1975, p. 32). The program would be offered part-time over two years to qualified architects, engineers and surveyors. Walkley became responsible for the curriculum. Following the TPI precedent, the initial syllabus comprised six subjects covering planning practice, law, history, engineering, surveying and “architecture and amenities.” “Naturally”, Walkley recalled in private correspondence in 1980, “we tried to apply the principles in these English-oriented subject syllabuses to Australian conditions.”

The local daily newspaper, *Advertiser*, pronounced the new town planning program as an “innovation” (Anon 1948a). The first cohort—officially recorded as fifteen students—commenced on 14 February 1949 (South Australian School of Mines and Industries 1949). Students attended weekly classes and sat for annual examinations. Lectures were held in the evenings three nights per week. The lecturers included Walkley and other local practitioners, none of whom was trained in town planning, all appointed by the TPISA and employed part-time (Walkley 1975, p. 33). Given the newness of instruction at this level, they developed their own knowledge by attending one another’s lectures. Students received typed lecture notes with a covering sheet setting out the subject focus, topics covered and the text and reference books. In the main, the reading lists focused on British authors and content. The earliest sets of notes contained the rider: “It is realised that most of the ... books will be difficult to obtain but it is hoped that the Public Library will be able to meet this need very shortly (South Australian School of Mines and Industries 1949).”

In the second half of 1949 Walkley undertook a three-month, British Council funded study tour of England. He combined an investigation of the effects of recent planning legislation and trips to new town developments with enquiries into planning education. He visited “a few of the more prestigious Planning Schools throughout the country”, one of which was the School of Civic Design at the University of Liverpool where he met with key educators including Abercrombie, again, and William Holford. Walkley also took the opportunity to gain first-hand knowledge of places like Saltaire, Letchworth and Welwyn to which he referred in his History of Planning lectures. In a 1981 interview he reflected that he “learned quite a lot [from his meetings and observations] and managed to bring this back to the State and it helped a bit in the teaching of my course.”

In London, Walkley met Eric Rowse who had replaced Tyrwhitt as head of SPRRD, to review the progress of his own studies; he also attended several lectures. During a meeting with TPI Secretary Alf Potter, Walkley gained useful “intelligence” about the future training of planners (Walkley 1948). Potter advised him that the Institute was changing not only the external examination syllabus but also the criteria on which schools were to be “recognized”. Consequently, on his return to

Adelaide, Walkley adjusted the School of Mines planning program to include subjects in “social and economic organization” and “applied geology and economic geography”, all of which were incorporated in the revised TPI syllabus.

By the end of 1952, when the first four students graduated, the School of Mines program was viable without financial support from the TPSIA (South Australian School of Mines and Industries 1954; Walkley 1975). Walkley had restructured the program into a three-year part-time degree to allow students more time to cover the expanded curriculum. The first cohort to undertake the revised program commenced in 1953. The primary target group remained architects, engineers and surveyors in the public or private sector “who wished to look beyond the normal sphere of their own professions to the broader one of town and country development” (University of South Australia 1955, p. 14). The School of Mines is now the University of South Australia which offers Bachelor and Master programs in planning (which was recently realigned with architecture after some years apart).

## University of Sydney

The prospect of legislative reform to address postwar planning challenges was an equally strong driver in the push for academic planning education in Sydney. Just like Adelaide, there is an important pre-history to acknowledge and one also with links to architectural education. Formal training in architecture was originally under the auspices of the technical college system. The appointment of British expatriate Leslie Wilkinson to a foundation chair in architecture at the University of Sydney in 1918 marked a major step forward. The new four-year program included philosophy, theory and practice of design, aesthetics, drawing, and architectural history (Lucas 1990). A town planning subject was included in the curriculum when Sydney architect Keith Harris was appointed the principal instructor in town planning in 1921. In 1927 the subject was taught alternatively with History of Painting/Sculpture in the final years.

Until the 1930s the Vernon public lecture series on town planning, referred to earlier, was run independently by the Extension program but from 1929 the Architecture Faculty (which had broken away from Engineering) was consulted on the choice of Vernon lecturer. In 1938 a review was undertaken of the Vernon program. Minutes of a meeting of the Faculty of Architecture record this took into account the program’s increasing breadth, the need to consider specialist lectures, the “marked increase in interest in Town Planning in recent years”, and the likelihood of planning legislation being introduced to New South Wales in the near future. Wilkinson and Harris recommended that the current program be discontinued and that resources be redirected to establishing a new professional program in which the content would be derived from an integration of the Vernon lectures with planning instruction in the architectural degree. A newly combined annual series of sixteen lectures covering topics such as history, theory, practice, law, finance, basic surveying and engineering duly ran in 1939 and 1940.

The economies of wartime precluded any expansion of academic programs but by 1945 the University of Sydney was confronting increased enrolments exacerbated by the return of students who had deferred for war service. The Architecture Faculty was preoccupied by the need to provide accommodation, equipment and teaching staff for architecture students rather than ramping up instruction in planning. But the external environment was making a compelling case for action.

After decades of campaigning by town planning supporters, in July 1945 the New South Wales state government passed legislation which established a legal regime for town planning. The government recognized immediately that expansion in the number of qualified town planners was essential for this reform to be implemented satisfactorily. The Local Government (Town and Country Planning) Amendment Act established a small planning bureaucracy to oversee preparation of statutory local planning schemes, a new body to prepare an outline plan for the Sydney metropolitan area, and a Ministerial advisory body, the Town and Country Planning Advisory Committee (TACPAC). The new legislation included the requirement that councils employ only professional planning experts holding certificates of qualification prescribed under a new Ordinance (Cahill 1944). An examinations committee, initially under the umbrella of TACPAC, would issue the certificates.

A TACPAC sub-committee chaired by architect William Laurie began investigating educational requirements. It canvassed several options including commencing new qualifications at the University of Sydney, the proposed new University of Technology, or Sydney Technical College; instituting a correspondence degree; or appointing an expert from Britain or the United States to oversee a special five-year training program. While the sub-committee's deliberations progressed, the more urgent need was to create an immediate cadre of trained planners. The preferred pathway was through intensive short courses leading to the certificate examinations. Three intensive courses were duly organized in January 1946, January 1947 and February 1947, the purpose of which, as described by state government bureaucrat Stan Haviland in a letter to the Registrar of, University of Sydney in 1946, was "to fill the gap pending the establishment of a postgraduate course [i.e., program] where town planning can be fully studied". The first of these short courses resurrected the series of lectures given in the 1930s by Alfred Brown and was run by the University Extension Board. The two series in 1947 were organized directly by TACPAC. The January series was an intensive two-week residential course for regional students held at a Workers' Educational Association facility on Sydney's northern beaches while the February series was a repeat of the 1946 format and held at University Chambers in the city. Each series comprised 24 hours of lectures and 30 hours in the studio to cover the major principles of town and country planning. By March 1947, 249 students had earned their Ordinance 4 certificates. This fast-tracked certificated route remained a qualifications pathway in New South Wales into the 1970s but one of growing concern for the professional standing of the planning discipline (Burdess 1984).

Meanwhile, machinations toward establishing a formal postgraduate program continued. As a prestigious institution with an established architecture program, the

University of Sydney was the preferred host. Wilkinson was now keen, though nearing retirement, and Laurie, one of the first crop of architecture graduates in the early 1920s, favored the University, as did TACPAC chairman Walter Bunning. However, the University was lukewarm because of enrolment pressures, other disciplinary demands for new chairs, resource limitations, and the concern that external financial assistance, while desirable, might infringe intellectual freedom. Delays in establishing the new University of Technology plus its singular focus on technical training detracted from its appeal. By contrast, Sydney University could readily offer complementary instruction in sociology, economics and geography (Freestone 2009a).

A high-level meeting instigated by TACPAC in February 1947 with senior officials from the state government, education and university sectors successfully mapped out a desired two-year qualifications framework. Minutes of the meeting of the University of Sydney Senate show how, in May 1947, a new Chair of Town Planning within the Faculty of Architecture was approved for a five-year term, extendable conditional upon a £3000 grant from the NSW Department of Local Government. With input from a special London-based committee including Patrick Abercrombie, Denis Winston, Chief Town Planner and Borough Architect in Southampton, was appointed in June 1948 over twenty applicants. Winston (Fig. 2) was an architecture and civic design graduate from the University of Liverpool, which was to supply a procession of leading planning teachers and professionals in Australia well into the 1970s (Colman 1993). He arrived in Sydney on New Year's Day 1949 and submitted his proposal for a Diploma in Town and Country Planning on 10 March. Classes commenced in the last week of March 1949, just a few weeks after the initiation of the planning program in Adelaide. Nearly forty students were enrolled (Anon 1949).

The inaugural curriculum was structured around nine courses, each comprising twenty-four one-hour lectures supplemented by practical work, reports and field excursions, and organized over two years of part-time evening study. The chosen topics were "Theory and Practice of Town and Country Planning", "History of Town and Country Planning", "Public Administration and Town Planning Law", "Outlines of Social and Economic Organization", and "Landscape Architecture and Horticulture". Faculty meeting minutes describe how there was complementary instruction in elementary geography, architecture, surveying and valuation, and civil engineering, all "as related to Planning", "Architecture in Relation to Planning" was the last vestige of the Vernon Lectures. As was the case in Adelaide, enthusiastic part-time professionals assumed the major responsibility for delivering this quickly assembled curriculum fashioned from first principles by Winston, who explained in a letter to a British colleague in 1949: "As you can imagine, no one in Sydney, least of all at the University, had any idea what a Town Planning Course would or should involve and I have had to start from scratch, as if it were Liverpool in 1914".

By 1951, Winston, as Head of the Department of Town and Country Planning, was concerned that the amount of time allowed for practical work was inadequate and proposed an extended three-year qualification to "[bring] it into line, and the standard would be raised to compare with, other Universities overseas", as





**Fig. 2** Australia's first professor of planning: Denis Winston, c1955 (Reproduced with permission of the University of Sydney Archives)

described in the minutes of a faculty meeting. On a visit to Adelaide that year, Winston commented that he was “impressed by the increased curriculum” set in train by Walkley (Anon 1951). The Sydney curriculum was similarly evolving to include greater social science content. Just before he sailed for Australia, Winston had made a special study of British town planning degrees which were undergoing considerable change at the time. Influenced by the ideas of Frederick Adams at MIT in particular, the new curricula included an increased emphasis on geography, economics and sociology (Batey 2012). With this broadening and lengthening of the degree, the university calendar for the year 1953 records that the new Department of Town and Country Planning had ensured that its graduates satisfied the requirements for the practice examinations of the Department of Local Government, were recognized by the new Planning Institute (with Winston elected first president), and qualified for exemption from the final TPI examinations. This meant that by 1955 only the addition of an individual research component was needed to upgrade the existing Diploma qualification to a Masters degree. A Master of Urban and Regional Planning remains in place today (still offered within a Faculty of Architecture, Design and Planning).

## University of Melbourne

As in Adelaide and Sydney, the town planning movement in Melbourne first came to the fore just prior to World War I. The surgeon and ophthalmologist James Barrett, closely connected to the University of Melbourne since the 1880s, helped commission a town planning tour by senior British planner Thomas Mawson (Freestone 1989). When this was canceled, Barrett became Vice-Patron of its replacement, the Reade-Davidge lecture tour, commencing in August 1914. Although Barrett was in no measure a planner, his strong influence can be felt since that time and even beyond his death in April 1945. An advocate for planning, public health and associated amenities such as playgrounds, he combined voluntary positions such as the presidency of the Victorian Town Planning Association and Chairmanship of the National Parks Committee alongside professional appointments notably the Chancellorship of the University of Melbourne in 1935–1939 (May and Reidy 2009).

The University's School of Architecture began to emerge formally as a discrete unit from the Faculty of Engineering in 1911. Engineer and Faculty Professor Henry Payne announced in July 1923 that engineering and architectural students were to be offered a course in town planning (Anon 1923). When the School of Architecture became a standalone entity in 1931, town planning remained as a component of the wider architectural curriculum. A decade later, the University was ready to contemplate a more substantive presence. In 1943 at the opening of an exhibition on town and country planning the Vice-Chancellor John Medley invited the private endowment of a new planning department, promising any benefactor "an easy passport to immortality" (Anon 1943). However the offer was not taken up.

The approach to the teaching of planning at the University of Melbourne would be shaped by several key local and global factors. Planning practice was strongly influenced by the work of the Melbourne Metropolitan Town Planning Commission (MMTPC) in the 1920s, the most exhaustive prewar planning inquiry undertaken for any Australian city (Freestone and Grubb 1998). Although the MMTPC's comprehensive 1929 Report was not implemented, it loomed large in the imaginations of planning advocates for decades. John Gawler, a lecturer in architecture at the University from 1920, claimed to have regarded the MMTPC's report "as a text book on town planning" which he "used ... at the University, and recommended ... to all my students" (Gawler 1963, p. 11). As Chairman of Victoria's Town and Country Planning Board working alongside other appointees such as Fred Cook and Arthur Kemsley (both former appointees of the MMTPC), Gawler was instrumental in advancing and formalizing the teaching of planning at the University. Passage of new state planning legislation in 1944 in the wake of the final report of the Commonwealth Housing Commission (of which Gawler was also a member) was another driver.

John Gawler retired from the University in 1946, in large part to facilitate the appointment the following year of the first Chair of Architecture, Brian Lewis.

Lewis was an Australian recruited from the School of Architecture at the University of Liverpool. He supported planning education and became president of the Victorian Town and Country Planning Association but was always worried that including planning in the curriculum might “drain resources away from Architecture” (McLoughlin 1988, p. 16). Lewis had close professional and personal connections to Britain. In 1948 his wife, Hilary (née Archer) had heralded the coming visit of Patrick Abercrombie to Melbourne in glowing terms; she had actually worked with Abercrombie on the County of London plan in 1943 (Lewis 1948). In a public lecture at the University in October 1948, Abercrombie highlighted the utility of having a town planning department undertake research on planning standards (Abercrombie 1948). The influence of the British TPI curriculum was unavoidable (Wilks 1998).

In 1950 the Melbourne press announced that the School of Architecture would offer a postgraduate program in Town and Regional Planning through its Extension Committee (Anon 1950a). Architect Phillip Pearce, a partner in the leading architectural practice Bates Smart, was appointed as a temporary lecturer in town planning. Lewis began the new decade with a demonstration of the potential for successful synergies between town planners and architects in two student projects: one for the burgeoning beachside suburb of Beaumaris, initiated at the request of its Parents and Citizens’ Association, and another for the working class suburb of Prahran, where students experimented with a consultative approach and residents “would tell the planners what they wanted” (Anon 1950b).

The first planning curriculum in Melbourne was similar to the Adelaide and Sydney precedents. The pent-up demand to acquire formal planning qualifications saw an initial enrolment rush. Gawler (1963, p. 28) wrote in his memoirs that the new two-year “post graduate part time course ... was open to architects, engineers and surveyors and attracted students at once”. In the first graduation year, 1952, a total of 21 students received diplomas.

Lewis appointed John Bayly, a young architecture graduate from Melbourne, as the first full-time planning lecturer. But the teaching program still relied heavily on practitioners. In an interview in 2014, Bayly remembers a team of nearly twenty part-timers: “the University didn’t pay much for occasional lecturers and we got some very keen senior people from around various branches of the Public Service and private practice in Melbourne”. One of those part-time lecturers from 1950–53 was Frank Heath, Melbourne’s best known planning advocate of this period and a successful architect. Heath had reportedly met with Jaqueline Tyrwhitt in London in 1947 and drew from some of her correspondence course town planning booklets for lecture material. Heath’s specialty was regional planning learned primarily on the job through a series of town extension schemes in rural Victoria (Darlan-Smith and Nichols 2010). Another lecturer who worked in the school later in the decade, Josephine Johnston, found herself in the potentially awkward position of teaching professionals very senior to her, men with few formal qualifications but whose rise in the planning ranks required their “skilling up” in the University (Whitzman et al. 2009). The most senior appointment engineered by Brian Lewis was that of Nathaniel (Niel) Abercrombie as a Senior Lecturer to oversee the diploma degree.

Niel was Sir Patrick's son, and his relationship with the Lewises went back to Brian's years studying at the University of Liverpool. Niel had immigrated to Australia after the war and was working as a planner in New South Wales in the late 1940s (Anon 1950c). Bayly recalled in his 2014 interview that Abercrombie "was a pretty good name to bring in". The younger Abercrombie was a competent and good-natured administrator who saw value in-keeping up-to-date with new developments, for example via his "study tour" to Britain in 1952 (Anon 1952), however he was no innovator. While he could be relied upon to comment on the planning of Melbourne (Hutton 1952), he did not initiate hands-on student engagement projects such as Lewis' early 1950s experiments and nor did he research, publish or preside over any far-ranging studies or surveys. He would nonetheless have taken some satisfaction, before leaving for Tasmania to succeed Ronald McInnis as Town and Country Planning Commissioner in 1956, from Danish housing expert and lawyer Eva Siesby publically declaring that she was "impressed with the postgraduate training available to town planners" in Melbourne (Anon 1954, p. 14).

Abercrombie was succeeded by Frederick W. Ledger, who was to loom large in the teaching of planning at Melbourne and the development of Bachelor and Master programs (Fig. 3). Ledger was recruited from the University of Manchester in 1956



**Fig. 3** Frederick Ledger (*far right*) with Brian Lewis (*center*) and University of Melbourne School of Architecture tutors, 1956 (*Source* National Archives Australia A12111, 1/1956/29/6)

but not appointed to the first Chair of Regional and Town Planning until 1970 (Poynter and Rasmussen 1996). The University of Melbourne still offers a Master of Urban Planning (within its Faculty of Architecture, Building and Planning).

## Conclusion

Relative to Britain and the United States, planning education came late to Australia—four decades after establishment of the civic design degree at the University of Liverpool and twenty years after the first city planning program at Harvard University (Davoudi and Pendlebury 2010). These pioneering ventures in the English-speaking world had their own triggers; in Australia the major spur was post-World War II reconstruction ideals. The drive toward legislation to enable local, metropolitan and state planning strategies ensured a subsequent demand for qualified planners in both strategic and regulatory roles. All the decisive early efforts in Australia were state-focused and independent of each other.

The first three professional programs introduced in this chapter led to post-graduate diplomas, meaning that almost all the first generation of postwar planners also had professional affiliations to other disciplines. The strongest intellectual and logistical connection was to architecture and architectural education. In 1949 a national meeting of heads of schools of architecture resolved that town planning be included in all architecture degrees and that professional study should be post-graduate and associated with architecture faculties (Blythe 1997). While this proved the early model, as instruction was progressively widened into social science content, the platform was being laid for planning to be offered outside of built environment settings (from the 1970s). The significance of the British connection in terms of early aspirations, syllabuses, textbooks and lecturers is also evident into the 1970s but this would slowly leaven through time.

The postwar response to the need for an academic-based professional education in planning was not uniform nationally. Several years would elapse before more diploma programs were started in other states: in Tasmania at Hobart Technical College in 1956, in Western Australia at the Perth Technical College in 1960, and in Queensland at the Central Technical College in Brisbane in 1964. While these programs, together with the three foundational ones described here, were ultimately the culmination of long-held dreams and more immediate machinations to professionalize planning, their inception still fell short of producing the numbers of qualified planners that Australia needed in the postwar years. Consequently, recruitment by local and state government of foreign-trained planners (particularly from Britain) commenced well into the 1960s (Wright 2001).

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# Chapter 8

## Planning Education in Brazil

Maria Cristina da Silva Leme

**Abstract** Urban planning education started in Brazil at the end of the 19th century. Since then it has been expanding and has consequently become more important. Initially taught in Engineering and Architecture undergraduate courses, it has been introduced in other areas such as Geography, Sociology, Economics and Public Administration, with a strong emphasis on professional experience. The involvement of urban planners in universities, public sectors and engineering firms will present both advantages and challenges for urban and regional planning by creating links between theoretical knowledge and interventionist practice. The expansion of graduate courses in Brazil's main cities and regional urban hubs has signaled the growing importance of this field of knowledge and professional expertise.

**Keywords** Engineering schools · Architecture schools · Graduate programs · Brazilian cities · Brazilian planners

### Introduction

This chapter reflects on the growing importance and complexity of urbanism and urban planning education in Brazil between the end of the 19th century and the present day. It emphasizes the absence of specific urban planning training in undergraduate courses. Planning was initially taught in engineering and architecture undergraduate courses, but increasingly has been introduced in other areas such as geography, sociology, economics and public administration, with a strong emphasis on professional experience. The content of courses was related to professional practice. The involvement of urban planners in universities, public sectors and engineering firms will present both advantages and challenges for urban and regional planning by creating links between theoretical knowledge and interventionist practice.

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Of particular note in this period is the relationship between the State's political actions and urban planning, both during the authoritarian government in the 1960s and after re-democratization in the 1980s. In the latter decade, professionals and social movements successfully campaigned to include a chapter on urban reform in the 1988 Constitution. In 2001, *Estatuto da Cidade* (City Bylaws) enacted regulations for policy instruments and added others that assure a recovery in land value, such as the granting of construction rights on a non-gratuitous basis; the transfer of the right to build; and granting priority to public authorities in the acquisition of urban land. The expansion of graduate courses in Brazil's main cities and regional urban hubs signaled the growing importance of this field of knowledge and professional expertise.

## **Urbanism in Engineering Between the End of the 19th Century and the 1940s**

Engineering education in Brazil started in military academies in the 1800s and as of the end of that century started to spread through several cities with characteristics related to local economic and political issues. The first engineering course started in 1810, in Rio de Janeiro, at the Royal Military Academy which was renamed the Polytechnic School in 1874. Twenty years later, first in the city of Porto Alegre and then in the city of São Paulo, two schools of engineering launched their activities (Ficher 2005). These schools provided professional expertise for the recently created municipal administrative political apparatus by combining knowledge about territorial control, such as surveying services with forms of intervention to modernize cities.

The pioneers of urbanism in Brazil worked in different engineering specialties such as the construction and enlargement of the road system and the implementation of the railway system. They channeled streams and developed projects to secure water supply and designed flood controls for rivers and sewerage systems; the latter had become increasingly urgent due to a growing frequency of epidemics that threatened the health of residents in Brazilian cities, and especially port cities. They also devised layouts of new cities and neighborhoods for the expansion of existing cities and oversaw construction.

The first generation of engineers who worked on the transformation of the urban structure of Brazilian cities in the first two decades of the 20th century were, with few exceptions, from upper-class families that financed their offspring's studies in engineering schools in France, Belgium or in the Polytechnic Schools in Rio de Janeiro and São Paulo. In São Paulo, education in urbanism did not precede the practice of urban planning. In fact, it came afterwards, with the clear purpose of legitimizing it. It appeared in the recently created Polytechnic School, as part of the civil engineering and architectural engineering courses, and its content reinforced the professional work that had already been developed mainly by public administration bodies.

The first bylaws of Sao Paulo's Polytechnic School established the creation of three different specializations: civil engineering, industrial and agricultural engineering courses. In 1894, the second edition of the bylaws foresaw the creation of an architectural engineering course. In addition to the subjects taught by academics, the first bylaws also foresaw the teaching of classes by practitioners who did not necessarily hold a university degree and who were hired for a two-year period. The institution combined theoretical education with professional practice in different areas such as civil construction (which was undergoing full expansion at the end of the century), agriculture and industry. The subjects with a stronger focus on public construction works were taught in the civil engineering course. During that period, French was the dominant language in intellectual circles at the main schools, as shown by the course bibliographies.<sup>1</sup>

One of the most important examples of urban intervention in the first decade of the 20th century was the construction of the Central Avenue in Rio de Janeiro, currently named Rio Branco Avenue. This connected Rio de Janeiro city's new port to its city center. Although this was only one of the works conducted under the beautification and sanitation plan implemented by Mayor Pereira Passos around 1903, it is by far the most widely known. Through this construction, Rio de Janeiro's downtown was radically transformed. The works to open the new and large avenue included the partial dismantling of a hill (Castelo Hill) and the expropriation and demolition of colonial houses. At the same time, in São Paulo, Alexandre Albuquerque, a young architectural engineer graduate from the Polytechnic School, put forward a project for large avenues running alongside the Anhangabaú Valley in São Paulo. The two projects had a common feature: the "Haussmannian" style, which despite not having a theory to support it, was admired by all who had visited Paris. The main elements of this iconic model consisted of diagonal avenues cutting through city blocks, the creation of green areas and the use of monuments as focal points.

However, the intervention plans and projects drawn up by the first urbanists were not restricted to circulation systems. In contrast to the two examples mentioned above, sanitation plans designed by the engineer Francisco Saturnino de Brito for more than 20 Brazilian cities between the end of the 19th century and the 1920s reveals a much more advanced technical approach to sanitary engineering and urbanism. The sanitation, improvement and extension plan for the city of Santos, which was also developed in 1903, had as the primary aim to control water born deceases and epidemics. In this plan, Saturnino de Brito used his intimate knowledge of the site's topography to situate the canals that are still a feature of the city's landscape and which address both, rain water discharge and sewage collection and disposal. This was an ingenious solution that linked the estuary to the Santos Bay and at the same time, used the sea tides for water discharge. Alongside the canals, the avenues and parks created the topology of the new road system for the entire city and connected it to the existing urban network. Aside from plans for

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<sup>1</sup>As shown in the Polytechnic School's Year Book from 1900.

the city of Santos, Saturnino also developed plans for the sanitation infrastructure the layout of the city of Recife's expansion (Moreira 1999, p. 455).

From the 1930s onward, a new generation of urbanists started to work on Brazilian cities.<sup>2</sup> These civil engineers, architectural engineers and architects, were responsible for the consolidation of urbanism as a field of knowledge and professional expertise. They took part in the organization of urbanism groups in professional associations, organized Housing and Urban Planning conferences and comprised the faculty of engineering schools in Rio de Janeiro, São Paulo, Salvador, Recife, Belo Horizonte and at the National School of Fine Arts, in Rio de Janeiro, where they introduced the new subject of Urbanism. As part of the technical staff in city and state governments, these professionals were responsible for drawing up the first plans for the totality of the urban area of the most important capital cities. Some notions of urbanism were part of the curricula of both civil engineering and architectural engineering courses. However, these courses had different contents. In the case of civil engineering, the focus was on sanitation, circulation problems, road and transport systems and basic municipal administration. However, following an initiative by Luiz Ignácio de Anhaia Mello, for the first time the architectural engineering course introduced a specific subject on urbanism for 5th year students. It covered theoretical and practical aspects such as urban legislation, methods for financing urban improvements, city expansion plans and public services, as well as a description of European and US experiences, such as the garden-city model proposed by Ebenezer Howard and innovative examples such as the New York Regional Plan.

The simultaneous insertion of urbanism in civil engineering and architectural engineering courses also occurred in other Brazilian cities, such as Belo Horizonte, Porto Alegre and Rio de Janeiro, thus creating rivalry on the labor market. The first graduates influenced by this urbanism contributed to the creation of a municipal administrative and political structure through their knowledge of legal and financial aspects and interventions to modernize cities. They were responsible for drawing up plans that brought about a radical transformation to the road structures of Brazil's main cities.

Most of these plans were implemented during the Estado Novo<sup>3</sup> period, thus modernizing cities from a functional viewpoint. Avenues were created and streets were enlarged, which transformed the road system in the central areas and created road links between the various neighborhoods and the central areas. This was the case of the Plano de Avenidas (Avenue Plan) drawn up and implemented by architectural engineer Francisco Prestes Maia during his mandate as São Paulo's Mayor (1937–1945). In Rio de Janeiro, the plan drawn up by French architect and sociologist Donat Alfred Agache was partially implemented by Mayor Henrique

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<sup>2</sup>For the biography of the second generation of engineers who worked in Brazilian cities, see da Silva Leme 1999, opus cit, p. 465–509.

<sup>3</sup>Estado Novo (New State) designates a period of authoritarian government implemented by President Getulio Vargas between 1937 and 1945.

Dodsworth (1937–1945). That period also saw a huge transformation in the road systems of Porto Alegre during the Loureiro da Silva administration (1938–1943), of Niterói during the Brandão Junior administration (1937–1945), of Recife during the Novaes Filho administration and of Belo Horizonte under Juscelino Kubitschek (1940–1945) (Rezende 2012).

## **A New Trend—Modern Urbanism in Architecture and Urban Planning Courses**

A turnaround in the teaching of urbanism occurred by the end of the 1940s with the creation of architecture and urban planning schools, which in turn led to a differentiation of two different career pathways and trajectories. On one hand, the existing engineering programs and on the other hand new programs rooted in the modern movement of architecture and urbanism.

The principles of this architecturally inspired movement included the definition of new spaces and the use of new materials associated to innovative production and pre-fabrication processes. Shapes were expressions of functions for which the buildings were created. Following modernist mantra, shape and function are intimately connected and realized through the construction process leading to a radically new type of architecture.

Between the end of the 1940s and the mid-1950s, most of the major Brazilian cities established Architecture and Urbanism Schools. The separation into architecture and engineering courses led to more consistency in project-making and introduced new themes such as socially-oriented housing, thus reflecting the architects' involvement in the issues discussed at the first Congrès International d'Architecture Moderne (CIAM). Although after a few years the international conferences of modern architecture expanded the debate from housing units to cities, in Brazil this movement remained slow and urban spaces continued to be conceived based on buildings. A paradigmatic example of this trend was the construction of the Education and Culture Ministry's building in the center of Rio de Janeiro in 1936. The building, which was designed by a team comprised of Lúcio Costa, Oscar Niemeyer and Affonso Eduardo Reydi, with French-Swiss architect Le Corbusier as a consultant, is considered a landmark of modern architecture in Brazil. The permeability resulting from a large gap between various parts of the building created an in-built plaza. In São Paulo, the Copan building in the center of the city, which was designed by Oscar Niemeyer, also shares this characteristic of being a building that defines a public space.

On a larger urban scale, the housing projects built for the Instituto de Aposentadoria e Pensão (Social Security Ministry) in several Brazilian cities were mono-functional projects, which with the inclusion of urban amenities managed to achieve a degree of urbanity as a whole. The construction of a university campus followed the transformation of isolated schools into universities. The first was

designed in 1936, in Rio de Janeiro, by a team comprised of Lúcio Costa, Affonso Reidy and Oscar Niemeyer and once again, with Corbusier's participation. Some of the characteristics of the University-City built on Ilha do Fundão (Fundão Island) point to the principles of modern urbanism and also feature in the designs for universities in Belo Horizonte, Recife, São Paulo and Vitória. The proposal foresaw these complexes having a great degree of autonomy and isolation in relation to the cities where they were built. In addition to the schools themselves, the project included managerial building complexes, hospitals, sports and cultural centers, as well as residential blocks for students and professors (da Silva Leme 1999).

However, the turning point in urban production was the competition for the Brasilia Pilot Plan in 1956. This was an important opportunity for architects to display their urban planning qualifications. For example, concepts of the neighborhood unit and housing unit can be identified as principles of spatial organization in plans submitted to the competition. On balance, these projects were out of step with the international debate at the time and only a few projects incorporated the criticism of modernist ideas that was already sprouting within the movement.

## Urban Planning Education

The Schools of Architecture and Urbanism, created from the late 1940s onward established a new type of professional—the urban planner. At the University of São Paulo, planning was taught to final year students as a single subject called Urbanism first introduced in theoretical classes and then deepened by subsequent practical work (Birkholz 1967). At first, this broad subject established the differences between urbanism and urbanization. Then, it addressed practical issues related to the city's administration: public finances, property valuation and urban legislation. Finally, it focused on public utility services, and more specifically concession and regulation issues. This final-year subject would train professional urbanist-architects to design plans on different scales, from regional to local.

In line with its proposal to combine professional experience with education, the university introduced another important innovation: the creation of an urban studies center (CPEU), which conducted studies and drew up plans for cities and regions in São Paulo State. The creation of CPEU by Anhaia Melo in 1955, as part of the School of Architecture and Urbanism, represented a new approach—a kind of extension or outreach center—which combined education and practical work in partnership with several local authorities in São Paulo State. The Center developed advisory activities for the drawing up of urban master plans and organized local planning teams. According to Birkholz (1967, p. 105), the CPEU developed plans for municipalities, including thermal spas and health resorts, which were legally obliged to draw up urban master plans. These technical advisory services to municipalities were, however, not the sole privilege of universities. In Rio de Janeiro, the Brazilian Municipal Administration Institute (IBAM), a non-profit civil association, also has drawn up studies and plans for municipalities since 1952.

The context of change and political radicalization in Brazil, meanwhile, had an impact on universities, faculties, program curricula and urbanism teaching. For example, in the School of Architecture and Urbanism in São Paulo, after a curriculum reform<sup>4</sup> the subject of Urbanism was renamed Urban Planning and its expanded content was taught to third-year students. The subject's program followed the same structure, but in much more detail, thus becoming a true urbanism and municipal planning manual. In terms of professional experience, there was a concentrated effort towards drawing up plans not only within local authorities, but also by free-lance professionals and consultancy offices.

It is worth mentioning an event that introduced a new level in terms of social reforms: the Seminar on Housing and Urban Reform organized by the Brazilian Architecture Institute (IAB), with support from the Institute of State Pensioners (IPASE) at the Quitandinha Hotel, in Petrópolis, Rio de Janeiro. At the meeting, an urban reform project was drawn up for subsequent inclusion in the broader set of Basic Social Reforms.

The military coup in March 1964 brought in an authoritarian regime, thus interrupting a series of proposals and initiatives for social reform. The Federal Government started intervening in a coordinated manner in housing policy and territory planning. The same law created the Federal Housing and Urbanism Service (SERFHAU), the National Housing Bank (BNH) and the Caixa Economica Federal bank. The government laid down the policies and created the financial means to implement them.

In his analysis of the growing institutionalization of planning in São Paulo in the 1960s, Feldman (2005) remarked that although plans were being drawn up, they were not executed through demand from the administration. They were rather part of a movement comprised of architectural bodies and bodies linked to libertarian municipalism, which favored this institutionalization of urban planning.

Bearing this in mind, rather than being executed as instruments to direct the actions of the executive power, these plans were fundamentally an instrument for the technical training of planning personnel. The institutional model for municipal planning disseminated at the time was based in Taylorist economic concepts and adopted efficiency as its organizational goal. Planning became therefore a politically neutral and universally applicable technique, outside of the scope of negotiations for urban policies.

In addition to traditional areas such as designing road and transport systems, urban planning was extended to cover other interventions including the provision of housing, health care and education. Rather than the expected integration, this resulted in increasing specialization and fragmentation. São Paulo's Basic Urban Plan illustrates the intensification of this process to further expand and detail urban planning. The Plan was elaborated by a consortium comprised of two Brazilian and

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<sup>4</sup>According to Birkholz, the Chair was called "urbanism" until the 1962 educational reform, after which it was renamed "planning". After the reform, its content was expanded and taught to the 3rd, 4th and 5th years.

two US companies, and for a year it involved over 100 technicians. This super-plan, presented in six volumes, was indicative of the growing distance between planning and the possibility of actual implementation.

Planners experienced a professional crisis during this period, which could be attributed to the perception of planning as an instrument inherent to the authoritarian government implemented in Brazil after the 1964 military coup. The until-then prevalent notion of a neutral State was set aside, as now the discourse differed from concrete intervention practices. However, as the ideology of technique and science as a form of legitimizing power prevailed throughout the entire authoritarian period, it led to urban planning being indiscriminately associated with authoritarian and repressive practices. The denial of a certain type of planning was the denial of all types of planning.

## **Planning and Politics—The Right to the City**

In the 1980s, three processes were responsible for introducing a new scenario into the urban question: the process of democratic opening, the State's financial crisis, and economic restructuring. The process of re-democratization in Brazil was long and slow and had a strong political impact on urban issues. Its consolidation required intense social mobilization, during which the population started demanding rights and access to housing and better urban services. During this process, social, intellectual and political movements played an important role that resulted in the inclusion of a chapter on urban reform in the Federal Constitution of 1988. After intense negotiations, this chapter attributed a political role to urban master plans by introducing innovative concepts such as assigning a social function to property and ensuring popular participation, thus increasing the rights to the city. Since the 1988 Constitution and its effective implementation in 2001 through the Cities Act, urban planning has introduced new urban instruments that reflect the democratic dimension of the State.

The Urban Reform movement that sparked the proposal for new instruments in the 1988 Constitution (finally sanctioned by the Cities Act in July 2001) derived from social movements which directed their focus to urban issues, combined with technical knowledge of urban instruments that granted city rights to a population which up until then had been excluded from urban policies. In this regard, urbanism is now based on a new and privileged relationship with politics. The challenge is to define novel urban planning policies and instruments which overcome current impasses in urban planning by employing different rationales and models. For example, the way in which zoning has been utilized for the past 30 years, as a form of control of land use and occupation, will soon be abolished. The alternative proposal is for it to be used as a mechanism to regulate the real estate market—through setting aside areas for social housing and proposing ways to redistribute the benefits from public investment in road and sanitation infrastructure.



## Expansion and Fragmentation of Urban Planning Education

The first post-graduate programs in urban planning were isolated experiences. The first was created in Porto Alegre, in the 1940s, bearing evidence of the close relationship between urban planners on the Southern border between Brazil and Uruguay. As part of the innovative educational experiment that created the University of Brasília, the institution launched a Master's Degree in Architecture in 1962. However, the program was discontinued only three years later due to a worsening of the political crisis of 1964. Then, at the beginning of the 1970s, in response to a federal policy of human resource training in public policy and city development, urban planning started to be taught in post-graduate programs at four universities—Universidade de Brasília (UNB), Universidade Federal do Rio de Janeiro (UFRJ), Universidade de São Paulo (USP) and Universidade Federal do Rio Grande do Sul (UFRGS). The new post-graduate programs<sup>5</sup> received support from the State Planning Department's National Council of Urban Policy (CNPUS/SEPLAN).

Analysis of the trajectory of the Association of Research and Post-Graduate Programs on Urban and Regional Planning (ANPUR) demonstrates the main aspects of urban planning education in Brazil. Founded in 1983 with only five programs, ANPUR has since significantly increased the number and the scope of its affiliated and associated institutions. As of 2016, it has 66 affiliated programs, of which 50 are in 15 state capitals and 16 in 16 regional urban hubs, offered by 45 state-run and 21 private institutions.

In fact, urban planning education has not only grown but also changed its profile to include urban and regional development, environmental planning, regional insertion and partnerships with other teaching institutions, state-run companies and foundations. Its main goal is to train professionals to work in public bodies and NGOs. While in economics, sociology and geography programs, the subject and goal is to understand the social and economic processes behind the structuring of cities and regions and to study the different institutional arrangements that intervene in these processes, post-graduate programs in urban planning have a dual goal of understanding these same processes and training students to act upon them with concrete proposals.

The specificity of these fields of knowledge and professional experiences poses important challenges to post-graduate programs and raises many questions about curriculum content, pedagogy and research. Certain trends have been identified with the emergence of new topics and themes and the decline of others. We now need to analyze the paths taken and the meaning of these changes. Planning issues have featured increasingly less in research, while greater emphasis has been placed

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<sup>5</sup>In 1970 UFRGS created the Master's Degree in urban planning (PROPUR). In 1971 UFRJ created the Master's Degree in urban planning (PUR); in 1973 FAU USP created a Master's Degree in urban planning and in 1976, UNB created its Master's Degree in urban planning.

on aspects related to management and governance. This trend suggests a shift from actions with a forecasting bent, towards greater emphasis on public administration issues. However, as well as being created amid new historical conditions in which the State is no longer the main player, this trend has increasingly pointed towards a practice of negotiations between public and private actions. Moreover, regional planning appears to emphasize more regional development with a focus on social and cultural aspects. New programs and courses on this topic are being created, which is likely a response to a demand for more experts and planners with such competencies. Environmental topics which have been already integrated in several program curricula are becoming increasingly preeminent.

In conclusion, it is suggested that there is an ongoing expansion and fragmentation of the subjects that comprise urban planning courses, demonstrating the need to develop a closer relationship between these various subjects and across the multiplicity of specializations.

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**Part II**  
**Emerging Global Movement**

# Chapter 9

## Adapting, Shifting, Defining New Roles: Education for a Maturing Professional Field

Andrea I. Frank

**Abstract** The establishment of the planning profession in an increasing number of countries has been proffered by a growing recognition of the necessity to regulate and organize urban growth and development. This is necessary both as a means to safeguard the health and quality of life of urban populations on one hand, and to protect natural resources on the other. This chapter provides a brief review of the quantitative and qualitative developments in the education of this growing profession. Drawing on a variety of reviews and national case studies, the dynamic and adaptable nature of the discipline is illustrated. While a maturing of the field is clearly noticeable with reflective writing and pedagogical research, comparative studies, and the formation of national and international networks and associations, planning education provision in some places is still poorly developed. The context specificity of planning and planning education which holds the field suspended between local specificity and conveying universal principles has stifled progress seen in other disciplines around standardization, quality assurance, and international accreditation. Instead, diversity, adaptation to new tasks, flexible pathways into the profession and innovative institutional partnerships seem to emerge as hallmarks of planning education.

**Keywords** Curriculum • Adaptation • Diversity • Partnerships • Program growth • Planning schools associations • Accreditation

### Introduction

The contributions in Part I of this book explore the birth of educational programs for a new type of professional, one who would be skilled and knowledgeable in developing (master) plans for urban extensions, legislation, and policy instruments to guide the organization of cities. Proponents of the profession positioned the field

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and its professionals in an uncharted, interdisciplinary sphere (Schuster 1950), drawing curriculum content from a number of related disciplines including surveying, architecture, landscape architecture, and engineering. Global population growth and development over the past century have seen a steady growth in the need for planning and planners which has now at the beginning of the twenty-first century reached new dimensions due to the unprecedented scale and speed of growth of cities in the Global South and East Asia creating an altogether novel set of challenges.

This overview chapter considers the status of planning education provision a century after the first programs were started. It questions broadly whether the field has been able to ‘keep pace’ with the demands of planning practice and how this was achieved? For this, the chapter draws on a number of international reviews of planning education programs as well as six national and regional case studies (Chaps. 10–15) to illustrate and detail particular aspects of the emergent global movement of education for planners. These include on one hand aspects of a globalization and internationalization of the profession and educational landscape which drive convergence in planning education curricula. Yet, on the other hand, these also demonstrate a continued importance of local and regional links and path-dependency that drive divergence and specificity. Looking holistically at the development of planning education perhaps the standout characteristic is the field’s ability to continuously adapt and innovate to assert value to practice and society.

## **Growing Demand and Proliferation of Planning Education Provision**

The 2009 UN Habitat Report on Human Settlements *Planning Sustainable Cities* stressed the value and importance of planning in creating sustainable, high-quality urban places. Alongside accounts of best practice in planning, the report included a first global inventory (UN-Habitat 2009, p. 189) of planning education provision. This inventory provided a conservative estimate of at least 550 institutions in 82 countries offering planning degrees (accredited or otherwise providing endorsement for its holders to practice planning). Information on educational offers are notoriously difficult to compile and the authors—erring on the side of caution—presume an undercount (Frank et al. 2014; UN-Habitat 2009). Nevertheless, scrutinizing planning education provision and curricula in the decades around the turn of the twenty-first century, the impressive quantitative and qualitative developments in respect to education for spatial, urban, and regional planning professionals become clear. What started as topical courses within programs of architecture or engineering or as postgraduate top-up programs established at higher education institutions in the first decades of the twentieth century has become a degree qualification in nearly half of the world’s countries. An initial boost in program and student numbers can be observed in the 1960s and 70s (UN-Habitat 2009, p. 186), and

further significant growth of urban and spatial planning degree programs occurred in several Central and East European Countries including Albania, Poland, and Estonia following the fall of the iron curtain in the 90s. Mironowicz (see Chap. 12) drawing on 2014 data in Poland relates a fourfold increase in the number of institutions offering planning education programs from 12 to 54 in 5 years. Numbers of planning schools and programs in China have also continued to grow from 97 (UN-Habitat 2009) to 175 planning programs in engineering schools alone (Chap. 6, Fig. 1). Yet, there is also evidence that provision is still rather unequally distributed and in places quantitatively and qualitatively inadequate. For example, while Bangladesh has currently seven planning schools (Chap. 14), the provision of planning education is desperately underdeveloped according to a measure introduced by Frank et al. (2014, p. 44) with a population (mio) to planning school ratio of 26:1.<sup>1</sup> Overall, a considerable dearth of good quality planning education capacity persists in Pakistan (Ahmed 2011), India (Kumar et al. 2016), several Eastern European, African, and other Asian nations small and large (Commonwealth Secretariat 2011; Frank et al. 2014; Lorens 2012; Watson and Odendaal, Chap. 10; Watson 2007).

Qualifications in urban and regional planning are available at undergraduate (3–4 year programs)<sup>2</sup> and master level (1–2 year programs). While undergraduate programs typically provide a broad generalist planning education, at master level, both, general and specialist planning degrees, such as transport planning, environmental planning, or urban design, exist. Many study programs at master level offer full-time and part-time routes. The level of degree that is expected or necessary in order to enter planning practice varies between countries, but it invariably influences the provision and uptake at national level. In some countries shorter degrees for professionals wishing to gain additional qualifications are also available; these have a range of titles (certificate, diploma, master) and are generally between 3 and 12 months in duration.

Given that for many years a majority of planning professionals from the developing world had little choice but to gain higher qualifications (master/PhD) by studying in North America, Australia, or Europe, it is interesting that correspondence and distance learning programs for planners were started comparatively late. One of the earliest programs was established in 1985 by a consortium of planning schools following a call for proposals by the Royal Town Planning Institute (Frank et al. 2014). Accredited programs in planning providing online study options only started in the last two decades—later than in many other disciplines—although universities with regional campuses, such as University of Virginia, Temple University and others (all USA), now regularly stream selected courses and lectures remotely. A survey by Godschalk and Lacey (2001) identified only seven distance

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<sup>1</sup>A Population (mio): Institution ratio less than 5 is considered good provision; Population (mio): institution ratio 5–10 is considered medium and ratios above 10 poor provision.

<sup>2</sup>In Europe there were also 5 year degrees in planning, mostly prior to the Bologna agreement and the reform of the structure of higher education degrees introducing three distinct cycles.

learning programs among over 90 providers of planning education in the USA and there has not been much growth in this sector since. This may be for economic reasons and lacking demand in a comparatively small field. Developing high-quality online programs is resource intensive and smaller cohorts will make amortization of investments difficult (Witherby and Cunningham 2001). Willson (2000) and Lawhon (2003), moreover, reasoned that educators may resist the use of online tools due to feared negative impacts on teaching and learning. Planning as a discipline focuses to a considerable extent on collaborative, interactive, experiential, and interdisciplinary pedagogies (fieldwork, studio, workshops, and service learning). This makes it as a field less conducive to individual and isolated study approaches easier to employ in online/distance learning settings. In future such obstacles may be overcome with the advancement of new Web technologies and virtual collaborative platforms facilitating new formats of planning education and indeed practice (see Part III, Chap. 19).

There are also opportunities to study for a doctorate in planning, although places and choice of institutions can be limited particularly in countries of the Global South or in developing nations (e.g., Chap. 14). PhD qualifications are not necessary to practice but have become increasingly a prerequisite for academic positions. This is in stark contrast to beginnings of the educational provision in urban planning when professors were as much practitioners<sup>3</sup> as they were educators. The professionalization of planning academics focusing on theories and research without immediate applicability, encouraging a rift between education and practice has been critiqued harshly in some circles (Baum 1997). Kunzmann (2004) moreover expressed concern that pressures on European academics to publish in international English language journals will severely curb opportunities for academic research to inform local practice where local language prevails. Among other things, the appointment of professors of practice or secondments has been suggested as ways to ameliorate the drifting apart of academic planning education and practice needs (e.g., Checkoway 1998). Nevertheless, a desire to improve quality standards in higher education is swaying many future planning educators from developing countries to seek research training abroad. This can lead to brain drain as researchers do not return to their home countries in all cases.

Lastly, doctoral degrees in planning are not always offered under such a label. While, there are many countries where PhD programs in various planning categories, e.g., spatial or regional planning, or urban, environmental and technological planning are offered, in some countries such as Portugal or Poland, individuals researching planning topics are hosted in Geography, Economics, Architecture or Engineering faculties as the higher education system does not include *planning* as a specified research field (Frank et al. 2014; Chap. 12). Implications of this, including a lack of dedicated funding and difficulties in creating synergistic research teams have been flagged as obstacles in advancing the field in such circumstances.

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<sup>3</sup>The widespread involvement in master planning and building of planning professors and their private practices are illustrated in Chap. 3.

## Adaptation, Self-reflection, and Dialogue

In the latter third of the twentieth century, various reviews and stock-taking reports began to materialize (e.g., Batey 1985; Dalton 2001; Diamond and McLoughlin 1973; Friedmann 1996; Fubini 2004; Healey and Samuels 1981; Perloff 1957; Rodriquez-Bachiller 1988). Together, these accounts conjure a complex, at time interrupted and by no means uniform or linear development for a subject that has often had a difficult time to establish itself as a distinct profession and independent academic field (e.g., Davoudi and Pendlebury 2010; Geppert and Cotella 2010).

There is some correlation between the level and speed of urbanization and development that a nation experiences and the type of planning and ergo training and education for planning. In early stages and conditions of rapid urbanization, there tends to be a focus on economic development planning, designing roads and infrastructure and layout of urban extensions, new towns or more recently eco-cities. As and when urbanization slows, and cities and infrastructure age, the focus of planning tends to shift to managerial issues, regeneration or managing decline. Sustainability, efficiency and modernization in the form of “smart cities” are emerging topics. The contribution of Choi and Kim (Chap. 11) provides an example of such a step-change in the focus of planning in the context of Korea, with recommendations for the necessary curriculum changes and adjustments.

Many past reviews of planning education provision (e.g., Cuthbert 1994a, b; Diamond and McLoughlin 1973; Friedmann 1996; Rodwin and Sanyal 2000) were, in fact, motivated by concerns that planning curricula had become outdated. The need for regular adaptation and adjustments to curricula to reflect changes in societal, economic, political, and environmental conditions renders planning a very dynamic field. Dalton’s portrait (2001) of the field’s incorporation of various themes such as advocacy, or environmental issues lucidly shows how academia modified planning curricula in response to practice needs and societal issues at particular points in time. While many changes have led to the introduction of specific new knowledge (e.g., environmental impact assessment, climate change adaptation measures), the field has also seen changes of a more fundamental and philosophical nature. These *paradigm shifts* (Stiftel et al. 2009) allude to changes in the underlying approach to planning which has over the years morphed from an artistic, to a technical and rational approach to a communicative one.<sup>4</sup> While such malleability has attracted critique, Frank (2006) has argued that the reflexivity and willingness of the planning academy to adapt curricula should be seen as strength rather than a lack of identity and weakness.

Overall, the reviews outline not only the development of the planning education provision but following Gerber and Williams’ classification (2000, p. 210) suggest that planning education has reached an intermediate to mature level as a field, especially in the industrialized nations. Both national and cross-national comparative studies were facilitated by academic dialogues in conferences organized by

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<sup>4</sup>See also Chap. 3 for a discussion of the different interpretations of planning over time.



societies and associations of planning educators such as the Association of Collegiate Schools of Planning (ACSP) and the Association of European Schools of Planning (AESOP) founded in 1969 and 1987, respectively. Since then many more similar associations have been founded; eleven<sup>5</sup> of them come together in the Global Planning Association Education Network (GPEAN) to jointly organize World Congresses (2001 Shanghai; 2006 Mexico City; 2011 Perth; 2016 Rio de Janeiro) and produce boundary spanning publications (*Dialogues in Urban and Regional Planning*, volumes 1–6).

## Diversity, Diversity, Diversity

Comparative studies of planning education in Europe and elsewhere (e.g., Alterman 1992; Fubini 2004; Rodriquez-Bachiller 1988; Stiftel et al. 2009) avidly document the diversity of philosophies and concepts underlying planning practice and planning education across different countries. Such diversity cannot be merely explained by temporal factors relating to urbanization levels and the evolution of planning paradigms—although they play a part. Socio-economic and political factors likewise have a role in shaping planning approaches and cultures and by extension planning education, whereby curricula content tends to reflect practice needs as well as ideologies (Gurran et al. 2008).

Planning curricula have to (or at least should) adapt to local ideological changes and foci in respect to spatial planning to remain relevant to the profession. This has been mapped by Dalton (2001); Healey and Samuels (1981); Rodwin and Sanyal (2000) and others. Typically, changes to curricula are implemented incrementally and fairly continuously through academics offering new options in emerging (research) areas such as sustainability, climate change, food or health in relation to city planning, or via the review and update of criteria and guidance by accrediting bodies (e.g., Planning Accreditation Board in USA or the Royal Town Planning Institute). In some cases, however, changes are initiated or triggered through external events, such as political changes or the reforms seeking to establish a common European Higher Education Area (EHEA 1999; Frank et al. 2014; Keller et al. 1996). Particular events, such as the demise of communist governments and the ensuing introduction of market-oriented economies have had momentous impact. It initiated the development of an entire new study field of spatial planning and the establishment of new planning degrees in some countries (Mironowicz in Chap. 12; Frank and Mironowicz 2009; Roose et al., Chap. 13). Yet, the extent and nature of the impact of such events on planning is hard to predict. Institutional inertia, professional cultures, and traditions can create path-dependencies, which have academics, at least in some parts of the world, worrying that establishing planning as a clearly defined discipline or field, however desirable, will remain an

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<sup>5</sup>For full list of GPEAN member associations see footnote, Chap. 1, p. 2.

ongoing struggle (Geppert and Cotella 2010). The developments in planning practice and education in post-communist Estonia (Chap. 13) are reflecting, among other things, precisely this aspect. The case studies of Poland and Estonia and the emergence of modern planning education programs as a consequence of a change in these countries' economic approaches and land markets, underscores the link from planning to societal systems and politics. It also demonstrates the complexity and difficulty of predicting developments, as despite similar societal transformations and needs for planning practice in theory, the development of the educational provision followed quite different paths.

Finally, adapting planning curricula—while perhaps necessary—is not always straight forward as the examples from formerly colonized nations demonstrate. These countries initially inherited the planning system of their occupiers and the requisite planning education approach. Upon gaining independence, inertia and underfunding often led to retaining curricula despite the fact that they did not match new development and planning conditions (Qadeer 1988; Sanyal 1989). Around the turn of the century or so, a number of these nations have now started to adapt 'imposed' or inherited planning education systems (Ward 2000) to better reflect local circumstances and traditions. These planning education reforms are discussed in contributions by Setiawan (Chap. 15), and Watson and Odendaal (Chap. 10), for planning education in Indonesia and on the African continent.

In sum, despite increasing exchanges and growing ease of travel of ideas and champions, planning curricula and programs remain (still) largely nation-specific<sup>6</sup>; i.e., they reflect the particular needs of professional practice in their national context. This is justified at least insofar as planners have different standings in different countries, whereby planning is either an unregulated, self-regulated, or regulated profession. Where planning is a regulated profession, there tend to be strict requirements for those wishing to enter the planning profession. Proving fitness for practice may involve various assessments of prescribed competencies and skills over a period of time and/or state level exams. Increasingly there are requirements of continued professional development to ensure chartered and registered professionals update their skills and knowledge regularly. At the other end of the spectrum—where planning is not a protected title—there is no need to register or hold particular educational credentials as precondition for working in planning practice. In cross-national comparison, planning curricula therefore exhibit more or less stringent criteria and consistency. A recent European-wide study (ECTP-CEU 2013a, Table 4.9) offers some insights into the differences of professional recognition levels. Across the 34 EU countries (28 member and six candidate<sup>7</sup> and affiliated nations<sup>8</sup>) there are four countries with no regulation in respect to urban planning professionals, 12 countries have regulations in place but these are indirect,

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<sup>6</sup>Programs that cater to foreign students and seek to prepare students for international development and planning work represent an exception.

<sup>7</sup>Turkey, Iceland and Serbia.

<sup>8</sup>Norway, Liechtenstein and Switzerland.

via related professions such as architecture or engineering, and there is some level of (self-) regulation in 18 other countries.

With curricular diversity justified and possibly necessary, it has been, to date, difficult to promote a globally valid accreditation, quality assurance, or guidance for planning curricula in terms of core subjects, skills, and knowledge. Moreover, in a progressively globalizing world overly localized nation-focused curricula and profiles may impede the professional mobility of future graduates. Variations in both focus and content of planning curricula can be significant. For example, while it is a requirement for planning students in Poland and Slovakia to have classes in Geographic Information Systems (GIS) and most US-based programs offer at least an introduction to the subject for planners, the UK's RTPI does not explicitly include GIS as part of their learning outcomes and consequently, the exposure of planning students to GIS is marginal.

Few studies exist to date that systematically compare planning curricula content cross-nationally. In the context of the European Union's promotion of free professional mobility between member states, the European Council of Town Planners supported by the AESOP embarked on a study that sought to fill this gap (ECTP-CEU 2013a, b). Methodologically, all courses from a selection of programs from 23 countries were grouped into eight competency categories (Theory of Planning, Techniques, Socio-economic environment, etc.) for a cross-cutting analysis. Findings show that credits/workload differed by up to 40% for some categories (Table 1).

This diversity, albeit necessary in light of different development needs in different countries, and even within countries as there is an ever increasing array of planning tasks that require different skill sets, poses unfortunately also a nascent

**Table 1** Profiles of sample curricula of 23 EU countries (Source ECTP-CEU 2013a)

Competency	Keywords or principles of associated topics	Weighting in curriculum (min–max) (%)
Theory of planning	Philosophy, planning theory, history of planning, professional conduct	0–15
Techniques	Impact analysis, GIS, demography, forecasting, surveys, qualitative research, modeling	0–39
Socio-economic environment	Sociology, economics, property economics, regional policy, European strategic policy	3–26
Built environment	Infrastructure, history of architecture, urban design, fieldtrips	1–38
Natural environment	Ecology, landscape, trees	0–15
Planning product	Studio, projects, plans, strategies	0–41
Instruments	Law, public administration, languages, tax and finance	0–30
Independent research	Dissertation, thesis, preparatory courses for dissertations	4–50

threat of disciplinary fragmentation, isolation or ridicule from outsiders. Awareness of the magnitude of these issues and their implications are a first step in developing innovative approaches for example around accreditation or quality assurance to address potential negative ramifications of curricular diversity.

## Accreditation and Quality Assurance

The growth of the higher education sector, changes in higher education funding and globalization resulting in increasing competitiveness between institutions has led to the widespread introduction of formal quality assurance procedures for institutions and/or programs (e.g., Billing 2004; Van Damme 2000; Westerheijden et al. 2007). This pertains also to the accreditation and evaluation of planning education programs (e.g., see Frank et al. 2012). In light of globalization and internationalization it has been mooted that transparent standards and qualification criteria would offer a basis for mutual recognition of awards and student and professional mobility. Yet, the above elaborated diversity of education practices and planning's nationally differentiated professional milieus are at odds with the rising desire of education providers to acquire a preferably international quality label for their programs (Commonwealth Secretariat 2011; Harrison 2003). Quality kite marks of some sort or another appear to becoming ever more important for institutions as they compete to attract students not only from their own countries but from abroad. Both the RTPI and the Planning Accreditation Board (PAB) in the US have been approached to extend their accreditation schemes beyond their traditional national and regional boundaries. Professional accreditation bodies are well aware of pros and cons associated with the global one world approach to planning education and its context specific cousin which makes international accreditation of professionally focused programs particularly contentious and complex. Nevertheless, in contrast to the PAB, the RTPI has relented and begun to accredit institutions overseas.<sup>9,10</sup>

Two initiatives by internationally operating planning schools associations are noteworthy in this context. First, there is the 'accreditation' approach pursued for decades successfully by APERAU—the Association for Francophone planning schools. APERAU was formed in 1984 in part responding to a need to provide accreditation for planning schools in France. Curricula of member institutions are assessed first as a basis for admission to the association and then reviewed on a rotational basis. Criteria and requirements are adjusted for member schools outside France to reflect local conditions, i.e., schools from French speaking North African

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<sup>9</sup>Accreditation guidance is updated from time to time. The most recent document is to be found at <http://www.rtpi.org.uk/education-and-careers/information-for-universities/gaining-accreditation-for-planning-schools/>.

<sup>10</sup>Outside the UK, University College Cork and University College Dublin (both Ireland), University of Cape Town (SA), University of Hong Kong and University of Botswana have RTPI accreditation.

countries, Vietnam or Quebec. Second, AESOP, the Association of European Schools of Planning which has so far resisted developing accreditation services for its member schools, offers a number of alternatives aimed at gradually improving standards. As a first step, AESOP published a core curriculum in 1995 which was updated to differentiate between undergraduate (first cycle) and master (second cycle) degrees (Verhage 2010) following the Bologna declaration (EHEA 1999). The core curriculum criteria remain invariably high level but serve as a guide for admission decisions for new member applications. Since 2010, AESOP also maintains an Expert Pool to provide advisory services to its member schools in regards to curriculum development and quality issues upon request. And since 2014 following continued demand for some kind of quality benchmarking, AESOP started to pilot a classification approach for planning degree programs. Universities can apply submitting details of their programs which after an assessment by a panel can achieve quality recognition in one of four categories:

- Excellent quality of planning study program according to European standards expressed in the AESOP Core Curriculum;
- European international profile and excellent quality of study program according to European standards expressed in the AESOP Core Curriculum;
- Cross-continental international profiles and excellent quality of study program according to European standards expressed in the AESOP Core Curriculum;
- European/cross-continental international profile and excellent quality of study program according to European standards expressed in the AESOP Core Curriculum;

At the time of writing the pilot phase was ongoing, but one can envision how this style of recognition which allows providers to select a particular student target market—whether more locally oriented, European or international—will likely be attractive and useful in judging quality and suitability among several distinct program profiles. Ultimately this multifaceted approach may be one option to address quality recognition and accreditation issues in a globalizing and diversified field.

## **Overcoming Challenges and Adversity**

While the planning education movement exhibits global expansion and a level of maturity, there is also a steady stream of challenges. Some of these come to life in the case studies of this part. For example, there is the challenge of establishing a comprehensive planning education program in a small country with limited university resources and ultimately a limited student pool such as Estonia (Chap. 13). Or, the task of initiating major shifts in the focus of the profession and the planning curriculum as in Korea (Chap. 11), Indonesia (Chap. 15) and on the African continent (Chap. 10). An intellectual struggle to determine the ultimate and perfect conception of and ideology for planning and planning education as a way to stave

off threats from other disciplines that seek to regain territory occupied by planners in recent decades, weaves through much of the contributions if only implicitly. However, is this a misguided endeavor? Should it not be expected that a field such as planning, with historical roots in different disciplines, educational traditions ranging from engineering to the social sciences and arts, and an ambition of being interdisciplinary, cannot and will not ever converge on a singular definition? Rather it may be best if planning educators embrace and make a virtue of the field's diversity. This notion is at least in part supported by Setiawan (Chap. 15).

Diversity and pluralism appears to already have become a reality in the European planning education landscape. Reflecting on the different conceptions of planning in different countries some decades ago Rodriguez-Bachiller (1988) identified three distinct models for planning education. In model one, planning is conceived as part of an established profession such as architecture or engineering and planning education is generally delivered via a degree in this parent discipline but as a major or specialism. Alternatively, planning is seen as a multidisciplinary field, which builds on other disciplines such as geography, engineering, surveying and so forth; the educational logic is to offer planning education as a postgraduate degree open to candidates from different (related) backgrounds and train/convert them to planning professionals. A final and third model is that of planning as an independent field in its own right with both undergraduate and postgraduate study programs. The latter tends to be the preferred model for many modern planning academics. As certain models were nation-specific, diversity as described earlier is generally greater cross-nationally than within countries. There are exceptions such as Poland, and, post Bologna reforms, in the European context a greater pluralism of models can be observed (Frank et al. 2014). Shorter education cycles and the stipulation of greater flexibility and choice in educational pathways have facilitated the multiplication of options for education in planning. For example, Frank and Kurth (2010) identified five possible, yet different, pathways within the German higher education system each leading to a different skill set and profile:

- The Bachelor planner (focusing on technical and relatively lower level planning tasks);
- The spatial/regional planner with a cognate spatially orientated bachelor (e.g., Geography/surveying) and a planning masters;
- The physical planner/urban designer with a cognate design oriented bachelor (e.g., landscape architecture/architecture) and a planning masters;
- The specialist planner with a planning bachelor and a different—e.g., civil or environmental engineering masters or a master in public policy or administration;
- The comprehensive planner with a planning bachelor followed by a master in planning.

Similar pathways can also be followed in the United Kingdom, Switzerland, and other European countries. In a world where the demands on planners are becoming increasingly differentiated and complex, diversity should be seen as an appropriate

response and one value of planning education is then precisely the variety of specialisms that make graduates employable and suitable to tackle different planning tasks, as Mironowicz argues (Chap. 12). The only issue may be that providers need to ensure employers understand the capabilities and different graduate competency profiles emerging from different planning education pathways.

Another challenge, less obvious from the case studies, is internationalization. This is not in terms of establishing internationally standardized criteria or accreditation but in terms of offering a certain level of internationalization in planning education. Depending on context ‘internationalization’ can refer to the *process* of integrating international aspects and experiences in the curriculum via fieldtrips, case examples and themes applicable in other parts of the world, to a *place* (the classroom where students from different nationalities study together) and to a *commodity* (tuition fee income from foreign students) (e.g., Peel and Frank 2008). The different interpretations are not mutually exclusive and can apply simultaneously. Frank and Symonds (2009) have argued that in terms internationalizing the curriculum, collaborative joint delivery by two or more institutions from different countries can be effective and resource efficient. Calls urging the planning academy to reflect on the usefulness of particular aspects of internationalization in a discipline having to address locally specific issues (Peel and Frank 2008) have not curbed its spread. The European Union actively incentivizes the creation of joint European master degrees<sup>11</sup> that are delivered through a minimum of three institutions from different EU countries. However, even without such subsidies, consortiums, and alliances which deliver planning education have started to emerge elsewhere. Often efficiency is not the driver in putting such programs together, although economics undoubtedly play a part; rather the aim in many instances, and particularly for Erasmus mundus programs, is to create degrees that provide new multicultural learning experiences and develop international, and intercultural competencies among future graduates and leaders. Links between institutions in developed and developing countries may be motivated differently but there is growing evidence that student and staff flows are becoming more balanced world-wide, meaning greater numbers of students from the US, Europe and North America are studying in China and other Asian countries. Case studies from Bangladesh and Indonesia (Chaps. 14, 15) both point toward the existence of collaborative provision between institutions in these countries and western developed nations such as the Netherlands and others.

Moreover, in addressing and overcoming challenges, the creative use of partnerships by planning education providers is a notable development, especially for promoting learning outcomes other than internationalization. Examples include the setting up of inter-institutional programs within small countries to pool expertise (Estonia, Chap. 13). Similarly, the links of African planning schools with a range of non-governmental organizations (Chap. 10) which establish relationships that support university—community engagement and facilitate a reconceptualization of

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<sup>11</sup>These joint degrees are known as Erasmus mundus masters.

the curriculum. Both of these cases are testimony to the resilience and innovative spirit of the planning academy. These approaches are breaking new ground and have the potential to ring in a new era where planning education programs can become beacons of engaged universities initiating true change in society. Further explorations of this theme are elaborated in Part III—charting future trends.

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# Chapter 10

## Partnerships in Planning Education: The Association of African Planning Schools (AAPS)

Nancy Odendaal and Vanessa Watson

**Abstract** The training of city and regional planners in Africa has historically been influenced by the varied colonial constructs of what planning is, and what it should do. A control-oriented conception of planning together with ill-founded assumptions of the institutional capacity of the state has had profound influences on what happens in the lecture hall and beyond. In this chapter we reflect on the evolution of the Association of African Planning Schools (AAPS), a network of over 50 planning schools on the Continent, and its efforts to revitalize planning education. Following a discussion of the three dimensions of its work (communication, working on shared projects and events), we focus how AAPS work engaged in partnerships with organizations external to the network. The notion of ‘knowledge networks’ is central to understanding this phase of AAPS’s work. Connections with like-minded organizations, which operate at regional and global scales, have assisted with learning and exchange of ideas. The most important of these has been the global exposure through memberships of GPEAN (Global Planning Education Association Network), joint curricular initiatives, and Memoranda of Understanding (MoUs) with SDI (Slum Dwellers International) and WIEGO (Women in Informal Employment Globalizing and Organizing) and more recently, partnership with the GLTN (The Global Land Tools Network) of UN-Habitat. Expanding AAPS’s work beyond the confines of its membership has enabled access to further funding, new projects, and extending its sphere of influence beyond the educational realm. This is critical in ensuring that curricula reform is accompanied by policy shifts and innovative practice.

**Keywords** African Continent · Partnerships · Planning education · Networks · Curriculum Modernization

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## Introduction

Planning schools in institutions of higher education on the African continent are organized through membership of the Association of African Planning Schools (AAPS), founded in 1999 and now consisting of 54 member schools in Anglophone, Francophone, and Lusophone Africa. The organization was initiated in response to the concern that African planning education was out of step with the realities of African cities, and was rooted in curricula informed more by those in Euro-America than the problems of how to plan in rapidly growing, largely informal, under-resourced, and poorly capacitated towns and cities (Watson and Odendaal 2013).

A key issue for AAPS from the start has been how to fund its activities, given that member schools have been unable to contribute membership fees. For some years after the initiation of AAPS it functioned as a 'virtual' organization, relying on electronic contact. Funding from the Rockefeller Foundation from 2008 to 2014, and later from Cities Alliance, significantly changed this and allowed AAPS to undertake a wide range of projects and initiatives which took forward its mission of changing approaches to planning education. However, the longer term sustainability of the organization, beyond shorter term funder interest, has always been a concern. This has prompted AAPS to seek out partnerships with like-minded organizations in order to support ongoing and related activities. A number of these partner organizations are, like AAPS, extensive global or regional networked organizations functioning both through a range of electronic media and through place-based membership action.

The focus of this chapter is how AAPS has created relationships with a range of partners to shift thinking more broadly on the continent on how to address the issues confronting African urbanization. We begin by presenting an overview of planning education in Africa, focusing specifically on the role of actors external to the academy. The second part focuses on the evolution of the network, followed by a discussion of partnership initiatives that have evolved over time. We consider how partnerships can contribute to the ongoing sustainability of the network and how they may contribute to a deeper shift in the values and ethics that underpin planning education and practice.

## Planning Education in Africa

Unlike in Latin America where colonialism largely ended in the 1800s, the development of planning in African countries coincided with the emergence of the profession in the global North. It was therefore inevitable that the planning and governance of urban centers would be heavily influenced by Northern approaches, and by particular colonizing powers. Consulting town planners educated in Britain or Europe almost invariably produced early town plans. Part of the prerogative was

also to use planning to service the colonial project, through extending control over colonial territories and the planning-enabled spatial segregation of urban settlements (Njoh 2009). Like early planning in Britain and elsewhere, a key informant for planning as a professional practice in colonized territories was fear in cities regarding the spread of infectious disease. Colonial authorities hence made concerted efforts to control and guide urban growth and settlement in the nineteenth and early twentieth centuries as ways of responding to public health and sanitation problems (Odendaal et al. 2015).

Thus, planning and planning education have to be viewed against a background of the continent's colonial and post-colonial past (Sawyer 2004). This externalization of planning influenced university degrees later developed on the continent. In most African countries, universities were established as part of the colonial project (providing a source of civil servants for colonial bureaucracies), but in the post-colonial period they became part of a broader nation-building process as well as a route to an emerging class of professional and political elite.<sup>1</sup> Under colonial rule, many African universities established planning programs to train civil servants to enforce national planning laws, usually close copies of those used 'at home' by the colonizing power. In all but a few countries, these planning systems remain today, relatively unchanged (Watson 2011). It is therefore not surprising that planning curricula were also strongly influenced by the traditions and models of European (especially British) and American planning education (Duminy 2010).

There is of course significant diversity as a result of different colonial traditions (and different local responses to these). Within the region, South Africa is often viewed as somewhat of an exception due to its apartheid history and resource wealth, but not all of its universities are necessarily in better shape than elsewhere in Africa. Its planning system has only recently been reformed in the post-apartheid era and its cities share common issues of poverty and service backlogs with neighbors to the north. What distinguishes South Africa perhaps is a stronger institutional framework for planning and for the higher education sector. The implications of this are that funding is available for research and planning reform is underway in some of the stronger municipalities. The latter is supported by highly decentralized local government, unlike much of the rest of the Continent where the decentralization project has been largely incomplete.

The influence of northern institutions did not end with colonialism (Odendaal et al. 2015). The post-colonial project coincided with the emergence of the Bretton Woods institutions and effectively the beginning of the development epoch in post-independence Africa (1950s to the late 1970s). As Escobar argues, the emergence of the development discourse around this time was rooted in "...the establishment of a set of relations among these elements, institutions and practices and of the systemization of these relations to form a whole" (1997, p. 91). The discourse of 'development' and the 'development industry' impacted on urban

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<sup>1</sup>Issues tabled in a symposium on African universities and published in *Social Dynamics* 33 (1) 2006.

planning thought, practice, and education. The period of consolidation of the development enterprise and the transition from structural adjustment to the Washington Consensus brought its own dynamics into the planning education domain (1970s–1990). The development policies of external agencies have, in various ways, had a profound impact on planning curricula.

The modernization discourse was particularly powerful as a form of technical advancement closely linked with industrialization, urbanization, material advancement, and large-scale public infrastructure development (Chari and Colbridge 2008). These assumptions are perhaps best illustrated in the proliferation of national development plans in the post-colonial era. While not necessarily spatial plans, they nevertheless aimed to provide long-term goals for economic growth (Odendaal et al. 2015). By the late 1960s, urban researchers critical of the dominant modernization paradigm were advocating community engagement in planning and development processes, while others emphasized the need to examine the relative position of African cities in global economic systems as a precursor to delivering better developmental terms (Mabogunje 1994). This influenced the creation of a second wave of planning schools that reflected paradigm shifts in mainstream Western discourse and national political ideologies.

Multilateral and bilateral institutions, through policy and funding initiatives, influenced the curricula and teaching approaches adopted in a number of programs created in the 1970s. The United Nations Development Programme (UNDP) for example, assisted in developing a full professional diploma in planning at the Ibadan Polytechnic (Nigeria) in 1974, after the planning school was established in 1961, and also assisted the planning program at the Ardhi Institute in Dar es Salaam (Tanzania). From the 1970s, this program was molded to reflect the national policy focus on rural development (in line with the fostering and adoption of Julius Nyerere's *ujamaa* ideas in the 1960s) and settlement upgrading. From 1978, Danish International Development Agency (DANIDA) further assisted in the training of planners in Tanzania (until 1997). Danish spatial planning academics had a significant impact on the design-oriented focus of planning education through project- and context-based teaching (Odendaal et al. 2015).

The punishing structural adjustment programs of the 1980s led to many cuts in funding of educational institutions and would ultimately impact on the development of new curricula and resources necessary to support them. From a curricula content perspective, the push by organizations such as the World Bank for the urban management paradigm and decentralization influenced the creation of programs equipped to train professionals to engage in such, as well as opening up funding opportunities. The limitations of the master planning, or blueprint approach to planning in enabling service provision and spatial inclusion, became increasingly clear in the mid-1980s (Devas and Rakodi 1993). Rakodi (2003) argues that this was also informed by dissatisfaction on the ground with the government's lack of efficacy and corruption, identifiable in the growth of social movements. A governance perspective that sees the terrain of planning as diverse and infused with agency interests beyond the reach of the state began to emerge.

This shift gave rise to specialized postgraduate programs in development planning and management. The Kwame Nkrumah University of Science and Technology (Ghana) introduced a joint Spatial Planning for Regions in Growing Economies (SPRING) program with the Department of Spatial Planning at the University of Dortmund, Germany, in 1985 (Diaw et al. 2002). This two year program was tenable in Germany (for year one) and Ghana (year two). This model of educating planners in support of the ongoing decentralization program has won recognition as one of the most successful models of international cooperation in both Ghana and Germany. The model was a key to the reform of the German educational system and was recognized in 2006 being one of the 10 outstanding international programs of higher education in Germany (Odendaal et al. 2015). The program has expanded to include partner institutions in Tanzania, the Philippines, and Chile.

In the 1990s, following the Brundtland Report (1987) and the United Nations Conference on Environment and Development in 1992, the sustainable development discourse influenced the agendas of bilateral agencies and consequently planning education in certain parts of the continent. The Sustainable Cities Program (SCP) initiated by the United Nations Centre for Human Settlements (UNCHS) and the United Nations Environment Program (UNEP) in the early 1980 showcased innovations in environmental planning and management. Planning schools benefited from funding assistance in this regard as well as the learning which this enabled. An example is the much-lauded Hana Nassif informal upgrade project in Dar es Salaam that involved staff and students from Ardhi University (Odendaal et al. 2015).

In 2009, the UN-Habitat Global Report on Human Settlements concluded that reformed institutional and legislative frameworks are crucial in creating a frame for planning to be enabling and facilitative, rather than controlling and undermining of the urban poor. There is a need to address pertinent pressures such as climate change, poverty, and informality. This entails moving away from the anti-urban bias that persists in many African countries (see Parnell and Pieterse 2014). Fragmentation of governance needs to be addressed in order to build a stronger relationship between planning, budgeting, and implementation. Broadening consultation and promoting collaboration between actors are essential to ensure participation, but most importantly, to facilitate implementation of plans and policies.

The extent to which planning schools in Africa have shifted their curricula to respond to these changing development agendas has been uneven and it has been difficult for some to achieve this shift in the absence of new national planning legislation and urban policies which their graduating planning students are required to implement. The Africities conference summit in November 2015 suggested an important step forward in this regard: African ministers supported a new African Urban Agenda to be tabled at the Habitat 3 meeting in 2016 and aimed at "...effectively harnessing the power and forces behind urbanization" (Spooner 2015). Pillar 4 of the communique supports "...the promotion of transformative change through strengthening urban planning, urban legislation, land management and governance, urban policies and development financing..." (African Union 2015,

p. 4) and a review of planning curriculums. This is perhaps the first official recognition of the important link between the future of African cities and the content of planning education.

### *The AAPS Project*

The AAPS project, entitled Revitalizing Planning Education in Africa, had from the start drawn attention to the important link between the content of planning education, the serious nature of problems emerging in African cities, and the role of planning graduates in this. Much of this process has been documented elsewhere (Odendaal 2012; Watson and Odendaal 2013), but it bears repetition. The early narratives on forming AAPS focused on the need to enable a closer relationship between planning education and the challenges of African urbanization. Such a simple statement fails to capture the significance and layered complexities of such an endeavor. For a start, planning education is enmeshed in a web of institutional and legal relations that evolve out of colonial constructs of what planning is, and what it is supposed to do. Despite the efforts of many, a control-centered, technocratic, and static interpretation of planning persists. This starts in the lecture hall, and this is where AAPS chose to target its efforts.

Part of the aim was to encourage sharing and mutual learning between African schools rather than through bilateral and multilateral links, which had characterized past efforts at educational reform. The first task was building a network and putting measures in place to enable continued networking and communication. The AAPS website was a core part of this strategy and its subsequent spin-offs: the Twitter account and Facebook page. The face-to-face meetings facilitated through school visits and workshops are probably what best solidified the network initially. Forming relationships across such a vast continent is not a simple task. Internet access was patchy with many schools operating with minimal resources and connectivity. Visits to planning schools by the project coordinator Nancy Odendaal revealed another gap: the generational one. While many established colleagues were well versed with the demands of their urban environments and the need for creative action, students and junior staff were particularly enthusiastic. In between meetings and presentations, outside the bounds of formality and the rigid impositions of seniority, AAPS was told of the need for a more contemporary and creative approach to urban planning. These conversations continue on Facebook and Twitter, a thriving mailing list and ongoing email contact.

The second dimension of the Revitalizing Planning Education project was to work on common projects. This is where curricula and pedagogy were foregrounded. Together AAPS members worked on devising a postgraduate curriculum that responds to qualities of urban spaces in Africa not previously considered in conventional planning curricula, such as informality, the relationship between infrastructure and spatial planning, access to land, recognition of the need for planners to collaborate with a broad spectrum of actors, and climate change. These



themes provided a useful structuring device for discussions on curricula content and skills. AAPS, with a number of partners, also developed teaching toolkits and other online resources for planning educators. The postgraduate curriculum that has evolved is now being piloted at the University of Zambia, in Lusaka. A spin-off project that secured its own funding is one on case study research and teaching (discussed later).

The third dimension of building the AAPS network was to organize events that were essential for ongoing energy and creativity. The AAPS all schools meetings (in 2008, 2010, 2012, and 2014) have proven to be essential in coming up with new ideas, fostering debate and new partnerships. When the AAPS 2014 was held in Cape Town, the network had grown to 55 member schools and the organization had become an active participant in a number of networks. Future trends indicate further international comparative learning around curricular development. Efforts to incorporate more South–South learning and establish alliances with other global civil society partners are currently being pursued. This discussion now shifts to a more detailed account of AAPS's collaborations.

## **AAPS and Its Partners**

From the start AAPS has been a 'flat' organization, structured as a peer-to-peer network of like entities (schools). This network, which has functioned electronically, has been an important mechanism for the rapid and up-scaled dissemination and exchange of ideas. Compared to other forms of organization, networks offer a flexible and non-hierarchical means of exchange and interaction which can be '... more innovative, responsive and dynamic, while overcoming spatial separation and providing scale economies' (Henry et al. 2004, p. 839). Further, it was recognized that the task at hand—to shift mindsets of academics and students regarding the kind of planning required in the African context—could not be done alone. Here the idea of 'knowledge networks' was useful. These kinds of networks often play a role in policy development and can link researchers, journalists, policy analysts and elected leaders: they function to produce and disseminate knowledge beyond the ability of any one element of the network, and also to enhance the status and resource base of their participants (Henry et al. 2004).

In forming partnerships with other networks with similar interests AAPS has attempted to shift from a knowledge-based, single sector network to becoming part of what has been described by McFarlane (2009, p. 561) and others as a potential 'translocal assemblage', or an example of '...composites of place-based social movements which exchange ideas, knowledge, practices, materials and resources across sites'. As such he is using the term assemblage to offer a different conceptualization of spatiality in social movements. Linkages were therefore forged with like-minded organizations and particularly those which also operated as regional and global networks. The most important of these have been GPEAN (Global Planning Education Association Network), SDI (Slum Dwellers International) and

WIEGO (Women in Informal Employment Globalizing and Organizing). More recently, AAPS has partnered with GLTN (The Global Land Tools Network) of UN-Habitat as well. The following section explains these connections and how they have benefitted AAPS.

### **GPEAN (Global Planning Education Association Network)**

This was the first network which AAPS joined in 2001, although GPEAN itself had only just formed. Ten planning school associations met at Tongji University in Shanghai at the time of the first World Planning Schools Congress and representatives of the newly formed AAPS signed the *Shanghai Statement* that called for the formation of GPEAN. Contact with the other member school associations of GPEAN was an important source of learning and exchange. From the Australian and New Zealand Planning Schools Association (ANZAPS), AAPS learnt that a peer-to-peer network was a useful form of organization where distance between schools was large and resources to meet were unavailable. ANZAPS helped AAPS to set up an electronic member listserv and for some years all AAPS communications were routed via Australia. It was only in 2008 when, with the assistance of donor funds, AAPS was able to hold its first face-to-face meeting of members. Prior to 2008 the focus of exchange between AAPS members was in order to select articles to be published in the Routledge global best papers book series, known as *Dialogues in Urban and Regional Planning*. An AAPS representative continuously served on the editorial board and AAPS nominated papers appeared in every volume. AAPS representatives have served as GPEAN co-chairs and chairs.

### **Shack/Slum Dwellers International (SDI)**

SDI is a globally networked NGO which supports the interests of community-based organizations in informal settlements. SDI approached AAPS to discuss engagement with planners and it seemed a good idea to invite their representatives to the 2010 AAPS all-school meeting in Dar es Salaam. One of the issues being discussed at this meeting was how to incorporate informality and the other key themes into a planning curriculum and the conference organizers felt that SDI could help on this debate. At the workshop the Nairobi planning school gave a presentation on how they had set up a relationship between their school and the local SDI affiliate to encourage planning students to undertake internships with SDI. One of these students participated in the presentation and described how this experience had changed the way he viewed informal settlements, such that on graduation he had secured a job with SDI. This reinforcement of the idea of incorporating informality

into teaching with a first-hand narrated example of how profound this experience could be, had a strong effect on the workshop members. At the end of the meeting there was support for the proposal that AAPS sign a Memorandum of Understanding (MoU) with SDI to agree to collaborate on projects similar to the Nairobi one.

This MoU was signed on November 11th, 2010 with the following statement of purpose:

To promote the collaboration of SDI and SDI country-based affiliates with members of the AAPS in order to promote initiatives, plans and policies which encourage pro-poor and inclusive cities and towns in Africa. The Partnership recognizes that planners play an important role in either facilitating or hindering the inclusion and improvement of informal settlements and slums, and that the education of planners has a fundamental impact on both their values and understanding, responses and practices, in relation to urban informality. The Partnership recognizes that one of the most effective ways to change the mind-sets of student planners is to offer them direct experiential exposure to, and interaction with, the conditions and residents of informal settlements and slums.

The nature of the collaboration is set out in the MoU as follows:

The parties are entering into this MoU on the basis that they are equal partners who bring different and yet complementary strengths to the tasks of:

- creating “pro-poor” cities that integrate rather than marginalize the interests of slum dwellers and countering the dominant urban development approaches which so often exclude them;
- collaborating (in the cities and towns of Africa where AAPS member schools have a presence) to expose students of city/town/regional planning to the issues and needs of those living and working in informal settlements, so that as professionals they will work directly or indirectly to promote inclusive and pro-poor urban settlements;
- exchanging ideas on the development of curricula in planning and the built environment;
- joint research and collaboration on the documentation and dissemination of successful cases of pro-poor intervention, both for use in teaching and to influence policy-makers.

AAPS encouraged its member schools to collaborate with SDI affiliates in their respective countries. This could include student internships with SDI affiliates, inviting SDI staff to give input and lectures to students, as well as research and/or teaching projects (particularly in informal settlements) in partnership with SDI affiliates. The latter took the form of joint studios co-taught by planning school staff and SDI and community members. Rockefeller funds were able to cover the costs of running six of these studios: in Namibia, Tanzania, Malawi, Uganda and Kenya. They aimed to act as experimental platforms to explore alternative methods of planning with local communities. They also intended to serve as catalysts for continuing engagements between SDI affiliates and AAPS members and to provide a basis for mainstreaming critical community-based engagements and informality into university planning curricula. The intention was that the studios should be consultative and coproduced to ensure that they serve the needs of local communities, SDI, AAPS and university curricula.

Interest in these joint studios from funders has allowed a further grant allocation from the Cities Alliance Catalytic Fund to support four more studios starting in 2015. The focus of these studios will be to involve not only planning schools and SDI affiliates, but also municipal governments to support discussions about ‘scaling up’ community upgrade projects to city-wide actions. It had become clear to SDI over the years that small-scale action in individual communities was unable to make an impact on bulk infrastructure investments which involved larger municipal budgets and provided services across cities and towns. Also, the increase in private sector property investment in African cities (with land allocations usually negotiated at municipal or national level) meant that unless informal communities were able to engage at higher levels of decision-making then they were likely to lose out on access to well-located land. Drawing planning students and their lecturers into these engagements with government will provide a further valuable learning opportunity.

An unexpected benefit of this partnership came as a result of the AAPS development of a model planning master’s program curriculum, which the University of Zambia (UNZA) agreed to pilot. Community-based studios and experiential learning formed an important aspect of this curriculum. A close relationship between one of the new planning staff members teaching on this program and the Lusaka SDI affiliate allowed community-based studios to take place right from the start of the program. In what is probably unprecedented in African universities, the Vice Chancellor of UNZA signed a MoU with the SDI affiliate in 2013 to agree to co-teaching by SDI affiliate and community members, and to collaborate in the production of research and policy regarding informal settlements in Lusaka. Subsequently this partnership between the planning school and SDI was the basis for a large-scale research grant from a UK funder to undertake research on informal settlements in Lusaka.

## **Women in Informal Employment Globalizing and Organizing (WIEGO)**

Since the signing of the SDI MoU, AAPS has also engaged with the global networks of the NGO WIEGO and a MoU linking the work of AAPS and WIEGO was signed in 2011. This served to incorporate another set of actors, agendas and forms of informality into AAPS relationships, as WIEGO supports (particularly women) informal workers in public spaces and in their homes. WIEGO, like SDI, had recognized the important role that planners play in African cities which was usually a negative and restrictive role but which could be turned around to recognize the importance of informal work and how this could be supported through urban plans and policies.

The purpose of the MoU was to “To promote the collaboration of WIEGO and WIEGO country-based affiliates with members of the AAPS in order to promote

initiatives, plans and policies which encourage pro-poor and inclusive cities and towns in Africa” (AAPS 2016). To date the relationship has largely taken the form of joint policy work and the publication of a working paper on the role of urban planning in supporting informal workers. However, in a more advocacy-style set of actions, both SDI and WIEGO representatives accompanied AAPS to the third World Planning Schools Congress in Perth (July 2011) to meet with GPEAN member planning school associations from Latin America and Asia to see if similar collaborative arrangements were possible on those continents. Unfortunately no direct expansion of engagements emerged from this meeting and currently it appears that AAPS is the only planning schools association to embark on the partnership approach.

### **UN-Habitat and GLTN (Global Land Tools Network)**

The AAPS 2012 all schools meeting in Nairobi was in many ways a manifestation of the various partnerships in which the network had engaged. UN-Habitat was a partner in hosting the October meeting at its Kenyan office in Nairobi. Claudio Acioly, Chief of the Housing Policy Section at the UN-Habitat opened the conference with a clear message in that regard. He called for AAPS member schools to partner with UN-Habitat in collaboratively developing the new African urban agenda, as well as resources for further networking and capacity building. Representatives of various sectorial departments within UN-Habitat were invited to present on their current research interests and priorities. Delegates broke into six thematic groups to explore potential collaborations between AAPS and UN-Habitat in a more focused manner. The groups were divided according to the themes: informal economies, climate change, planning, governance, land, and housing. One of the more practical outcomes of this exercise was the enrollment of AAPS as a member into the Global Land Tool Network (GLTN) (<http://www.glt.net/>). This is a network of actors that seek to contribute to poverty alleviation through land reform, improved land management and tenure reform, seeking progressive solutions that are gender sensitive and pro-poor.

A large part of the proceedings explored the relationships with SDI and WIEGO. Sheela Patel, Chair Slum/Shack Dwellers International (SDI) presented the opening conference keynote, emphasizing the key role of planners in driving governance structures and practices to become more inclusive—an imperative in African contexts where the urban population is young, networked and increasingly impatient with conventional modes of urban development and management. She highlighted the importance of the AAPS-SDI memorandum of understanding in this regard as well as the AAPS initiative to change planning law in Africa. Professor Winnie Mitullah of the Nairobi Institute for Development Studies represented WIEGO focused on the need to bridge theory and practice in planning education, in

a manner that ensures progressive principles of equity and sustainability in urban development.

The membership of AAPS in the GLTN has to date produced a number of invitations to meetings but nothing of further substance.

## **Network Creation**

AAPS has not only drawn on other networks to strengthen itself, it has also found opportunities to bring new networks into being. One of these has been AURI (the African Urban Research Initiative) which is a new network of urban research centers on the African continent and is funded through the African Center for Cities at the University of Cape Town. Founded in 2013 at a meeting in Ethiopia, the initiative used the AAPS membership to locate and make contact with some 17 research centers (some, but not all, attached to AAPS schools) and to draw them into an organization which will give input into the emerging African urban agenda to be presented at Habitat III in 2016. This initiative is now funded by the Ford Foundation. The principle here is that such an agenda is better shaped by researchers who fully understand the African urban context and can make a more meaningful contribution than experts from other parts of the world.

A second promising network has arisen around the need recognized in AAPS that it will be difficult to change planning education until national planning laws and policies shift from their colonial origins and respond more directly to the current realities of African cities. Drawing on earlier Rockefeller funding, research and networking on this question has produced two meetings at the Bellagio Conference Centre in Italy as attempts to create a new 'platform' for urban law change in Africa. Further funding from Cities Alliance has allowed the production of an Urban Legal Guide which gives advice on changing national planning law—this will be published in 2016. The most recent of the workshops, in 2015, has linked the issues of urban land law and urban finance in Africa and proposes to set up a new center to undertake both research and short course training.

## **Conclusion**

Knowledge-based and social movement networks have great potential to bring about change at scale, and the experience of AAPS over the last decade shows how this network has effectively circulated ideas, resources and connections to further the debate about the relevance of planning education in Africa. However, the task of shifting planning pedagogies is a major one, given the constraints under which planning schools operate, both within their institutions and within their broader environment. The theoretical literature on networks, and more recently on translocal assemblages, is useful for conceptualizing the kind of work that connected activities

and networks can do. Paying attention to practices and engagements in the constitution of these assemblages suggests ways in which organizations such as AAPS, SDI and WEIGO can further their agendas.

The chapter has discussed how recent strategies of AAPS to link with other networks, puts in place the preconditions for engagements in certain locales that can strengthen all networks involved, and can open the potential for new processes of planning education that go beyond lecture, text book and simulated studio (recognizing that these still have an important place in any curriculum). If students and postgraduate researchers are to experience the mindset shift that is required to prepare them for inclusive planning in cities which will continue to be poor and informal, then immersion in real-life experience is needed. The alliances between AAPS and social movement networks have opened up an exciting possibility for this to happen.

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# Chapter 11

## Planning Paradigm Shift in the Era of Transition from Urban Development to Management: The Case of Korea

Mack Joong Choi and Yoon-jung Kim

**Abstract** This chapter addresses the challenges that urban planning in Korea is facing as it transforms itself from a developing to a developed country and searches for a corresponding shift in planning paradigm. As Korea enters a stage of stabilization in which urban growth is slowing down and population growth declining, its urban planning is no longer primarily driven by massive urban development initiated by the central government. Instead, moving forward, its emphasis will rest upon micro-level urban management by local governments. With such transition from urban development to urban management, this chapter presents new directions and agendas of planning education, research, and practice, suggesting a shift from hardware to software, analysis to synthesis, and divergence to convergence, respectively.

**Keywords** Planning education · Planning research · Planning practice · Korea

### Introduction

Urban planning has had a crucial function in the processes of the rapid industrialization and urbanization of Korea. In fact, the rapid economic growth and corresponding shaping of modern Korea were in large part propelled by state-led urban developments, guided by urban planning. During the period of the 1960s through the early 1990s, extensive infrastructure expansion and urban development activities were undertaken as a means to achieve the national goal of economic growth as well as to satisfy the surging demand of the rural-urban migrants. Urban planning

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served as a tool in supporting the provision of the necessary urban land and industrial estates as well as physical infrastructure including roads, water supply and sewers. Moreover, it contributed to satisfying acute shortages in the housing supply, in response to unprecedented rapid urbanization and the subsequent suburbanization.

Consequently, Korea has achieved one of the world's fastest growth rates since the 1960s. Korea's GDP reached US\$512 billion in 2000, a startling increase from US\$2 billion in 1960. While about two-thirds of the population lived in rural areas in 1960, almost 90% were urban dwellers by 2000. The rate of housing supply, the ratio between the total housing stock and the total number of households, exceeded 100% in 2008 (Korea Statistical Office 2016). Accordingly, Korea has dramatically transformed itself from one of the poorest countries in the world to an OECD country with a GDP of US\$ 1.38 trillion in 2015, ranking 11th in the world in terms of market power.

Recently, however, Korea has entered a stage of stabilization where economic and population growth show abatement. Korea is currently experiencing a declining birth rate and an aging population, both of which pose challenges to market demand and productivity. Moreover, with stabilization in migration from rural to urban areas and the total number of housing stock exceeding the total number of households, there is no longer such a dramatic demand for large-scale urban development or massive expansions in infrastructure as has been seen in the past. Therefore, urban planning in Korea is facing new challenges. Today, urban planning is no longer primarily driven by extensive urban development initiated by the central government. Rather, confronted with diminishing demand of such development, it rests upon the necessity of micro-level urban management by local governments. As Korea enters the era of transition from urban 'development' to 'management,' the need for a paradigm shift in urban planning must be addressed.

Historically, planning has evolved according to different prevailing paradigms (Rode 2006). As Korea is in the stage of transition from a developing to a developed country, there is a pending need for a new planning paradigm in correspondence with the evolution of urban planning. This chapter, therefore, is devoted to examining the historical evolution of urban planning in Korea and suggests possible future directions of planning education, research, and practice in coping with the new challenges.

Firstly, the chapter examines the evolution and historical context of urban planning in Korea. Attention is given to the forces of social demand and politics that have shaped the urban planning of modern Korea, namely how it coped with such rapid urbanization and subsequent suburbanization. Secondly, it will then identify the challenges in urban planning that are being confronted in Korea today. Finally, suggestions for future directions and agendas in planning education, research, and practice are offered followed by conclusions.

## The Historical Evolution of Planning in Korea

### *Focusing on Physical Hardware of Space: Urban Development*

More than half a century has passed since the professionalization of urban planning in Korea. In 1959, the Korea Planning Association, an academic and professional organization, was formed. By the mid-1960s, urban planning was included in university curricula at both undergraduate and graduate levels.

Planning as a professional field emerged as a pressing need in the face of the many reconstruction projects necessitated by the devastation of physical infrastructure and housing during the Korean War (1950–1953) as well as the ensuing industrialization and urbanization. The War destroyed more than half the roads, railways, and industrial facilities in addition to an estimated 660,000 out of 3.28 million homes (Park and Kim 2010). Therefore, the initial mission of urban planners was to guide the country's rebuilding of destroyed physical capital. However, it soon assumed a more expanded role by providing an extensive amount of infrastructure and housing to propel and physically accommodate economic and urban population growth, as Korea began to transform itself from an agriculture-oriented country to an industrialized, export-based one. Economic growth was propelled by a series of state-led Five-year Economic Development Plans launched from the 1960s onwards, concomitant with a surge in the urban population. As a result, the population of Seoul, the capital city of South Korea, increased from 2.5 million in 1960 to more than 10 million by 1990. Today, about 25 million, almost half of the nation's population, live in the Seoul Metropolitan Area (SMA) whose area accounts for only 12% of the country's total land size.

A consequence of the massive migration from rural to urban areas was an explosive demand for urban land and housing as well as urban infrastructure which included roads, water supply and sewerage systems. In light of such rapid pace of urbanization there was, inevitably, a strong social demand for urban planning measures. Therefore, under the guidance of urban planning, extensive infrastructure expansion and urban development activities were undertaken by the government to meet the needs of the growing populace. The result of these efforts culminated in the 'Miracle on the Han River,' most notably extensive development of the *Gangnam* area, the southern part of Seoul, during the late- 1960s and 1970s and the hosting of 1988 Seoul Olympics.

During this period, urban planning largely hinged upon the forecasts of future population growth. It relied heavily upon a quantitative engineering approach to population forecasting and of estimating the necessary urban land, housing, and roads, etc., that would be commensurate with the increased population size. The primary goal of urban planning during this period was to provide basic physical infrastructure and to serve as a supporting tool in a wide range of urban development, including housing. Therefore, planning education focused predominantly on the physical *hardware* aspects of urban development in terms of land use and

infrastructure planning. For this reason, the field was largely regarded as part of the ‘engineering’ disciplines, as many planning programs belonged to the engineering school at universities (Kim et al. 2002). By the same token, with an excessive focus on supply of physical space or ‘development,’ urban planning has often been ignominiously charged of being one of the key causes of the ‘construction state.’<sup>1</sup>

### ***Broadening of Scope: Integrating Real Estate Economics***

The pace of urbanization in Korea started to slow down in the early 1990s. While urban populations increased at an alarming rate of 61%, 63% and 38% during each decade period of the 1960s, 70s, and 80s, respectively, such high rates decreased to less than 20% between 1990 and 2000 (Korea Statistical Office 2016). Subsequent to urbanization, however, suburbanization ensued and demands for investments in urban development continued to rise. In turn, large-scale new town development projects were undertaken by the central government outside the boundaries of greenbelts,<sup>2</sup> triggering urban sprawl while a non-trivial number of small-scale developments took place in a scattered form throughout semi-agricultural zones.<sup>3</sup> At the same time, in the existing hearts of the cities, a rise in squatter settlements as well as deteriorating multi-family housing estates, a result of the rapid urbanization process and hasty production, drove the need for urban redevelopments and housing reconstructions.

These new developments and redevelopments, predictably, prompted surges in land prices, resulting in a drastic appreciation of property values. Therefore, anticipatory investments or speculations on the properties of development projects became a matter of wide public interest.<sup>4</sup> But the fortunes of property owners or potential investors depended greatly upon the future decisions of local governments with respect to urban planning. Therefore, when the system of autonomous local governments was put back into place in early the 1990s, urban planning became of great importance in local politics as various proposals for urban development projects became customary election pledges (Lee et al. 2006).

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<sup>1</sup>McCormack (1996) first used this term to describe a state that is preoccupied with unrestrained constructions of public infrastructure involving collusive relationships of ‘business-bureaucracy-politics.’ The term has a negative connotation as it involves dissipation of the citizens’ taxes and destruction of the environment (Hong 2005).

<sup>2</sup>The Korean government designated greenbelts around large-sized cities in 1971 in order to curtail urban expansion and to protect the natural environment.

<sup>3</sup>Semi-agricultural zones were introduced and adopted during the 1993–2003 period to facilitate conversion of agricultural land to urban uses.

<sup>4</sup>The wide prevalence of Koreans’ passionate interest in real estate investment, or speculation to be more exact, was rather long-standing and deep-rooted, stemming from many windfall gains from *Gangnam* area development in the late 1960s.

Moreover, in terms of planning education and research, real estate economics was added to the conventional engineering approach. Notably, with the opening of the real estate market to foreign investors during the financial crisis of 1997–98, urban planning increasingly became inextricably linked with real estate. Urban planning was regarded as a central tool for satisfying public interest, but was also forced to address its relevance to market value as the new foreign investors in the Korean real estate market based their investment decisions on economic fundamentals (Doran 2000). In turn, the economic characteristics of real estate became an important aspect in decisions of urban planning. Accordingly, real estate economics has since become a regular part of planning education and research, and many graduates who major in urban planning pursue careers in the field of real estate.

### ***Broadening of Scope: Integrating Environmental Issues***

Meanwhile, urban planning as a means of limiting property rights and of restricting urban development activities has long been subject to a closed-door decision-making system, particularly under the authoritarian central government. Therefore, urban planning, with the exception of large-scale urban development projects initiated by the central government, has never been an issue open to nationwide discussion. During the 1997 presidential election, however, adjustment of the greenbelt area came to the forefront of national politics for the first time. At that time, the issue was addressed by the media largely as an environmental concern, even though greenbelts are, in principle, planning tools for urban shaping.

However, urban planning as a professional field soon came under the spotlight of the media and the general public when serious problems arose from the rampant and unplanned developments in the aforementioned semi-agricultural zones. These problems were a consequence of the relaxation of land use regulations in 1993, which allowed private real estate developers to undertake small-scale developments without elaborated planning control. Thereafter, starting from the early 2000s, ‘planning first and development second’ became a catchphrase in Korea, and the role of urban planning evolved to ensure the balance between urban development and environmental protection.

This reflects the fact that the natural environment has become a scarce resource with increasing urban development and sprawl on one hand, while people sought improvements in their quality of life with economic growth and ensuing increase in personal income on the other. Moreover, a series of pollution accidents in the 1990s led to increased attention paid to environmental issues (Park and Kim 2010). Therefore, from the 1990s onwards, sustainable development or environmentally sensitive development became a major concern of urban planning. As this overarching issue of the environment was not only a national, but also a global, concern with climate change worldwide, ‘green’ became a buzzword where environment

and energy issues have come to dominate planning issues in recent years. Notably, in 2008, Korea's former President Lee Myung Bak (2008–2013) declared 'Green Growth' as the nation's new vision.<sup>5</sup>

### *Continued Focus on Urban Development*

Beginning of the 1990s, planning approaches moved beyond simple quantitative analyses, or an 'engineering' approach. Urban planning integrated real estate economics on one hand and environmental issues on the other. Moreover, in the late 1990s, there were various future projections and meta-discourses on the upcoming millennium. With economic growth and urbanization rate showing abatement, the need for a paradigm shift in urban planning began to be acknowledged, i.e., making a transition from urban 'development' to urban 'management.' As a result, it suddenly became unfashionable to use the term 'development' in the official naming of urban planning-related public institutions and government agencies.<sup>6</sup>

Despite the recognition of the need for a paradigm shift, the era of 'development' continued even after the turn of the century. On one hand, to satisfy the yet unmet housing demand, there were extensive new town developments within the SMA. On the other, in the promotion of a balanced regional development, various new town projects were also undertaken in provincial areas outside the SMA. In particular, the 2002 presidential election ignited controversy over whether to relocate the national capital for balanced regional development and pushed issues pertaining to urban planning to the forefront of public concerns once again. As a result, urban planning enjoyed a heyday of sorts, owing to various new town development projects initiated by the central government intended to relocate government agencies throughout the country.<sup>7</sup> Though its justification has changed from satisfying the surging demand for housing and infrastructure to balancing developments between the SMA and the rest of the country, the focus on state-led *physical development* continues as in the past. As such, urban developments these days are considered to be no different from those undertaken during the development era, demonstrating the characteristics of a 'construction state.'

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<sup>5</sup>However, after President Park Geun-hye took office in 2013, 'Green Growth' has become less a focus of interest.

<sup>6</sup>For instance, Comprehensive Development Plan of National Territory was changed into Comprehensive Plan of National Territory, and Korea Land Development Corporation into Korea Land Corporation.

<sup>7</sup>The Korean government has decided to move 36 government ministries and agencies to Korea's new administrative city, Sejong City, and relocate public agencies of more than 170 outside of the SMA and into 12 metro cities/ provinces from 2012 onwards.

## A Transition from Urban Development to Management

### *Limitation in the Growth of the Urban Planning Field*

Even today, there are a number of ongoing national development projects, including public housing construction in greenbelt areas. However, there is a consensus on the future need for large-scale development projects that will be unlike those of the past. Demand for urban development has already been more or less fulfilled in most areas. Supply has caught up with demand to the point that, unlike in the past, there now exist unsold properties even within the SMA market.

Moreover, due to its having one of the lowest birth rates as well as one of the most rapidly aging populations in the world, Korea is experiencing barely any population growth. In fact, it is officially projected that the Korea's population will start to decrease in 2030 and the percentage of people over the age of 65 will reach 20% by 2026 (Korea Statistical Office 2016).<sup>8</sup> Consequently, it is widely accepted that Korea has reached a point where there will no longer be a surging demand for extensive, large-scale urban development. Recently, in fact, for the first time in the nation's modern history, there have been cancellations of area designations for new development as well as redevelopment. In the face of diminishing demand for large-scale urban developments, therefore, urban planning in Korea is facing new challenges.

Whether Korean planners like or approve of it or not, the demand for urban development has contributed to the growth of urban planning as a professional field. However, the future of urban planning can no longer count on this. A paradigm shift from 'development' to 'management' as once addressed in the late 1990s, is what is now called for. In the past, urban planning was one of the major issues in presidential elections, ranging from adjustment of greenbelt areas to the relocation of the national capital. It was a point of focus in local politics and local public administrations as well, which was a natural consequence of the fact that the provision of local public goods such as roads, schools, parks, etc., are governed by local governments. The most symbolic election pledge in this regard was the restoration of the *Cheonggye* stream in downtown Seoul, made by former President Lee Myung Bak, then a candidate running for mayor of Seoul in 2002.

However, in recent local government elections, issues concerning built environment such as urban (re)development projects, housing, and transport, for example, have not been highlighted. Rather, welfare-related issues such as

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<sup>8</sup>Korea recorded the lowest birth rate among the OECD countries in 2014, 1.21 births per woman, an increase from the lowest record of 1.08 births per woman in 2005 (OECD 2016). Moreover, the elderly population, persons over 65 years of age consisted of 7% of the total population of Korea in 2000 ('aging society') and it is expected that it will reach 14% by 2017 ('aged society') and 20% by 2026 ('super-aged society') (Korea Statistical Office 2016).

education and health care came to the forefront of election campaigns, which exemplified the paradigm shift to 'management.'<sup>9</sup> This is clearly a stark contrast from past elections. It implies that the current supply of physical infrastructure, such as quality water and sewerage systems, already fulfils the needs of local citizens and is no longer a pressing issue for residents. Moreover, due to continuous efforts in housing supply coupled with stabilized urban population growth, the connection between development and appreciation of real estate value has become weak and uncertain.

In sum, the physical *hardware* of urban spaces is not a critical issue anymore. Instead, the wide spectrum of *software* elements such as education, health care, culture, and social welfare, to name a few, is increasingly becoming of great concern to local citizens. As a consequence, urban planning and other built environment disciplines such as architecture, civil engineering, transportation and landscape architecture which have historically dealt with physical or built environment, are together facing serious challenges of further growth in market size.

### ***New Challenges of Urban Planning in Korea***

Looking back at the evolution of urban planning in Korea, it started with simple quantitative forecasting based on an engineering approach and broadened its scope by integrating both real estate economics and environmental issues. However, as Korea has now entered a stage of stabilization in which urban growth is slowing and population growth declining, the past engineering approach of forecasting future population increase and supplying the necessary land, housing, etc., is no longer viable.

Moving forward, it is expected that the relationship between urban planning and real estate economics will inevitably become less closely tied with reduced demand for urban development. At the same time, with fewer development activities, protecting the natural environment will become a matter of less concern, implying that there is a limitation of further growth of environmental issues-based urban planning as a professional field. Particularly, issues relating to environmental protection, energy conservation, etc., have already become a global concern extending beyond the domain of urban planning. Therefore, as Korea experiences a transition from urban 'development' to 'management,' there is a pressing need for new directions for planning education, research, and practice.

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<sup>9</sup>The most highlighted issue in the local election of 2010 was controversy over whether to provide free lunch for all schoolchildren regardless of income status.



## **Future Directions and Agendas for Planning Research, Education, and Practice**

### ***Recent Topics***

With recent trends of globalization, one of the most discussed topics with regard to urban planning is regional competitiveness. That is, in the globalized world of the 21st century, regional competitiveness is central to the competitiveness of a nation. Though this is clearly encouraging for the field of urban planning, at present, it merely highlights the need for strategic planning that encompasses a broader area, a Mega-City Region, for example. This suggests that the role of urban planning should go beyond serving as a tool for building and managing physical infrastructures at a technical level. Instead, it must add value to urban spaces by taking a policy-oriented and strategic approach at the level of urban administration and management.

Another popular topic in urban planning today is urban regeneration, which is promoted by the Urban Regeneration Special Act, enacted in 2013. It is rather questionable, however, whether urban regeneration in Korea has a solid foundation in a concrete concept that can lead to a new direction in urban planning. In particular, it is unclear whether Korea either has been or currently is experiencing a serious inner-city or citywide decline that should be treated as a national issue, as is the case in the United Kingdom or Japan (Choi et al. 2009). However, the raising of the issue itself is meaningful in that regeneration pursues not only physical but also economic and social revitalization in an integrated way. This certainly differentiates regeneration from the traditional redevelopment or reconstruction, both of which focus merely on improvements to the physical environment.

Moreover, community building that involves voluntary citizen participation has become more widespread in recent years. In Korea, after its introduction in the 1990s (Jung 1999), it began to gain greater government support from the mid-to late-2000s. During the period in which there was an absolute shortage of physical stock, the government played a direct role in undertaking extensive development activities. However, with large capital stock already in place, there is now a growing pursuit of the community's public interest. Therefore, since the mid-2000s, the central government as well as the local government started to actively assist in community building through various programs and an emphasis on 'people' and 'placeness' has become a new trend of urban planning in Korea.

### ***Planning Education: Integration Between Physical Hardware and Humanities, Social Sciences and Cultural Software***

Whether it is a matter of urban management to enhance regional competitiveness; socioeconomic planning to facilitate urban regeneration; or community building to satisfy public interest; the non-physical, ‘*soft*’ elements of planning are expected to become increasingly important in the future. Traditionally, during the period of high economic growth and rapid urbanization where demand constantly outpaced supply, planning education in Korea took an engineering approach focusing on supply of urban land, infrastructure, and housing that hinged upon population forecasting, while broadening its scope by integrating real estate economics and environmental issues. Today, the basic needs of ‘*hardware*’ elements such as roads and housing have been fulfilled and Korea is experiencing a flattening of economic and population growth with its aging society and low birth rate. In this context, it is expected that urban planning must further integrate with cultural as well as human and social sciences elements in which such issues will be some of the most important factors that lead to differentiated planning in different cities and regions. That said, urban planning in Korea needs to shift its primary mission from building mega-structures to providing more diversified, community-specific creative places for young people to congregate as well as restorative spaces for the growing elderly population, for example. Going forward, such attention given to ‘*software*’ elements of planning that define urban cultures and micro-level urban design will underscore the needs to integrate human and social sciences in planning education as well.

With increasing importance and prevalence of convergence among different fields that relate to the built environment in practice, urban planning will need to place more emphasis on a multidisciplinary approach, including socioeconomic and cultural aspects. That is, the agenda for the future planning education of Korea is to teach not only the traditional, technical engineering disciplines but also a broader curriculum which includes real estate economics, environment and energy as well as culture and design. This will, in time, further increase the comprehensiveness and complexity of the nature of urban planning by absorbing relevant knowledge encompassing a wide range of disciplines. Concomitantly, however, this may make urban planning more difficult to study.

### ***Planning Research: Balance Between Quantitative Analysis and Qualitative Synthesis***

The aforementioned agenda of planning education also stresses ‘*synthesis*’ in contrast to ‘*analysis*’ in planning research as well. Research in the planning field has recently inclined heavily toward quantitative analysis (Sung et al. 2009). The great majority and growing volume of planning research has leveraged much on

empirical analysis, for example, taking advantage of improvements in data availability and accessibility as well as advances in statistical techniques. These types of urban and regional analyses have therefore contributed to deepening our understanding of the nature of spatial environment as well as the mechanism of various urban and regional activities.

However, it should be kept in mind that ‘analysis’ is basically a supporting tool for ‘planning’ and that the purpose of ‘analyzing’ spatial phenomena is to provide information for urban planning. Accordingly, the aim of planning research is not in ‘analysis’ itself, but in deriving implications for planning. In comparison, planning is a synthetic process of taking various information from the ‘analysis’ and integrating and applying them to specific areas to arrive at location-specific solutions. Therefore, it would be short-sighted to have the ‘analysis’ without ‘synthesis’ or planning, meaning there needs to be research that integrates existing information and knowledge and applies it to the actual development or management of physical spaces. In particular, with the increasing importance of convergence among different fields of study including urban design, landscape architecture, and transportation, to name a few, planning research in Korea will need to focus more on ‘synthesis’ and not limit itself to quantitative ‘analysis.’

### ***Planning Practice: From Divergence to Convergence Among Related Fields***

Today, professional fields which deal with the built environment include urban planning, architecture, landscape architecture, and transportation. Although these fields had once flourished through segmentation or division into more specialized fields within urban planning, in recent years, they have commonly been faced with a formidable challenge. Not only is the market share of each field no longer likely to grow, the fields as a whole are often condemned as legacies of a ‘construction state.’

In the processes of rapid urban growth and market expansion, urban planning branched out into more specific fields of transportation, landscape architecture, regional science, housing, urban design, etc. During this period, the markets for urban development and infrastructure expansion were big enough that each and every field found its own niche in the growing market. Accordingly, professional and academic associations or organizations were formed for each field and each field had separate legislations that it answered to. In particular, even though the Basic Law of National Territory coupled with the National Territory Planning and Management Law were put in place in 2003 in order to function as overarching policy to shape the built environment, individual and independent legislation such as the Law of Scenic Management was also enacted. Moreover, even the Basic Law of Architecture, unprecedented worldwide, was legislated in 2008 and currently, the

Basic Law of Transportation, the Basic Law of Landscape Architecture, etc., are also being discussed.

However, as Korea experiences slow growth and a stabilized economy, there is a limitation, or even reduction, in the overall size of the market. As such, it is almost impossible for each field to seek further growth separately, because their share of the market is shrinking to accommodate every field that deals with space and place. Therefore, to maintain competitiveness in the market, the agenda for planning practice is to take a cooperative and integrated approach among both academic and professional fields which include geography, planning, transportation, environmental studies, urban design, architecture, and landscape architecture, to name a few, and collectively overcome the challenges of the diminishing market.

Albeit different, all fields share a common interest: place-making and enhancing the value of place. Their efforts to create added value through enhancement of built environments should be respected, and should not merely be delineated as a characteristic of a 'construction state.' Since urban planning has the capacity to encompass various fields related to the built environment, it should take a leading responsibility in integrating these fields. For example, the rising demand not only for housing but also for gardening spaces in residential yards resulting from increases in personal incomes, call for an integrated approach between architecture and landscape architecture. Another example is the collaboration between transportation experts and urban designers to address pedestrian safety, convenience and comfort, which have become important issues as greater importance is placed on pedestrians vis-a-vis vehicles in transportation planning.

## Conclusion

Urban planning as a professional field has evolved and broadened its scope for the past half century in Korea. Initially, the country experienced significant demand for urban planning to cope with unprecedented rapid urbanization and subsequent suburbanization. During this period, the focus was 'development,' in particular projects initiated by the central government, which was often criticized for its 'construction state' character (Hong 2005). However, in recent years, Korea has entered a stage of stabilization, economically as well as demographically. As a consequence, with diminishing demand for urban development, the country has seen a shift in focus from urban 'development' to 'management.'

With the evolution of urban planning and its shifts in paradigm, there has been an evolution of planning education, research and practice as well. The current challenges in urban planning raise doubts as to whether planning education, which traditionally employed an engineering-based approach with a focus on the supply of urban land, infrastructure, and housing based upon population forecasting, is still a viable course of study. Therefore, with the population's basic needs more or less met through 'hard' infrastructure, it is conjectured that the future direction of planning education will rest upon 'soft' elements of planning such as urban culture

and micro-level urban design. In respect to planning research, it also seems obvious that the focus needs to shift from quantitative ‘analysis’ which serves merely as a supporting tool for planning, to ‘synthesis,’ which is necessary for planning application in the real world. Furthermore, with the recognition that urban planning in Korea as previously defined will unlikely be a growth area in future, it will be necessary for the related professional fields to take a cooperative and integrated approach.

Urban planning is an interdisciplinary applied field of study. It collects and combines knowledge from a variety of fields and applies it to specific areas to seek location-specific solutions. The only unique discourse inherent to urban planning is planning theory, which discusses ‘why’ urban planning is necessary and ‘how’ it is developed and implemented. In this regard, Korea is undergoing a paradigm shift from a traditional, rational planning approach focused on expert knowledge to a collaborative planning approach that underscores the communicative, participatory nature of planning practices.

Planning education in Korea has placed too much emphasis on one particular plan-making methodology, i.e., an engineering approach and quantitative techniques which focus on the forecasting of future population and estimations of urban land, housing, and infrastructure that are needed to accommodate such numbers. Accordingly, the most important professional skill of planners was believed to be accurate population forecasting. However, there is no more population growth expected today in Korea. How, then, should we reorient planners’ expertise in an era where urban development tailored to accommodate population growth is no longer justified?

The key words in attempting to answer this question lie in a balanced and integrated approach: integration between physical *hardware* and humanities, social sciences and cultural *software*, balance between quantitative *analysis* and qualitative *synthesis*, and convergence among various academic and professional fields that share common interests in the matters of place and space. This implies that a planner will increasingly be required to play the role of a conductor, to make an analogy to an orchestra. That is, it will be of greater importance for planners to be able to not just to play one specific instrument such as violin or trumpet, but to be able to understand each and every characteristic of all the various instruments and to deliver an orchestrated, harmonized ‘sound.’ Here, the harmonized sound is analogous to ‘public interest,’ the ultimate and core value that justifies why urban planning is necessary.

However, it must also be noted that there is only one conductor in an orchestra whereas violin or trumpet performers are many. Therefore, a balanced and integrated approach will inevitably be coupled with the transition from mass production to small-batch production of urban planners. This may result in a decreased demand for undergraduate planning education, particularly in engineering schools where numerous certified planners have been trained as engineers or technicians. Instead, planning education at the graduate level will be required to accommodate a wider

range of curricula in order to meet the various interests and talents of students from diverse undergraduate backgrounds, all the while pursuing the common goal of fostering students' capabilities of value judgment as future planners.

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# Chapter 12

## Development of Planning Education in Postcommunist Poland

Izabela Mironowicz

**Abstract** Although programs in spatial planning at university level have been developed in Poland only after the transformation of 1989, their roots can be traced back to the first half of the twentieth century when the first university departments with a focus on urban and regional planning were established and courses offered. Today, planning education in Poland presents a robust yet dynamic picture with degrees offered by a range of both public and private Higher Education Institutions (HEIs) and with a considerable variety of profiles while still maintaining a strong *core curriculum*. A predicted fall in student numbers associated with a decline of Poland's population is, however, likely to affect the number and diversity of future planning education provision. It is hoped that the recently established Polish planning schools association can devise strategies to manage necessary adaptations.

**Keywords** Planning education · Planning programs · Planning curriculum · Educational standards · Postcommunist Poland

### Governmental Regime Change as Trigger to Establish Planning Education

Throughout the communist era, planning education existed merely as a specialization in architecture and engineering degrees with a focus on physical and technical aspects of plan preparation. In this sense, planning reflected the European

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urbanism tradition. Although planning was not taught and fully established as an independent field of study until the early 1990s, planning-related teaching, and especially, research in planning commenced at a similar time as in other European countries. For example, a Department of Town Building was established as early as 1913 at Lvov Technical University<sup>1</sup> (Pawłowski 1973) and the Society of Polish Town Planners (TUP, still existing), with an educational mission was founded in 1923 by researchers at Warsaw University of Technology. In 1958, the Polish Academy of Sciences established the Committee for Spatial Economy and Regional Planning (CSERP) with the objective to initiate new research activities in spatial economy and planning. The resulting vibrant research network has likely been one of the key factors that enabled the rapid and successful establishment of state-of-the-art planning education programs in postcommunist Poland.

Following the collapse of communism, Central European countries such as Poland, began to develop more market-oriented and participatory planning systems in the 1990s. This involved the restitution of land, and the creation of land markets as well as decentralizing planning competencies in line with pre-WWII practices when planning in this part of Europe required detailed land use plan preparation and planning skills at the local level (Ryser and Franchini 2008). Planning practitioners were ill prepared for these changes in planning practice and philosophy, lacking familiarity with approaches and instruments suitable for such a system (Hirt and Stanilov 2009). Recognizing the need to modernize the education for planners, academics quickly seized the opportunity to establish independent planning education programs.

## Fast Track to Modern Planning Degrees

One potential obstacle to the establishment of planning education degrees and a modernized planning profession was an extremely negative perception of “planning” in Poland and throughout all Central Europe as a result of 45 years of “central, state-imposed (socioeconomic) planning” as well as government restrictions and interference. Planning was, and frequently still is, resented by land owners who feel they should be free to exercise their property rights and develop land without externally imposed constraints. To avoid resistance to the reestablishment of a planning profession and the development of planning education, a neutral terminology for the new study field was selected: *Gospodarka Przestrzenna*—which roughly translates to “Spatial Economics”, “Spatial Economy,” “Land Economy,” “Spatial Management” or “Territorial/Spatial Governance.” This term resonated with the jargon of the newly emerging market economy while deriving

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<sup>1</sup>Although in 1913, Poland was not an independent state and Lvov was a part of the Habsburg Monarchy, academic staff of Lvov Technical University and the majority of Lvov citizens were of Polish nationality.



from the French '*aménagement territoire*' which embraces all aspects of planning. Energetically driven by the CSERP members, the first curriculum guidelines and programs in spatial planning and land economy were established in 1991, only 2 years after the fall of the iron curtain.

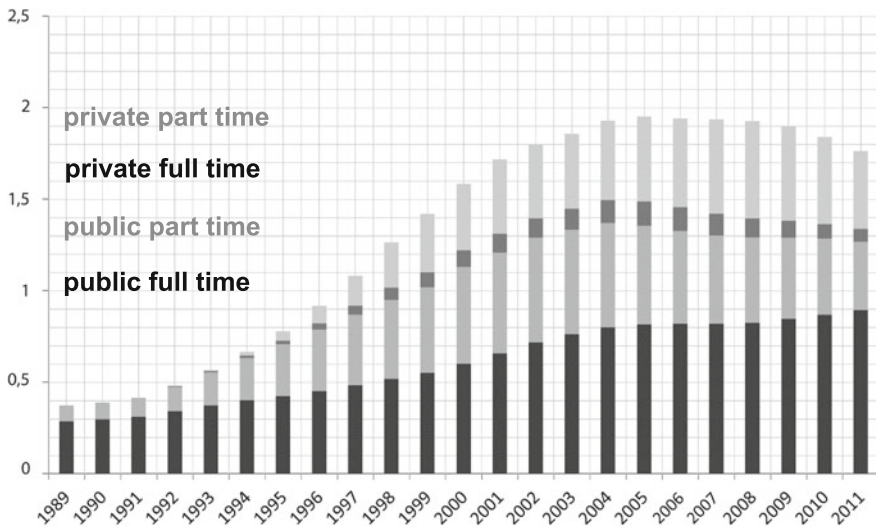
As the first two universities, which opened planning education programs, had different scientific backgrounds (Adam Mickiewicz University in Poznań at the Faculty of Geography and Wrocław University of Technology at the Faculty of Architecture), therefore, different but complementary curricula profiles emerged. In this context, it is worthwhile to understand that higher education institutions in Poland and in many other former communist countries are typically highly specialized and focused on programs in a particular set of associated fields. This peculiar institutional landscape of universities of the humanities, universities of economics, universities for natural sciences, or technical and medical universities and so forth was established under communist rule. It prevails until today, and has led to the development of a rich diversity of planning education programs with different foci (such as economics and management, natural science, regional science or physical planning).

Other aspects of higher education have changed swiftly post 1989. For example, the autonomy of Polish universities was reestablished for larger institutions in 1990 (Butler and Kritsonis 2006; Parliament of the Republic of Poland 1990) and in 1999, Poland became a Bologna signatory country. Following the 2005 Higher Education Act all traditional 4- and 5-year programs were transformed into Bachelor and Masters with the exception of a few subjects, such as medicine and pharmacy. The post-Bologna structure follows a model with six semesters (180 ECTS<sup>2</sup>) for nontechnical degrees and seven semesters (210 ECTS) for technical degrees carrying the professional title of "Engineer" for undergraduate studies, and three or four semesters (90 or 120 ECTS) for Masters. As planning is offered by technical and nontechnical institutions, both options exist in parallel (Frank and Mironowicz 2009).

As a means to help satisfy the demand for study places the state relinquished its monopoly as higher education provider leading to the establishment of many new private institutions of higher education (Frank and Mironowicz 2009). Within less than two decades of liberation, student numbers in Poland soared from 480 000 (1992/3) to 1.841.251 (2010/11). By 2014, Poland ranked fourth in Europe (after the United Kingdom, Germany, and France) in terms of enrolment in higher education at more than 40% of the population aged 19–24, compared to 9.8% in 1990. The number of institutions increased from 124 HEIs of which 18 were nonpublic (1992/3) to 472 HEIs of which 338 were nonpublic (2010/11) (Ministry of Science and Higher Education 2013); a number of these private institutions now also offer planning education.

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<sup>2</sup>ECTS stands for European Credit Transfer system and allows students to have credits earned abroad to be counted toward their degree at their home institution.



**Fig. 1** Full-time and part-time students at public and private HEIs (Ministry of Science and Higher Education 2013, p. 7)

Figure 1 displays the overall proportion of students studying at public and private institutions, enrolled in full-time and part-time study in Poland. It illustrates public institutions' focus on full-time programs while private HEIs teach proportionally more part-time programs. Differences exist also by type of institutions and subjects; for example, universities of technology do not offer many part-time programs while universities of economics maximize the number of part-time courses<sup>3</sup> to the limits allowable for public institutions.

By 2010/11 nearly 50 planning programs had been established across 43 Polish universities and higher education institutions. Programs in planning at undergraduate level were offered at three universities of technology (Wrocław, Warsaw, Białystok), six universities (Gdańsk, Poznań, Łódź, Opole, Olsztyn, Warsaw), four universities of economics (Warsaw, Katowice, Cracow, Poznań), five universities of life sciences/agricultural universities (Warsaw, Lublin, Poznań, Wrocław, Cracow), one university of applied sciences (*Fachschule* Walbrzych) and 19 private institutions all over Poland. Thirteen institutions offered planning education at Master level. With the exception for the Higher School of Finance and Management in Białystok, they all were public universities: Wrocław University of Technology, Adam Mickiewicz University in Poznań (two programs), Cracow University of Economics, University of Warsaw (two programs), University of Łódź (two programs), University of Warmia and Mazury in Olsztyn, Warsaw University of Life Sciences (SGGW), Poznań University of Economics, Warsaw School of Economics

<sup>3</sup>The number of students enrolled on part-time programs shall not exceed the number of students enrolled to full-time programs.

(SGH), Warsaw University of Technology and University of Economics in Katowice.

According to data from October 2013 (Ministry of Science and Higher Education 2013)<sup>4</sup> there are 47 full-time undergraduate programs in planning approved. This is split between 16 BA programs (six semesters, 180 ECTS) and 31 BSc programs (technical profile, seven semesters, 210 ECTS). Additionally there are 42 part-time undergraduate programs in planning approved, comprising 13 BA and 29 BSc programs. In total, throughout Poland there are 29 BA programs and 60 BSc programs in planning approved at undergraduate level. They are offered by 35 public and 19 private HEIs. As many institutions run at the same time full-time and part-time programs, which are counted separately, the numbers are “artificially” multiplied. For example, Adam Mickiewicz University in Poznań runs four undergraduate planning programs (BA full-time, BA part-time, BSc full-time and BSc part-time).

Comparing data from 2010/2011 and 2014 a considerable increase in technical programs (seven-semester BSc) is noticeable. On one hand, more universities of technology or technical HEIs offer planning programs, but on the other even universities which have no tradition and/or staff qualified to deliver a technical program profile decided to introduce new programs to attract additional students, such as Adam Mickiewicz University in Poznań, Faculty of Geography and Geology. The development is a response to preference by students who attribute greater value to the title of “Engineer” than to “Bachelor” and to the job market, which favors individuals holding a technical degree.

As for postgraduate degrees, in October 2014, there were 20 full-time planning programs approved. This includes 14 MA programs (four semesters, 120 ECTS) and six MSc programs (technical profile, three semesters, 90 ECTS). One of the schools offers both MA and MSc degrees. Additionally, there are 13 approved part-time master programs. This includes 10 MA and only three MSc programs. In total, throughout Poland there are 24 MA programs and nine MSc programs in planning approved. The technical profile in planning at master level is still quite exclusive and delivered only through public institutions. As program approval does not mean that an HEI has to open each (or even any) program and accept students, the actual provision of study places may differ significantly from the above statistics. Therefore, recruitment offices were surveyed whether in 2014 the planning program accepted students.

The survey reveals that after an explosive proliferation of programs in private institutions before 2010, planning programs are now offered by 20 institutions but in 2014/15 only 16 institutions actually ran courses. This suggests that the market for private institutions is saturated. It is important to note that private institutions generally focus on undergraduate planning education (only one runs a postgraduate program) as most cannot fulfill the strict standards and quality requirements imposed by the Ministry of Higher Education in respect to staff and academic

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<sup>4</sup><http://wybierzstudia.nauka.gov.pl/pages/search/wizard> and <https://polon.nauka.gov.pl/>.

“infrastructure” (i.e., number of books and journals available in their libraries, number of software licenses) for running master programs. They are also focused more on the practical (rather than theoretical) aspects of professional education and tend to offer specializations demanded by the job market (e.g., planning of public spaces, GIS in planning, local administration, investments and real estate, transport, urbanism).

Furthermore, it is interesting that private institutions offering planning degrees are located either in the country’s largest cities or in third-tier cities (Jasło, Elbląg, Zabrze). In big cities private institutions likely find a market in those students who failed enrolment criteria of public institutions, while in little towns they fill a gap in the educational market. Private institutions are more ephemeral with little stability in the programs they deliver. They change not only specializations but also entire programs very quickly. Until now, there is only one private school which has been consistently offering planning degrees since 1998 (Higher School of Finance and Management in Białystok).

The survey also revealed a significant increase in program provision by public universities—there are 34 institutions offering programs in planning. Many public universities of technology, in particular, decided to open new programs. In 2011, only Wrocław and Warsaw universities of technology as well as Warmia and Mazury University in Olsztyn were teaching planning with a strong technical profile, while today universities of technology in most large cities (Cracow, Łódź, Poznań, Gdańsk, Szczecin) along with institutions in second tier cities (Częstochowa, Białystok, Koszalin) opened planning programs. In fact—at present—public institutions with a technical profile deliver the majority of planning programs.

In contrast to the expansion of technically oriented planning programs, the number of public institutions that offer planning with an economic profile is unchanged since 2011. While, one could derive that planning is not considered an interesting option by business and economics/management students, curiously, the majority of planning degree programs at private institutions feature an economic/management profile.

A few new programs linked to geography also emerged at public universities. Planning is probably seen in these institutions as one of very few programs with an applied employment aspect among programs in the fundamental sciences and humanities.

The increase of planning programs in public higher professional schools can probably be explained in terms of finances. Planning belongs to the relatively “cheap” study fields as it does not require expensive laboratories. Additionally, the state supports development of these kinds of institutions in third-tier cities to deliver educational opportunities to less wealthy students, who cannot afford to move to big cities. In 2014, four such institutions offered programs in planning. Not surprisingly, exclusively BSc (“technical”) degrees are being offered.

The turn of planning programs toward a stronger technical profile, in spite of its advantages for the future of the profession, is not without issues. First, the degree is being increasingly offered by institutions with no experience and tradition in engineering education. Their academics are not qualified to deliver the technical

content and so external experts are brought on board to deliver the required technical teaching hours necessary to meet the criteria for the technical profile. This approach is unhelpful in creating a technical-thinking and learning environment supported by project, workshop or studio-based pedagogies appropriate for design and engineering education. These pedagogies are essential but comparatively expensive to deliver, requiring special work space and more staff hours for tutoring, which is not popular with private profit-oriented institutions or those that are not accustomed to such teaching levels. As a result, curriculum space given to such pedagogies is likely reduced to absolute minimum levels, ultimately leading to considerable variance in quality amongst planners with a technical profile. In the longer term this might create a backlash on planning engineers. In the short term, however, the success of the technical profile is leading to the closure of programs with nontechnical profiles and a decline in the rich diversity that characterizes the Polish planning education landscape.

Another phenomenon is the emergence of locational clusters where planning programs are offered by several different universities resulting in a very dynamic planning education environment. In the Polish capital Warsaw, for example, a total of eight different planning education programs are offered by a mixture of public and private institutions. Wrocław and Cracow *ex aequo* rank second with 4 HEIs offering planning education and third place goes, surprisingly among others, to Lublin which had no planning program in 2011 and now two institutions run planning programs. These numbers are on par with the numbers of programs found in second tier cities such as Poznań, Gdańsk or Łódź. Generally HEIs located in second tier cities are now more actively involved in teaching planning.

A final development of note is that the first Polish institution (Wrocław University of Technology) began offering a master program entirely in English, and a range of other institutions have started to offer select courses/modules in English to attract Erasmus and foreign students, but also to prepare Polish students for working in a global market.

## Curriculum Guidelines and Accreditation

Higher education in Poland used to be highly regulated, with state level guidance and standards for each of the 118 state recognized fields of study. Standards defined the name of the field, degree programs and requirements such as the number of semesters and hours of study, a graduate's profile in terms of skills and competencies, required content and learning outcomes, and minimum number of hours and ECTS for specified courses/modules. The guidance distinguished between undergraduate and postgraduate programs with an anticipated progression to higher level skills and greater depth of knowledge from Bachelor to Master (Markowski and Mironowicz 2008; Mironowicz 2006). The latest guidelines for planning education were ratified by the Ministry of Science and Higher Education in 2007. All programs were and still are regularly evaluated and accredited by the State

Accreditation Committee and programs deemed of unacceptable quality will be closed (Frank et al. 2012).

The regulation also distinguishes two categories of higher education institutions in regard to academic excellence: *university* and *nonuniversity* higher education institutions. In HEIs classed as *university*, at least one unit shall be authorized to confer the academic degree of Doctor (*PhD*, *DSc*). The label “university” or “university of technology” in the official name of a HEIs is reserved for those institutions, which have the authority to confer doctoral degrees in at least 10 disciplines (Parliament of the Republic of Poland 2005). The authority to confer doctoral degrees is awarded to institutions only if they employ more than a threshold of full-time professors and their publications and innovations meet very strict criteria. It is not surprising that public institutions represent the majority of HEIs classed as *university* as they have longstanding traditions, facilities, human resources, organizational culture, know-how, etc.

Public universities are state financed and full-time students pay no fees. Free higher education combined with research excellence make public institutions the preferred place to study for most students. The biggest of them create vibrant academic environments with tens of thousands of students and thousands of academics (e.g., the University of Warsaw had 52.101 students, and Jagiellonian University of Cracow 46.012) (Ministry of Science and Higher Education 2013). However, the number of places at public universities is limited and admission is usually merit-based. To provide additional opportunities for students to study, public universities sometimes offer part-time programs which could be extramural, evening and external courses. Commonly they are not considered to be of the same value as full-time programs as universities are allowed to charge tuition fees for part-time programs.

In 2011, an update to the Act on Higher Education created a radically different framework for all fields of study, revoking all previous guidelines. Under the new framework, program descriptions have to identify learning outcomes classed as knowledge, skills or social competencies, which serve as basis for future quality assessment. Moreover, any university entity (faculty, department) that has the right to confer habilitations<sup>5</sup> is now empowered to establish programs and curricula independent of ministerial guidance. Higher education entities, without the right to confer habilitations can also establish new programs, but these have to (1) comply with the generic learning outcomes for the applicable field of study,<sup>6</sup> and (2) receive approval by the Ministry and State Accreditation Committee. In both cases there is a requirement for a minimum number of academic staff (full-time) specialized in a particular field of study and associated with the program (as their main teaching activity). Radical changes in planning education programs due to these new policies

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<sup>5</sup>The degree of habilitated doctor exists also in Germany, France and Austria and generally is bestowed on individuals with significant scientific achievement post PhD.

<sup>6</sup>If no state guidelines exist for a field of study, the institution’s Senate has to approve learning outcomes.

are unlikely. The right to confer habilitations is linked to research status and sufficient academics holding degrees in a defined area of study. At present, only four planning education providers (Universities of Technology in Cracow, Wrocław, Gdańsk, and Warsaw) qualify to take advantage of the rule. The majority of planning schools will merely adjust existing programs by translating requirements into learning outcomes. What is, however, possible is to add more profiles (or specializations) to existing programs to respond to market and student demand.

From their inception in the 1990s, planning programs were regularly evaluated by the State Accreditation Committee, however recently major changes in this regime have been implemented. Prior to 2013 programs in planning were accredited by the social science division with a focus on economics. This approach had been contested by many universities arguing that planning is not merely a field of social science and economics and that it should be accredited by an interdisciplinary team. While this request was not implemented, from 2013 the composition of accreditation teams reflects the character and curriculum profile of the institution where a particular planning program is located. In other words, planning offered by universities with a technical profile is being assessed by the division of Engineering and Technology, planning degrees at universities of life sciences is being assessed by the division of Biological, Earth, Agricultural, Forestry and Veterinary Sciences, and so forth. On the face of it this appears to be an improvement but there is the danger that each discipline will seek to strengthen its profile and thereby weaken the “*planning core*” agreed in the 2007 guidelines, which played a crucial role in the development of a common identity of planning amongst HEIs and in society. Anecdotal evidence suggests that this process has started already, leading to a regrettable fragmentation and drifting apart of a discipline just at the point when major stakeholders in society are beginning to understand and value planning’s contributions to improving quality of life and urban environments.

## **Bachelor in Planning**

While the guidelines for planning programs introduced in 2007 are legally defunct, they are still practically in use, forming the foundations of planning curricula. They outline the following key learning outcomes and competencies for undergraduate programs (2007 guidelines):

- acquisition of essential skills from a variety disciplines including economics, sociology, law, engineering as well as environmental and cultural studies;
- acquisition of fundamental knowledge of spatial structure of socioeconomic development;
- competencies in spatial analyses;
- capability to develop human’s spatial environment according to their needs and technical demands with the respect to sustainable development;

- ability to cooperate in the preparation of planning documents such as local plans, development plans, local strategies, infrastructure development plans, environmental protection plans, regional plans
- capability of interacting with other built environment specialists
- ability to cooperate in urban and regional management
- competencies in real estate management; and
- ability to implement urban regeneration strategies and plans.

These guidelines also define two groups of compulsory modules (see Mironowicz in Frank et al. 2014). The first group (fundamental sciences) comprises of general subjects (mathematics, statistics, economics, sociology, physics) providing a broad intellectual background for graduates as well as modules that develop a theoretical base for specialized modules (economic geography, technical, and planning drawing, urban history, introduction to law). Drawing/graphics and physics modules were required only in technical universities. The second group (specialized modules) provided essential planning knowledge and skills. The latter constitute a “core curriculum” of sorts. Students also must complete an internship of 4 weeks minimum when completing a technical degree and three weeks when studying on the nontechnical route. From 2011, at least 30% of all ECTS are to be gained from optional modules which provide students greater freedom to shape their study program.

## Master in Planning

For postgraduate programs a minimum of four semesters and 120 ECTS for students with a Bachelor degree with nontechnical profile, and a minimum of three semesters and 90 ECTS for students with a professional title “engineer” is required. Students with a nonplanning background can be admitted into a masters in planning. The requirement in the past was to complete 60% of all compulsory modules of an undergraduate planning degree, which was relatively straightforward for students in environmental studies, geography, or architecture. After the 2011 reform, institutions can determine their own entry criteria, yet so far most continue to apply the tried and tested formula. It is also common that universities of technology accept exclusively graduates holding a technical degree (BSc) for the postgraduate program. There is general agreement that the following key learning outcomes and competencies defined in the guidelines (2007) can still be very useful:

- acquisition of profound theoretical knowledge which allow to conceptualize sustainable development and planning cities, regions and national spatial structure;
- scientific attitude to planning;



- acquisition of new methodological tools and techniques in planning, including specialized models;
- in-depth acquisition of social and cultural aspects of planning;
- capability to analyze complex planning problems;
- ability to create urban and regional spatial development strategies;
- capability to create urban, regional policy, and specialized policies (transportation, environmental, urban regeneration);
- high competencies in local, urban, regional planning;
- capability to create international spatial policy;
- ability to co-ordinate multidisciplinary teams and team leadership;
- acquisition of legal procedures in planning;
- ability to communicate concept and ideas to a larger public;
- skills in urban management; and
- advanced technical competencies in data analysis and GIS.

Basic/general required modules provide education in systems thinking and complexity (systems theory, environmental science) as well as prepare students for leadership (management). Specialized modules provided planning specific knowledge preparing students for practice with topics in planning policy (town planning, regional policy, EU spatial policy, and place marketing), planning law and technical plan preparation. Classes covering models in spatial policy and spatial economics seek to equip students with methodological tools for spatial analysis and scenario development (Mironowicz 2007). A master thesis researching a planning topic must be produced as a final part of any postgraduate program. The thesis has to be presented in both written and oral form to a committee of academics for examination (Frank et al. 2014).

## **Doctoral Studies and Continued Professional Development**

In Poland, individuals engaged in doctoral studies are not considered students in the classical sense, but researchers or teaching assistants under supervision of senior academics. With no designated research discipline in planning, candidates work in a variety of fields of study (human geography, economics, architecture, and urban planning, etc.). The number of individuals studying for a doctorate in planning is unknown, but it is estimated that roughly 20 PhDs graduate annually. A PhD is currently required for most teaching positions.

Several planning schools offer postgraduate studies (for professionals holding already a Master degree) leading to a certificate or diploma in spatial planning, urban management or urban regeneration, respectively, as a means to address the considerable demand to up-skill the workforce. A few HEIs offer also short courses on specific topics (e.g., GIS).

## Conclusions, Evaluation and Outlook

In contrast to other Central European countries, Polish universities established a remarkable number of planning programs not only in design and engineering oriented institutions but also in universities specializing in economics or environmental sciences. As a result, Poland presently has a broad spread of planning program foci, which was helpful in addressing the nation's needs in the decades of economic transition (Mironowicz 2007, 2010). This may change in future with the recent shift to more technical profiles in degree programs. As planning academics engage very actively in international networks there is a constant flow of ideas and knowledge exchange which benefits program development.

The state provided guidelines for the planning curriculum which were established in dialogue with planning academics and have ensured standards of high quality and levels of consistency in program delivery to date. The distinction between different profiles (technical and nontechnical) is at once interesting and controversial as it leads to a multitrack system of accreditation for planning education across different types of HEIs (Frank et al. 2012). Another noteworthy point is the large number of privately supplied planning education degrees.

A potential weakness is that planning practitioners have no formal influence on the planning curriculum. In the longer term, this could result in graduates lacking skills that the market demands. With a shortfall of qualified planners, employability is not yet a problem generally, but in some regions issues are developing. In Poland, average unemployment comprised 11.5% (September 2014). Spatially, unemployment varied from 18.2% (northeast regions) to 9.8% (Silesia, south of Poland). Although, overall unemployment in big cities is lowest (i.e. 3.4% in Poznań, 4.5% in Warsaw, 4.8% in Wrocław, 4.9% in Katowice, 5.3% in Cracow, 5.8% in Gdańsk) (Central Statistical Office of Poland 2014), the job market tends to be saturated for planners and many new graduates have to look for positions in second tier cities or suburban communes. However, students' prefer to stay in the big cities over moving to more provincial places. The interdisciplinary profile of planning makes graduates more flexible and provides an edge in a competitive employment market. They work not only in public administration but also in development companies and agencies, banks, EU projects, or regeneration agencies. This is one of the reasons why interdisciplinarity should remain a vital aspect of planning programs.

In 2012, the 18 largest planning schools in Poland signed a formal agreement to form a national Polish association of planning schools with the aim of cooperating in promoting planning and excellence in planning education. The main challenge for the association to date has been the recognition of planning as an autonomous scientific discipline which would facilitate a clearer academic career path for researchers in the planning field. At the moment doctoral degrees for researchers in planning are conferred in a wide range of different disciplines (economy, geography, technical sciences, etc.) only with a specialization in planning. This makes it

very difficult to form an influential environment because planning—being naturally inter—and multidisciplinary—lies at the boundaries of traditional scientific fields.

Finally, in line with demographic trends across most European countries, Poland has experienced a decline in total student numbers since its peak in 2011. Forecasts of the Ministry of Science and Education predict a reduction of student numbers by approximately 30% from 2011 figures to around 1.26 mio in 2024/25. This decline will also affect planning schools. Expectations are that applicant numbers will decrease particularly for part-time study which will likely result in the closure of part-time programs. As these programs were considered low quality, this could have a positive effect on quality standards. On the other hand, increasing competition between schools in the same city could lead to a lowering of standards. As the government's financial allocation for public institutions is calculated on the basis of student numbers, attracting sufficient students is crucial for the financial viability of an institution. This means that universities may be forced to lower entry qualifications in order to attract more students. Lower student demand for study places could also lead to a reduction in program offerings overall and a (further) decline in the rich variety of program profiles currently on offer.

The latter is particularly worrisome as the job market has only one preference—if the work is linked to formal planning at any level (local, city, regional), employers—both public and private—prefer graduates from technical universities, although, for other employers graduate profiles do not seem to matter. Thus, after a considerable period of expansion and growth, planning educators in Poland have to face a consolidation period. With a strong association of Polish planning schools in place, there is hope that strategies to address these future challenges can be developed in good time.

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# Chapter 13

## Advancing Education for Planning Professionals in Estonia—Between New Qualities and Path-Dependency

Antti Roose, Garri Raagmaa and Pille Metspalu

**Abstract** The chapter examines the factors and drivers influencing planning-related university programs in Estonia. In recent years, both the planning system and academia have been coping with high levels of societal dynamism and transition associated with the assertion of national independence in 1991, while seeking to overcome path-dependencies and to capture and implement innovative planning approaches. A shift from land use to strategic spatial planning requires the introduction of a new knowledge set in respect to balanced interdisciplinary and specialized directions. Results from a survey of planning practitioners illustrate the need for qualified planners, and upskilling of current practitioners who lack of competencies for contemporary planning approaches. Although in the 2000s, the number of quasi-planning degree programs reached a peak at 20 planning-related programs in six universities, the educational provision in the country lacks diversity and remains mostly limited to programs rooted in environmental and engineering disciplines. An alternative model for a cross-university joint planning program advancing the diversity of current programs, widening the array of subjects and depth of scholarship to enhance future qualities of the planning profession for a small European country could not be implemented thus far. However, as a major positive shift in professional advancement, setting professional codes and certification for spatial planners serves as post-curriculum standardization and harmonization of knowledge and skills, as well strengthening planners' position in the Estonian planning scene.

**Keywords** Planning education · University program · Path-dependency · Institutional collaboration · Estonia

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## Introduction

In Central and Eastern Europe (CEE), spatial planning has undergone a significant transformation (Adams 2006, 2008; Adams et al. 2014; Tsenkova and Nedovic-Budic 2006) and Estonia represents one of the ‘new’ European countries that phased out a centralized spatial planning system and replaced it with a new decentralized system while also introducing democratic, legal, and governance approaches for a market economy (Adams et al. 2010). After an initial period of mismanagement, failures and the vacuum of planning and an interregnum of the planning profession in 1990s, planning has rebounded and grown in maturity in the 2000s and 2010s. Reconceptualizing planning since late 1990s, Estonia progressed well in terms of Europeanization between contradictory tendencies of metropolitanization and peripheralization (Raagmaa et al. 2014). Contrary to Western Europe, where since the 2008 recession, formal planning has experienced contraction and is being replaced by localism and deliberation in England and the Netherlands (Haughton et al. 2013), development and planning in Estonia have remained buoyant due to EU-funded infrastructure projects and a growing real estate market, particularly in the metropolitan area of Tallinn.

Developing planning capacities, both in terms of numbers of qualified planners and professional know-how, has posed a considerable challenge for Estonia with a population of only 1.3 million. The shift from land use to more complex strategic spatial planning requires practitioners to obtain a new skill set (Nadin 2007; Shaw and Lord 2007; Tewdwr-Jones 2004; Roose and Kull 2012), and has led to a substantial skills gap in respect to interdisciplinary and specialized skills and knowledge amongst Estonian planning practitioners. In 2011 only one quarter of local authorities (56 from total 226) had specialist staff with planning-related qualifications in post (Ministry of Finance 2011). As a result, many mainly suburban and rural councils failed to meet statutory duties in respect to planning applications (Roose and Kull 2012).

The shortfall in administrative and professional capacity in planning has been recognized since the early 2000s. Although the number of students taking planning-related university courses has increased, it takes years to bring trained and experienced planners into the system. Moreover, there has been no successful effort so far to establish comprehensive spatial planning programs. Instead, planning education provision in Estonia to date has depended on niche programs launched by universities based on economic rationales. Such programs tend to focus only on new topics in urban development and as a result, spatial planning education in Estonia is not fit for purpose; it is, at present, conceptually loose and fragmented.

A review of the evolution of the planning system in post-1990 Estonia contextualizes the interrupted nature of the country’s planning scene and the exploration of planning practitioners’ needs reveals details of the current skills mismatch in the profession. This forms the canvas upon which the authors consider an ideal curriculum for planning integrating built environment and environmental disciplines as well as the social sciences. Rather than establishing an entirely new

program, it is envisioned that this ideal curriculum is realized through collaborative provision: pooling courses offered through existing planning programs at various Estonian universities, public authorities and private planning consultancies. The proposal also includes public–private staff exchanges and professional training as an innovative pathway to enhance planners’ skills. It responds creatively to two major developments affecting Estonian planning education. First, the introduction of tuition-free higher education, which has forced public universities to specialize and consolidate programs for financial reasons; and, second, the introduction in 2014 of a professional code and a certification for planners by the Estonian Association of Planners together with the Qualification authority which indirectly necessitates a review of curricula to ensure criteria can be met through educational programs.

## Evolution of Planning in Estonia

While Western European countries changed their planning doctrine, institutions and culture from positivist planning to more pluralistic approaches from the 1970s onward, Eastern European planning traditions remained largely unchanged until the 1990s. From there on, however, complex social and economic transformations which also affected the planning system occurred at an accelerated pace. By the 1990s, many CEE countries rushed to introduce new planning laws based on spatial planning, which even a decade later still had to see full implementation (Balchin et al. 1999). Faced with the reality of planning in situ and pressurized by private investors and stakeholders, planning officers tended to revert to their previously practiced habits and approaches. Thus, the mere imitative application of Western policies led in many ways to controversial results in CEEs because of the different economic and social environment, strong institutional dependency, and path-dependency of know-how, methods, and practices.

Estonia, also conducted fundamental structural reforms, and introduced planning principles and laws practiced in Western democracies from 1990 onward. Four transition phases can be distinguished: (1) a “non-planning” era in early 1990s; (2) establishing a new planning system mid to late 1990s; (3) ad hoc planning accompanying the real estate boom 2000–2008; and (4) from 2009 to the present, the correction of planning system errors, including development and introduction of new planning legislation in 2015.

In the first phase, the government created a land market through land and property restitution. Additionally, extensive decentralization transferred planning powers to newly established local governments requiring them to compile development plans. Many of these first plans were statistical compendiums and reports, rather than documents guiding growth and development with respect to territorial resources and conditions. The absence of comprehensive national spatial development strategies and consistent regional policies created a vacuum and institutional uncertainty (Balchin et al. 1999). Ministries, local governments, and

developers applied their narrow agendas without considering wider public interest on national, regional or community level. Consequently, this period has been labeled as systematic “non-planning era.”

From 1995 onward, in the second phase, a stronger planning framework and regulation became apparent (e.g., Estonian Planning and Construction Act, 1995). The Estonian government introduced the concept of sustainability as a key planning principle (Sustainable Development Act 1995). Following further amendments of the 1995 Estonian Planning and Construction Act in 2002—which were inspired by Nordic, and in particular Finnish planning laws—land use and environmental issues became an integral priority of planning (see Planning Act 2002–Riigi Teataja I 2002). The distinction between planning understood as land use planning and development as regional growth was significant. Institutionally, the planning mandate and responsibilities were transferred from the Ministry of Environment to the Ministry of the Interior, pioneering a brand new concept of integrated multilevel comprehensive planning from detailed plans up to national plan.

Despite drafting strategic agendas on the national, county, and local levels, documents often remained quite ineffective in terms of decision-making and investments. Part of the problem was that at national level there were more than 100 strategy documents which were overlapping, and only loosely coordinated and enforced (Keskpaik 2013). Collaboration by municipalities which could strengthen and consolidate implementation of regional plans remained exceptional and confined to the rare non-competitive projects such as green networks and major infrastructure works. Overall, municipalities have been struggling to empower comprehensive plans during piecemeal ‘ad hoc planning’ since mid-2000s. Nevertheless, the quality of plans has improved steadily (Roose and Kull 2012) and public participation has been implemented, albeit only sporadically and for contested projects. One of the key barriers in pursuit of a transformative planning practice has been the hidden politicization of planning with effective lobbying by private investors via multiparty alliances to assert development interests in an ad hoc fashion. As a result, investments and land allocations by permits are often only superficially grounded in spatial planning reasoning.

The period of ‘ad hoc planning’ has seen massive issuing of detailed plans for residential development. Planning increasingly relied on outsourcing tasks to private consultants and planners, architects and engineers who directed the plan-making. Planning of new housing estates often ignored zoning in comprehensive land use plans as developers could simply apply for amendments to the comprehensive plan on the basis of a proposed detailed plan. Planning initiatives by private investors therefore forced amendments to upper level plans. In cases of public opposition to new developments, developers tend to use various soft political, legal, and operational means to influence plan processing and decision-making.

Unsurprisingly, the last 15 or so years of post-communist planning practice has revealed some weaknesses in the current legal framework. While the overall system of four interdependent planning levels and compilation of planning documents is well established and works adequately, there have been issues with interpretations of the Planning Act. This has given rise to a number of unexpected court verdicts



that have surprised practitioners. Gradually corrections in the planning system have been carried out by municipalities learning from earlier errors, improving their competence, employing architects and planners as well as tightening their planning and construction regulations. As a result, detailed planning procedures of suburban municipalities, which used to be rather unsophisticated and fast when compared to those in cities, have become equally demanding and time consuming. This also meant that due to NIMBY attitudes a growing number of plans, including strategic projects like Rail Baltic or military exercise fields, were resisted at local level.

In 2008, the Ministry of Justice started the process of harmonizing laws concerning spatial matters (so-called codification). The 2012 draft of the new Planning Act received stern opposition from planners as under the guise of codification substantial changes in Estonia's planning framework had been introduced including a recentralisation of planning, new and controversial types of plans, reduced need for detailed planning, and less public participation to name only few. Despite the active opposition of the Estonian Association of Spatial Planners together with the Architects Union and the Union of Towns and Local municipalities, the act came into force in February 2015. The planning powers at national level were transferred from the Ministry of the Interior to the Ministry of Finance.

This new Planning Act requires, again, new planning knowledge, i.e., juristic accuracy, familiarity with an increasingly complicated planning framework, detailed know-how in issues like mining, greenery, marine planning. The law softens detailed plan requirements and initiates two new 'special' planning types that allow central government agencies to avoid local resistance. As the law sets strict deadlines for every single procedure during the planning process, efficiency and management skills will become crucial in future.

In sum, initially the planning system was malfunctioning due to a lack of professional planners, missing planning knowledge, and the shortage of skills for processing and assessing applications. The majority of plans were implemented in the frame of project-based business planning with an emphasis on short-term financial return. In the aftermath of the real estate bubble and economic crises in 2008 the speed of development and the associated volume of planning decreased substantially leading to higher quality plans and a streamlining of the process. In order to improve strategic planning and coordination, in the 2010s planning responsibilities were recentralized at county level, devaluing the local authorities. Yet, the implementation of strategic objectives remains hampered by pro-growth localism.

In addition to ad hoc pressures of private capital in 2000s, planning in Estonia experienced a significant push towards Europeanization over the past two decades. This Europeanization (e.g., Radaelli 2004) means that domestic institutional reforms and governance pattern were conditioned by EU rules and directives with perhaps the most important impact on strategic planning practices (e.g., Waterhout et al. 2009).

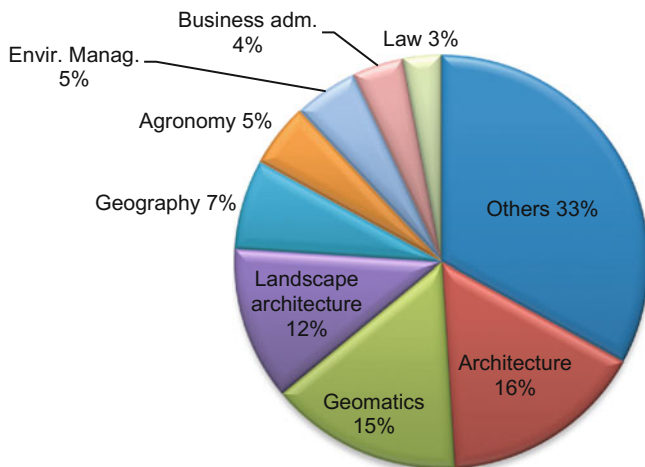
## Reinventing the Planning Profession

In parallel to the planning system, the planning profession and education for planning needed to be reformed. The question of planners' and planning' identity has been explored repeatedly by planning communities in the USA (Anselin et al. 2011) and Europe (AESOP 2013, 2010; Frank et al. 2014; Stead and Cotella 2011). It is also a constant discussion topic in the revitalized Estonian planning scene which has its intellectual roots in architecture. While, the predominant role of architecture was strengthened during the early 1990s, its importance waned when from 1995 onward a broader territorial, sustainable development and land reform based approach was adopted. Subsequently, from the mid-2000 onward, there was a resurgence of the architect planner, as booming real estate development, commercial and housing projects demanded fast, lean, and impressive designs.

In this respect, the development of a professional code for spatial planners by the Estonian Association of Spatial Planners and Estonian Qualifications Authority in 2014 represents a breakthrough. The Planners' qualification certificate has been welcomed warmly by local and state planning officials as the need for quality assurances is growing, particularly in light of the new 2015 Planning Act. Under this code, planners are seen as generalists who lead planning teams. Attributes and competencies of the 'ideal' planner include communication and negotiations skills, high ethical standards, being adaptable, innovative and versed in strategic thinking. There was also agreement that planners are to be knowledgeable about research methods, planning theory, forecasting and visualization techniques, which highlights the need to cover such topics consistently in planning curricula.

To explore the profession's skills needs, a survey was conducted by University of Tartu in collaboration with the Estonian Association of Planners. This survey mapped the educational background of professional planning practitioners and sought to identify possible shortcomings in their skills base. The questionnaire was e-mailed to 800 individuals working in planning practice achieving a response rate of 44% (351 responses). The majority of responses (63%) were received from the public sector; the remaining respondents were from the private sector (24%) and non-profit/self-employed sector (13%). Respondents from local authorities were also asked how many working hours they spend on planning-related versus other tasks. The outcome confirmed the assumption that in many small rural municipalities planning is only part of officials' duties. In fact, only 19% of respondents noted that their work involves exclusively planning issues, while 39% of the respondents spent at least half of their office hours on planning issues, and the remaining 42% only around one quarter of their time.

Respondents' educational background was highly diverse with only around 50% being educated in a conventional planning-related field such as Geography, Landscape architecture, Geomatics or Architecture (Fig. 1). The turn towards a social science orientation in planning, reported in emerging markets (UN-Habitat 2009), cannot yet be corroborated in the background of Estonian planners.



**Fig. 1** Educational background of employees in Estonian planning sector

The respondents were asked to specify whether they were engaged in developing strategic plans, land use plans, county-level plans or detailed plans, managing planning processes, elaborating specific surveys and analyses, or conducting inspection and quality control. Answers were correlated with educational background to understand whether specific training fosters specialization. The results show that architects and landscape architects are more likely involved in detailed planning and processing plans in local authorities; geographers are more likely engaged in strategic and comprehensive planning and supervising plans at regional or national level. Land surveying graduates are often employed to process plans. Specialists primarily contribute to individual stages of the planning process; generalists, on the contrary, work in upper tier and strategic spatial planning positions.

In relation to skills needs, responses were unanimous without differentiation by background and job specialties. Analytical and logical thinking (94% respondents), ability to formulate spatial relations (87%), communication and teamwork (37%), accountability (14%) and creativity (12%) were keywords mentioned most. Around one third of the respondents found their skills were most deficient in planning theory, GIS, and cartography (Table 1). The results are somewhat alarming and highlight both, the need for planning education and the inadequacy of current programs in planning-related subjects.

Despite the variegation of educational backgrounds of planners in Estonia, the consistent responses on skills needed for practice indicate a convergence of diverse understandings about the essence of Estonian planning. The results of the survey and the establishment of the professional code, thus, mark the end of a long tradition of planning seen as merely a specialization of architecture and technocratic instrument (Hirt and Stanilov 2009; Maier 1994), a development recognizable not only in Estonia but in other CEE countries. The question for the future is how to support this new community of planners institutionally and educationally. The

**Table 1** Reported deficiencies in planning skills (multiple responses allowed)

Subject area	n	% of respondents
Planning theory	130	37.0
GIS and cartography	120	34.2
Planning impact assessment	111	31.6
Development trends and social processes in the society	109	31.1
Analysis of planning solutions	106	30.2
Negotiation skills	106	30.2
Legal system, legal acts	97	27.6
Presentation skills	94	26.8
Creative skills in drawing up planning solutions	86	24.5
Sociological research methods	86	24.5
Formulation of spatial relations	85	24.2
Shaping the spatial environment	83	23.6
Team leading skills	76	21.7
Leading the planning process	71	20.2
Spatial perception of activities and matters	69	19.7
Content and structure of plans	40	11.4
Development trends in home region	33	9.4
Coordination of planning process	30	8.5
Local authorities institutions	28	8.0
Estonian planning system	26	7.4
Responses	1586	
Respondents	351	

integration of design and social sciences in planning curricula, as promoted by the 2009 UN-Habitat report *Planning Sustainable Cities* could be one of the ways forward. Similarly, the UK's Royal Town Planning Institute's planning education guidance and its support of a diverse and multidisciplinary approach to planning (Ellis et al. 2008).

## Adapting and Enhancing Planning Education

A key issue for spatial planning education in Estonia is the absence of a single comprehensive curriculum or even a set of agreed topics and learning outcomes as exists, for example, in the USA with the Planning Accreditation Board (PAB) guidelines, Poland (see Chap. 12, this volume) or the UK. Rather, in the 2000s Estonian higher education institutions (HEI) developed numerous degree programs in planning (Table 2) in an opportunistic manner. Alongside a dramatic increase in student numbers in higher education overall, the number of students enrolled in planning-related programs reached a peak in 2008 when over 800

students were enrolled in BSc/BA and 270 in MSc/MA programs across six universities. The growth was accompanied by the Bologna reform process, introducing a 3 + 2 year study scheme, restructuring courses and an overall Europeanization of higher education (Frank 2013).

As of 2015, altogether 18 ‘planning-related’ programs exist. As the higher education sector in Estonia is under-resourced and academics are pushed to prioritize research over teaching, little attention is given to curricula development and quality assurance. It has been argued that most planning programs are neither academically nor financially sustainable. HEIs have continued to teach what staff expertise allows but that may not be what is needed to prepare students for planning practice.

In general, different university profiles support the provision of specialized niche courses. For example, the University of Tartu focuses on regional planning and human geography, while the Estonian University of Life Sciences excels in landscape architecture, landscape planning and environmental impact assessment. The Estonian University of Arts provide courses with an architecture and urbanism focus, and Tallinn University of Technology specializes in landscape architecture, civil engineering and transport planning, and since 2013 also architecture and urban planning. Tallinn University has begun urban studies based on their research excellence in post-modern cultural geography. Thus, across all universities there are planning courses which would cover the entire spectrum from growth and urban management to planning and conservation, from neighborhood via city regions to national planning. Yet, the current provision and specializations of courses is unbalanced with a strong leaning towards environment and sustainability, which originates from science-oriented programs and path-dependence in academia. It also can be seen as a response to Europeanization in environmental affairs especially for EU-funded developments and a desire in capacity building in respect to conservation and heritage particularly in rural areas. The majority of environmental planning specialists gain expertise in environmental management and end up competing with the earth sciences graduates in an overcrowded labor market, while the skills gap in other planning topics remains.

Similar to other EU countries such as Spain, the 3-year BA degree in planning (Frank et al. 2014) does not satisfy the minimal professional requirements of

**Table 2** Planning-related programs in Estonia

	2000	2008	2015
Number of HEI	4	6	6
Diploma and applied	2	1	1
Bachelors programs	4	6 + 1 integrated	4
Master’s programs	4	8	6
PhD programs	2	4	2
Total	12	20	18
Students		>800 BSc/BA >270 MSc/MA	

practicing planners. Planning-related master’s programs have been criticized as planning content remains secondary with the exception of landscape architecture programs (Fig. 2). Even if present, the planning content is structured in unsystematic ways. In many programs core subjects such as planning theory and process are missing totally and law, urban management, and governance are taught by lecturers from other faculties with little reference to planning. A lack of practical training is also a problem. As a consequence, graduates are not ready to enter planning practice lacking both multidisciplinary as well specialized skills.

Due to the expansion of the past decades, the higher education system is under enormous financial duress, balancing quality and quantity of programs in a volatile student market, and changing didactics is an ongoing challenge for university leaders. In respect to planning, curricula development is constrained by various limitations and tension between long-term strategies and present day needs in planning education and practice as well at academia, where for example admission policy of universities gives preferences to ongoing programs rather than supporting new innovative schemes. Since 2013 the intake of students has been begun to decline substantially. Project-based uncoordinated action has been dominant also in further education and professional training.

In order to develop a strategy that would support the provision for high quality, comprehensive planning education in Estonia, a comparative analysis of European planning education trends, the above elucidated survey of planning practitioners and several information gathering missions to the Netherlands, Finland, Sweden, Slovenia and United States of America were organized. It is clearly noticeable that the communicative turn in planning theory has changed the professional code in many countries. Innes (1997) noted that the shift away from modernist, rational

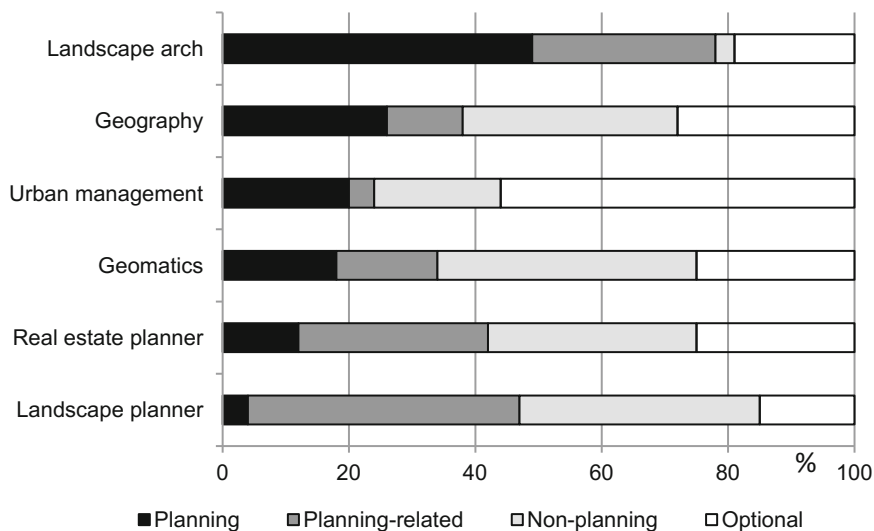


Fig. 2 Share of planning content in existing planning-related programs

planning towards the collaborative model initiated an emphasis on communicative skills in planning. Likewise, Schon (1987) argued for strong communicative skills and experiences to present alternative views, and problem solving situations. Faludi (1987) draws explicitly on pragmatist ideas to underline that planning work is always situated and contingent on specific situations. He thus advocates seeing planning as a methodology for exploring consequences prior to making choices, linked to Popperian ideas about hypothesis testing, leading to an idea of rationality as a method for justifying and legitimizing risky decisions. This relates to the profound challenges posed by climate change, refugee crises, economic uncertainties and the emergence of new technologies and big data. It is easy to enter into the planning discourse of wicked problems referring to the Cultural Theory approach by Hartmann (2012) which discusses clumsy solutions as a response to wicked planning problems. From the three emerging notions of planning, i.e., (1) planning as a physically oriented search for ideal territorial forms, (2) planning as a process-oriented discipline, and (3) planning as a multidisciplinary field, ultimately the latter was selected to inform the professional code and planning education criteria in Estonia.

The definition foresees that planning brings together experts with varied educational backgrounds such as architects, engineers, geographers, sociologists, economists, landscape architects, real estate developers, geomaticians, environmentalists, and others to tackle planning problems in a comprehensive and integrated manner. Politics and policy represent another important planning dimension. In practice, most planners work in one of several specializations that overlap with other professional fields. In survey responses, planners stressed the need to teach practical skills for day-to-day tasks in addition to conveying to students a contemporary ethical framework. This differs from academic preferences to focus on core knowledge and structured methodological approaches. Balancing the need for practice relevance and theoretical foundations has been a long standing issue in the education of professional fields (Edwards and Bates 2011). In the Estonian context, however, the primary issue is whether universities can modify their rather fragmented programs to offer a more rounded and less specialized education.

In the past years, the planning academy stimulated not only new thinking and innovation in the planning profession, but also attempted to set framework parameters for master programs in spatial planning. Conceptually, the discussion revolved around the following approaches:

- Generalist approach: serving broad range of professional futures;
- Specialist approach: following specific targeted knowledge areas and know-how (e.g., urban planning, environmental planning, GIS, and visualization);
- Compatibility with current planning scene: compromising between both universities academic capacity and planning sector needs.

In a series of programming workshops it was agreed that a multidisciplinary and problem-oriented spatial planning program should focus on establishing a sound link between environmental, engineering and social sciences and concepts. Such a

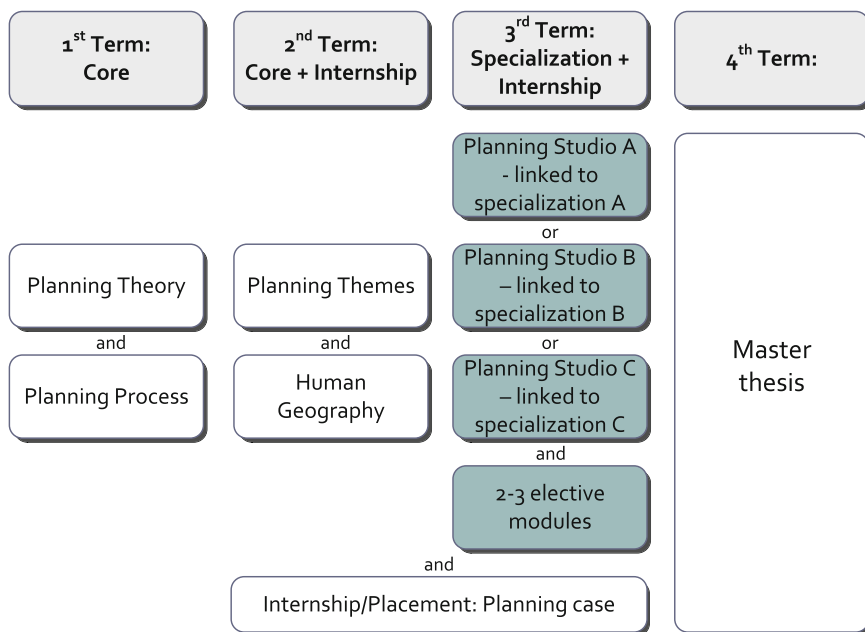
program would involve the interaction between scientific knowledge and applied planning policy leading to smart and sound decision-making. Graduates would have to be able to apply contemporary methods such as predictive modeling, socio-economic, and environmental analysis and be knowledgeable in legal framework and public relations. The program would have to reflect the dynamism and change of conditions under transition as experienced by the Estonian society since 1990s and should be research led by developing effective synergies between universities, research teams and teaching. Another cornerstone would be the quality and coherence of taught courses supported by staff development in respect to teaching and learning.

The proposed cross-university multidisciplinary program intends to offer students a thorough understanding of advanced theories and methodologies of urban and regional planning, with a special focus on urban regions and rural areas. Core elements of the subject are spatial planning and policy formulation, and the institutional aspects of spatial interventions. The program offers courses on decision-making processes and managing socioeconomic issues. Special attention is given to city regions and shrinking cities. The planning studio contains interdisciplinary group work and individual assignments drafting plans on interrelating spatial scales and issues with various temporal horizons allowing the evaluation of alternative scenarios. Professional skills and ethos are also covered in studio settings. In addition, students have the opportunity to be actively involved in planning projects in the most innovative planning companies during an internship period.

In particular, the program proposal (Fig. 3) consists of four core modules: planning theory, planning process, planning themes and human geography (15 ECTS each during 1st year). Planning themes encompasses courses on 'architecture/urban design', 'transport and infrastructure', 'environmental issues', and 'functional areas and services'. Studies are then continued with an internship (9 ECTS), planning studio (8 ECTS), elective courses (13 ECTS) and master's thesis (30 ECTS).

For the majority of planners who work in land use planning, the most important activity in terms of workflow is the preparation of comprehensive plans and the design of implementation mechanisms. The most important activity in terms of human resources and time, however, is the evaluation of development projects against plans and regulations. Planners have to rely on quantitative standards and qualitative criteria to assess the merits of proposals and their conformity with official policies. Planners also need to focus on process to open up opportunities for public learning and awareness. This assists in compensating for imbalances of power in society in terms of access to information, to forums of decision-making, and to decision makers. This advocates public discussions on territorial issues that are transparent, constructive, and respectful of differences. Developing a spatial planning program that addresses the perspectives of organizational patterns, comprehensiveness and practicality, as well as various possible teaching methods is complex. Obviously, some limitations remain in our understanding of the capacity of the spatial planning program to deliver on critical elements of an Estonian national spatial planning agenda.





**Fig. 3** Structure of ‘ideal’ spatial planning master’s program

First, in general, there is a need to better understand the needs and scope of the planning profession in Estonia. A variety of practicing planners as guest lecturers from outside the universities should be engaged to support the program with their knowledge and experience.

Second, all engaged university representatives should explore impacts and added-value for the present programs in their core subject (geography, environmental management, engineering, architecture, landscape architecture) and consider the ways in which these professions contribute to the education of the planning profession. The required knowledge and skills for planning include a heavy emphasis on strategic problem solving and on communicative action and an attempt at balancing academic and professional skills. The program tends to achieve goals of leadership, forward thinking and communication proficiency in the profession. Graduates can build their career as project managers for public and private projects at various planning scales.

Third, the program promotes innovative planning techniques and analytical methods. The rather competitive nature of the relationship between universities means stressing on strengths and admitting limitations in terms of academic resources and capacity. There are opportunities for mutual learning and to reflect on institutional capacities in an evolving cooperation. Still, progress of the planning profession in Estonia depends on cooperation between universities.

The program elaboration of the above described 2-year ‘ideal’ master program in spatial planning represented a test of academic and institutional collaboration of Estonia universities. Eventually the program failed to be adopted due to institutional barriers and academic competition within chairs, faculties and universities. As student intake has been declining due to demographic reasons, the major instrument remains further consolidation of present programs within universities instead of launching cross-university specialized programs. An annual conference series on planning “The Tartu planning conference” was launched as a key discussion platform underpinning progress in Estonian planning.

## Conclusion

In this chapter, key drivers of change in Estonian planning academia, current trends, developments and changes concerning the consolidation of planning education in relation to emerging planning practices, processes, and culture are discussed. Planning education can only be fully understood in the broader institutional and societal context of planning practice. In the context of Estonia, a small new European country this means coping with fast dynamic changes in economic conditions and a constant adjustments to the planning system. The Europeanization in the 2000s included changes to the planning system and planning practices in Estonia. Recent decades have manifested project-based housing, transport and infrastructure planning for EU co-funded projects. Despite the establishment of numerous planning-related courses, there is no single designated spatial planning program Estonia. Thus, there is a substantial shortage of skilled planners as planning-related degree programs provide merely a fragmented and disconnected set of skills and knowledge.

There are 18 planning-related programs at six universities in Estonia. Planning programs exist in a variety of institutional contexts leading to considerable differences in how they emphasize research and teaching. The autonomy of universities is high and change can only be initiated with strong external signals and influences from the planning sector. So far, Estonia has demonstrated a specialization of planning education based on a competitiveness model instead of the promotion of a cross-university generalist and interdisciplinary approach. Universities are accredited by broader areas of subjects such as environmental management or architecture and construction, not for profession-oriented programs. The current fragmented provision of planning programs derives from opportunistic decisions by universities.

Moreover, there are concerns over the quality and number of students enrolling on quasi-planning programs raising uncertainties about the independence and maturity of the planning profession in a small marketplace. While in 2008, 800 students were enrolled in planning-related degree programs, the recent decline in intake could have significant consequences for some universities, particularly those without a strong research profile. A major shift in professional advancement is

establishing a professional code and certification for spatial planners, which was launched in 2014. The Estonian Association of Spatial Planners has been awarded the status of a certification agency for accrediting planning practitioners.

A better understanding of the challenges facing the academy as well as recognizing the trends in planning practice and territorial governance is critical to mapping out the future for planning education and rejuvenating the multidisciplinary profession. Planners in Estonia often play several roles in parallel—likely a function of the country’s size. Thus, they need universal knowledge backgrounds and a balanced skill set. The proposed collaborative university consortium offering a joint program in spatial planning would be a way forward to overcome resource issues and offer a complementary rich set of planning courses while also creating opportunities for collaborative research in the interstices between planning and other subjects. Having a broad professional coalition and engaging universities, students, and practitioners in the design of planning education curricula could lead to a unique profile and identity for the program and its graduates. However, academic pragmatism tells the opposite story, with cosmetic inserts of planning path-dependence on multiple planning-related programs.

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# Chapter 14

## Planning Education in Bangladesh

M. Shafiq Ur Rahman

**Abstract** Planning education in Bangladesh is relatively speaking a recent development and provision is very limited. Only seven public universities have planning schools. While all provide undergraduate programs, only three offer postgraduate programs including opportunities to study for a PhD. The curricula of these planning programs are all very similar with only slight variations between the different institutions. Bangladesh's undergraduate programs in planning are comparatively good and offer standards that are similar to planning schools in Europe or North America; however, postgraduate and research degrees are struggling. With a few exceptions, faculty members of planning schools hold Master degrees; however, less than half of faculty members currently hold PhD which are mainly from universities in Europe, Japan, and the USA. Thence, a large portion of teachers is presently on leave for higher studies or research creating a severe shortage of qualified faculty. As of 2016, about 1,950 planners had graduated from planning schools in Bangladesh. Even for this relatively low number of graduates, the job market is saturated and many graduate planners are working in non-planning fields or have migrated abroad. This is clearly an underutilization of resources.

**Keywords** Curricula · Interdisciplinary · Urban and Regional Planning (URP) · Resources

### Introduction

Bangladesh, South Asia, is one of the poorest countries of the world. Next to city states such as Singapore or Monaco and islands like Bermuda or Malta, the country features one of the highest population densities in the world with over 1,200 persons per square km as of 2013 (World Bank 2014). As a result, resources, particularly land,

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are precious in Bangladesh and coordinated, efficient planning of urban and regional development is absolutely essential. The necessity of planning<sup>1</sup> education in Bangladesh arises out of the need for development—with increasing and often conflicting demands on land, and the growing importance of ensuring that land is put to the use to which it is best suited (Rahman 1990). Over the past three decades, the government has therefore initiated the establishment of planning schools at several of Bangladesh's universities to grow the country's planning capacities and planning profession.

In this chapter, these capacity building efforts will be described and examined. First, a broad overview of current planning education programs in Bangladesh is presented outlining: curricula foci (e.g., what topics or subject matters are covered), teaching methods, staff qualifications and institutional characteristics (strengths and weaknesses) of planning schools in Bangladesh. Second, based on an email survey of destinations of Bangladesh's planning graduates, employment opportunities, and planning graduates' satisfaction with their degree, these courses will be assessed.

## Current Provision and Planning Schools

The creation of planning education degrees at universities in Bangladesh is a relative recent development. One exception is the postgraduate Master of Urban and Regional Planning (MURP) at Bangladesh University of Engineering and Technology (BUET) which was opened in 1969.<sup>2</sup> The Department of Urban and Regional Planning (URP) at BUET is a subunit of the Faculty of Architecture and Planning. The prerequisite for admission into the 2-year interdisciplinary MURP program was either graduation in Engineering, Architecture or a master's degree in Economics, Sociology, Geography, Psychology, Statistics, and Mathematics. Interest was rather poor, however, and over 27 years (until 1995, when finally a Bachelor degree was established in the same department), this program produced only 136 planners. BUET initiated a joint MURP program in 1975 with Sheffield University's Department of Town Planning in the United Kingdom and produced 19 planners within 3 years; another joint postgraduate diploma program in planning was initiated with the Asian Institute of Technology (AIT), Bangkok in 1988 to provide in-service training to about 32 technocrats within 5 years (Rahman 1990).

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<sup>1</sup>Planning in this chapter refers to the professional activity related to development planning as well as planning for sociophysical environment of urban/rural/regional areas; it includes different specialized branches of spatial planning such as town and country planning, regional planning, environmental planning.

<sup>2</sup>Established as the Department of Physical Planning in 1962 (and subsequently changed to the Department of Urban and Regional Planning in 1976), but the academic program began in 1969. Initially the department offered the Master of Physical Planning (MPP) but later changed to the MURP degree and subsequently the syllabus has been changed to meet the changing needs and the prevailing conditions of the country (Rahman 1990).

Even in 2016, provision of planning education in Bangladesh is still very limited. While there are more than 30 public universities, over 90 private universities and several hundred colleges of higher education, only seven public universities have a planning department or school (see Table 1). These are Khulna University (KU), Bangladesh University of Engineering and Technology (BUET), Jahangirnagar University (JU), Chittagong University of Engineering and Technology (CUET), Khulna University of Engineering and Technology (KUET), Rajshahi University of Engineering and Technology (RUET), and Pabna University of Science and Technology (PUST). Among them, only in Khulna University it is called Urban and Rural Planning Discipline (URPD), in all other six universities it is referred to as Department of Urban and Regional Planning (DURP). It is noteworthy that the distinction between ‘rural’ and ‘region’ has little meaning as course contents are almost identical. There is also no functional difference between a Department and a Discipline—it is just a matter of choice of the university. Across these institutions, there are three Master programs (MURP) and seven Bachelor programs (BURP), the first of which was established in 1991 at Khulna University.

**Table 1** Planning schools in Bangladesh

University	Department/School	Programs available & year of introduction
Bangladesh University of Engineering and Technology (BUET), Dhaka	Department of Urban and Regional Planning (DURP)	BURP, 1995 MURP, 1969
Khulna University (KU), Khulna	Urban and Rural Planning Discipline (URPD)	BURP, 1991 MURP, 2005
Jahangirnagar University (JU), Dhaka	Department of Urban and Regional Planning (DURP)	BURP, 1999 MURP, 2009
Chittagong University of Engineering and Technology (CUET), Chittagong	Department of Urban and Regional Planning (DURP)	BURP, 2009
Khulna University of Engineering and Technology (KUET), Khulna	Department of Urban and Regional Planning (DURP)	BURP, 2010
Rajshahi University of Engineering and Technology (RUET), Rajshahi	Department of Urban and Regional Planning (DURP)	BURP, 2011
Pabna University of Science and Technology (PUST), Pabna	Department of Urban and Regional Planning (DURP); initially was Department of Geography and Environment and Urban Planning	BURP, 2015 (initially was BSc in Geography and Environment and Urban Planning, 2012)

Khulna University (KU) was the first institution to introduce a bachelor level planning course—Bachelor of Urban and Rural Planning (BURP)—in Bangladesh, within the School of Science Engineering and Technology (SSET) at the time the university was established in 1991. Much support was provided by Melbourne University (Australia), in particular, for the creation of a state-of-the-art Geographic Information Systems (GIS) lab. In 2005, KU also started a Master in Urban and Rural Planning (MURP) program. Jahangirnagar University (JU) established its Department of Urban and Regional Planning (DURP) under the Faculty of Social Science and introduced an undergraduate program in planning—Bachelor of Urban and Regional Planning (BURP)—in 1999. Since 2009, JU began offering a postgraduate program in planning—Master of Urban and Regional Planning (MURP)—as well, but this is only open to students with a BURP degree from JU. Additional bachelor degree programs were established at CUET, KUET and RUET in 2009, 2010 and 2011, respectively. Beyond these, Pabna University of Science and Technology (PUST) introduced an undergraduate (BSc) degree in Geography, Environment, and Urban Planning in 2012. However, in 2015 the Department of Geography, Environment, and Urban Planning in PUST was restructured and divided into two different departments offering the following two programs: BURP; and Geography and Environment. Currently, these are the institutions offering urban and regional planning degrees. Beyond these, the Department of Geography at Dhaka University (DU) offers also a few courses on planning. Private institutions so far have not entered the planning education market but three or four offer some degrees in subjects associated with planning such as tourism planning, environmental management, development studies, disaster management, and land management.

Planning schools do offer PhD studies only in BUET, JU and KU; and with limited capacities (Rahman 2010). However, the Department of Geography and Environment at JU and Dhaka University, as well as the Institute of Bangladesh Studies (IBS) at Rajshahi University (RU) offer MPhil and PhD studies through research on planning related areas.

## **Program Characteristics and Teaching Environment**

Planning curricula at all planning schools in Bangladesh are very similar. This is mainly because when a particular institution wanted to establish a new planning school they:

- communicated with existing planning schools and reviewed the program curricula;
- included senior faculty members of the existing planning schools, as well as the representatives from the Bangladesh Institute of Planners (BIP), the legitimate professional body of planners in Bangladesh, into their curriculum development committee;
- invited and ensured the presence of faculty members from other planning schools in each meeting of the course and curriculum development committee.



While there are no specific guidelines or guidance from the government on the content of a planning education courses, the BIP has produced a brief outline of accreditation criteria for graduate planners.

### ***Bachelor Curricula (BURP)***

Bachelor programs require 4 years (8 semesters) of study equating to 160–180 credit hours (CH). Each course or module is either three CH (full unit or theoretical course), or 2 CH (half unit or practical course). Intake of students for bachelor degrees is annually and average class size is about 30.

As planning is a multidisciplinary field, programs cover many different dimensions—generally at introductory level. The first year covers foundations: usually a course in introduction or history of URP, geography for planners, subject-specific English, mathematics, computer applications, cartography, etc. In first to second years, students also have units on urban pattern, economics, statistics, construction materials and structural engineering, surveying, and database management. Basic planning related courses such as urban planning, transportation, environment, housing, urban design, rural development, regional planning, project management, tourism, disaster studies, GIS, etc., begin from the second year of study while the more detailed and advanced level of these planning courses are in third year (Rahman 2010). Policy oriented courses (i.e., planning law, local government, municipal finance, etc.) and planning dissertations are usually offered in the final year.

Though the curricula in different planning schools of Bangladesh are similar, there is a slight variation in the program (both BURP and MURP) of different institutions. For instance, the curriculum at BUET is more weighted toward engineering and physical planning, whereas at KU there is a focus on modern techniques and technologies supporting planning (i.e., GIS, Remote Sensing) and governance. Programs at JU provide greater focus on social science but not any particular direction of focus. This differentiation is likely due to the meso-environment of the planning school and type of institution they are part of. As the BUET exclusively provides education in engineering subjects, their focus of the BURP program is toward physical planning. Given this fact, the BURP programs of CUET, KUET, and RUET are also directed toward physical planning and engineering as in BUET.

### ***Master Curricula (MURP)***

Master programs for planning vary in duration (2, 3, or 4 semesters) depending on the institution and the background of the student. At Jahangirnagar University (JU) it requires 12 months of study (two semesters) as it is now only available to JU graduates having a BURP degree. Until 2013, MURP at JU was 18 months duration (three semesters). The MURP program at Khulna University (KU) is 18 months duration (three semesters) and open for both planning and non-planning

graduates. By contrast, the MURP program at BUET, which is open for either planning graduates or non-planning graduates, consists of two variants: a three-semester variant for planning (BURP) graduates and a four-semester variant is for non-planning graduates. The first semester for the non-planning graduates provides students a foundation in planning.

Unlike in the United Kingdom, there are no specialist master degrees which focus on particular specialisms such as urban design or transport for the degree as a whole. However, students do generally can select between optional courses during the second semester. For example, students at JU can select from options in regional planning, transport planning, and GIS; at KU options are offered in urban or rural planning, housing, environment, and real estate. At BUET optional courses at the time of writing were mainly housing focused. This limited range derives from a spate of retirements of senior academics in the last few years but it is hoped that this will change in future with new faculty being hired.

Overall there is little interest in MURP programs in Bangladesh. The job market is weak and unable to offer suitable positions for planning graduates and a master degree provides no advantage; thus, no incentives exist to obtain a master degree or progress to doctoral studies. Many master students attend classes only irregularly and prolong their studentship giving priority to their jobs. Moreover, as (Rahman 1990) mentioned, there was a very high dropout rate from the MURP program at BUET. Consequently, only a very small number completed their MURP degrees. By 2016 only 26 students had received a MURP degree from KU and during the last 45 years only about 170 received a MURP degree from BUET. However, by 2016 (within 7 years of introducing the MURP program) around 150 students have received a MURP degree from JU. As the duration of the MURP program at JU is shorter, students can graduate within 12 months, and this is probably the main reason why a large number of students received a MURP degree from JU in a short period of time.

### ***Research Program: MPhil/PhD***

Currently, only the planning schools at BUET, JU and KU provide research degrees such as MPhil and PhD. Planning schools at CUET, KUET, RUET, and PUST have no provision yet for postgraduate or research program. Until now BUET awarded one PhD (six others are in progress) whilst JU awarded one PhD (two others in progress) in planning. KU awarded one PhD and one MPhil whilst four PhD and three MPhil in planning are in progress.

### ***Teaching Staff and Qualifications***

Four categories of faculty member exist at Bangladesh's universities: Professor, Associate Professor, Assistant Professor, and Lecturer; where the entry level post is

Lecturer. Planning departments all have a range of faculty members at each rank, as well as some support staff (i.e., administrative assistants, computer lab technicians, seminar librarians, and clerks). However, less than half of the faculty members currently involved in providing planning education hold doctoral (PhD) degrees. For example, in the Department of URP at BUET only eight teachers of the total 21 have a PhD whilst KU and JU, which each have 20 academics, the figure is eleven and nine, respectively (DURP-BUET 2016; DURP-JU 2016; URPD-KU 2016). The situation is typically exacerbated in newer institutions such as the Department of URP at CUET, KUET, RUET, and PUST where few or no faculty members hold a PhD (see Table 2).

However, a number of faculty members are now enrolled in PhD programs: three of BUET (all enrolled in USA); three of JU (in Australia, Hong Kong, and Bangladesh); two of CUET (in USA and Bangladesh); four of KUET (in Australia, UK and USA). As a considerable portion of the teachers are now on leave in abroad pursuing their PhD or MS, there is a severe shortage of qualified faculty members. Furthermore, there is still considerable dependency for knowledge development from developed countries.

So far, with the exception of RUET and PUST, faculty members of planning schools hold MS or PhDs mainly from universities in North America, Europe, Japan and Australia. For instance, the faculty members who obtained PhDs from abroad are:

**Table 2** Teaching staff and their qualifications in planning schools of Bangladesh (sourced from discussions with the faculty members and websites of the relevant departments, 2016)

Department, Institute	Total number of teaching staff (prof + assoc. prof + asst. prof + lecturer)	PhD Holders (from Abroad + from Bangladesh)	Currently enrolled in PhD (in Abroad + in Bangladesh)	Master (MS) <sup>a</sup> degree (from Abroad + from Bangladesh)	No MS or PhD
URPD, KU	20 (7 + 5+6 + 2)	11 (7 + 4)	1 (1 + 0)	17 (12 + 5)	3
DURP, BUET	21 (6 + 1+6 + 8)	8 (8 + 0)	3 (3 + 0)	14 (6 + 8)	7
DURP, JU	20 (4 + 6+10 + 0)	9 (7 + 2)	3 (2 + 1)	20 (9 + 11)	0
DURP, CUET	14 (1 <sup>b</sup> + 0+9 + 4)	0 (0 + 0)	2 (2 + 0)	9 (6 + 3)	4
DURP, KUET	11 (1 <sup>b</sup> + 0+6 + 4)	2 (2 + 0)	4 (3 + 1)	8 (4 + 4)	2
DURP, RUET	6 (1 <sup>b</sup> + 0+1 + 4)	0 (0 + 0)	0 (0 + 0)	1 (1 + 0)	4
DURP, PUST	2 (0 + 0+1 + 1)	0 (0 + 0)	0 (0 + 0)	0 (0 + 0)	2 <sup>c</sup>

<sup>a</sup>few faculty members have PhD without having MS whilst most have both MS and PhD

<sup>b</sup>from another department in deputation

<sup>c</sup>one pursuing MPhil at Khulna University

- in KU it is four from UK, two from Japan and one from Australia (URPD-KU 2016);
- in BUET it is four from Japan, two from UK, one from USA and one from Australia (DURP-BUET 2016);
- in JU it is three from UK, two from Hong Kong, one from Japan and one from Australia (DURP-JU 2016).

Teachers who have obtained masters (MS) degree:

- in CUET it is three from Bangladesh, two from the Netherlands, two from Germany, one from Thailand and one from USA;
- in KUET it is four from Bangladesh, two from Hong Kong, one from Italy and one from Germany.

As the faculty members are mostly trained in the global North, this influences curriculum content and may stifle the development of planning models and concepts suitable to the culture and context of Bangladesh. Nevertheless, curriculum content of all planning schools considers the socioeconomic situation as well as cultural and political contexts of Bangladesh. For instance, in CUET (which is located in the mountainous areas of the South) has a module on Hilly Region Planning and this is not available in the curriculum of any other planning school in Bangladesh.

### ***Teaching Methods***

The teaching methods employed by Bangladesh's planning schools are modern. Both class room teaching and hands-on practical sessions on relevant topics (e.g., planning studio, research seminar, GIS) are used. Lectures in advanced level courses can include considerable amounts of group discussion and participation from students. There is a close relationship between theory and practical courses in the planning program. In theory courses, students are introduced to ideas and concepts, while in practice oriented courses students have to apply their learning to a specific planning problem in a spatial or socioeconomic context. Thus, students have to prepare a lot of reports or assignments for each unit of their course.

### ***Teaching Environment***

In theory there is reasonable capacity for student intake at each institution for both undergraduate and postgraduate level—about 30 to 40 students per annum. Only the MURP program in BUET could afford intakes twice a year; the department can make their own decisions on the frequency of intake and typically make these based on demand.

Although most universities in Bangladesh suffer from considerable resource constraints and are generally unable to provide computer and internet facilities and online resources to its students and teachers, at least two of the planning schools have sufficient resources: BUET and KU. At BUET, for example, the department was given its own four-storied building about 7 years ago. Thus, there is no scarcity of teaching rooms or floor space and there is also good access to resources like books, journals or lab facility. However, to date there is no faculty member with a dedicated research agenda and expertise in GIS or transport. Similar to BUET, KU also has sufficient space and modern facilities. Their GIS and remote sensing (RS) lab is of a very high standard, comparable with that at any university in USA or Europe. There are also a number of faculty members with GIS expertise while some others have advanced knowledge in other relevant and topical areas such as governance or disaster management.

The teaching environment is less favorable at JU or CUET, where planning departments suffer from limited floor space, poor GIS lab facilities and a lack of library resources. Similarly, the URP departments at KUET and RUET suffer from limited resources. There is also an acute shortage of resources at PUST. Often the resources are limited or inadequate at newly established universities or planning schools because generally in Bangladesh a new school/department is established first (with the university's existing infrastructure) and then required infrastructure and resources for the newly established school are provided year by year. Therefore, it is anticipated that these problems and shortcomings might be resolved in future, when the department will mature in respect to number of faculty members and students.

## **Graduate Destinations, Prospects, and Student Satisfaction**

To date (end of 2016) about 1,950 planners have graduated from planning schools in Bangladesh, of which less than 18% (around 350) obtained a master degree. The majority of students received their undergraduate degree from one of three institutions: KU (about 670 graduates), BUET (about 450 graduates), and JU (about 350 graduates). Recently, the first two batches of planning students graduated from CUET and KUET (around 50 and 90 graduates, respectively) whilst the cohort of the first batch from RUET as well as from PUST (each institution has around 30 students) will be graduating by early 2017. Informal conversations by the author, with the members of the Executive Committee of BIP corroborated the notion that planning students first and foremost focus on the Bachelor which is sufficient for entry into the job market. A Bachelor degree is also sufficient to become a member of the BIP.

To better understand the shape of the planning profession in Bangladesh, job prospects, and the dynamics and quality of the planning education provision

through Bangladesh's programs, the author conducted a survey among the BURP graduates. This took the form of an email survey in 2010 which was sent to the group email address of the alumni association of planners of KU, BUET, and JU. There were no alumni from CUET, KUET, and RUET in 2010 as these institutions just started their BURP programs either in 2009 or after.

Unsurprisingly, the response rate was rather low with only 26 valid replies (about 2.5% of the total); the majority (15 responses) were from KU graduates, eight from BUET graduates and only three from JU graduates. The majority of the responses were from past graduates now living in other countries for work or continued studies. As responses received do not reflect a representative subset of the population, only a cursory qualitative analysis was possible. Nevertheless, the emerging picture from this review of data is painting a worrying picture.

Respondents to the survey indicated professional experience of 1 to 14 years with the majority of them (about 64%) having worked between 5 and 8 years. A significant portion of the respondents had already completed a MURP degree or postgraduate degree in other planning related fields, either from BUET or abroad. Those that completed advanced degrees from abroad had focused on a specialization in planning (i.e. GIS, Project Management, Urban Development, Transportation, Regional Planning, etc.) mainly in the USA, Canada, UK, Germany, and Australia. Many of those that went to Australia, UK, USA, and Canada for studies settled there permanently to work; which represents a considerable brain drain. However, the limited domestic job market in Bangladesh is a considerable push factor, as it currently cannot absorb all planning graduates. With Germany, Belgium, Netherlands, and Japan offering attractive scholarships, a number of respondents were also living there to complete higher degrees. In addition, some planning graduates are also living in UAE and Oman while a few have returned to their native country of Nepal after completing their BURP program in KU.

### ***Employment Prospects for Planners and Career Progression***

In Bangladesh, similar to other developing countries, jobs overall and planning jobs in the public sector in particular are very limited. However, culturally the majority of the people in Bangladesh perceive public sector jobs as lucrative. Almost all the local government institutions in Bangladesh have fiscal problems and do not provide planning posts. A discussion with the President of BIP revealed that in 2005 around 40 planners and again in 2009–2010 about 32 planners started their planning career in local government (e.g., municipality). About 15 planners started their career in several development authorities (e.g., the capital development authority (RAJUK), Khulna Development Authority (KDA), Urban Development Directorate (UDD)) in or before 2009. Again, seven planners started their planning career in

UDD in 2013 and 17 planners started their planning career in RAJUK in 2015. The only other opportunities in the public sector are teaching positions at universities.

Hence, the majority of new planning graduates start work today in the private or non-profit sector (e.g. with NGOs and international aid organizations). This scenario was different in 1980s; as Rahman (1990) stated, though a considerable number of planning graduates were employed in the private sector, most were employed in government and semi-government organizations. In fact, at present the private sector is where most graduates commence their professional careers upon graduation. Those that do not find work after graduation, often opt to continue studies on a Master program while planners graduated from KU in particular also take up careers as GIS technician or cartographer in private companies.

Survey responses indicate that 5 years after graduation, planners are usually established in their careers working in a variety of fields (both planning and non-planning related). Reported non-planning related positions include working as police officer, banker, politician, project manager. A small number of respondents decided—after working for a number of years—to pursue higher degrees abroad (Master or PhD) particularly if they worked in teaching or research related positions.

### ***Job Satisfaction***

Interestingly, the majority of respondents stated that they are satisfied in their jobs, particularly those who held some of the rare planning posts. Perhaps those that are dissatisfied did not respond. Job satisfaction of the respondents was found to be higher 5 years after graduation. It seems some of those that started working as monitoring and evaluation (M&E) officers became happier in their posts as they moved into more senior administrative positions. Overall, lack of job satisfaction was correlated to positions with no or very limited prospects of promotion, e.g., when working as GIS technician or in local government in some second or third tier city. Yet, this is likely to be true for any field.

### ***Evaluation of Planning Curricula***

Surprisingly, with a few exceptions almost all of the respondents stated that they were very satisfied with their undergraduate planning studies experience, although a subset reported concerns about the lack of good job opportunities in the planning field after graduation. The majority considered planning curricula in Bangladesh to be modern and up to date. This is likely a quite accurate assessment as the BURP degrees have allowed a fair number of graduates from Bangladesh to either successfully obtain employment overseas or study for research degrees at European, North American, and Australian institutions.

Nevertheless, on the basis of their professional experience, respondents also voiced some suggestions for future improvements of planning education curricula in Bangladesh. Suggestions tended to relate to certain weaknesses in existing programs. For example, graduates of JU proposed to provide more emphasis on technical courses like GIS, Remote Sensing (RS), or statistical analysis software (e.g. SPSS) and their practical application in planning contexts. They also commented on the shortcomings of resources and facilities at JU. On the other hand, graduates of BUET mentioned that teaching method and style, particularly for the practical courses, should be changed. There is a need to improve technical (computer application) skills, and courses should be in the context of the planning problems faced by Bangladesh. They suggested that there is a need for better instruction as well as courses in research skills (i.e., research methods, seminar presentation, workshops) and qualitative research. Furthermore, philosophy or sociology should be incorporated in planning to have a bridge between physical planning and social issues.

Graduates of KU mentioned, for example, a need to update the contents of some courses (i.e., planning law) and the need to incorporate contemporary issues. Some of them suggested to have more advanced course on various areas of planning such as population studies, statistics, planning ethics, livable cities, community planning, industrial planning, disaster management, aid management, M&E, public health, dispute resolution and negotiation.

In Bangladesh there are professional disputes among planners and civil engineers because most of the planning positions, particularly in local government, are occupied by civil engineers and dominated by them. So, some of the planning graduates mentioned there should be one course about professional disputes so that planners get some training how to solve professional disputes. Some of them suggested having a specialization (i.e., housing, transport, urban planning, environment, GIS, etc.) in the fourth year and a longer internship would be of benefit. At present internships are typically 6 to 8 weeks. It is also worth mentioning that only at KU and JU there is an internship in the fourth year of the BURP program. Finally, unsurprisingly, respondents suggested that the government should increase funding for university in general so better resources could be provided (i.e., latest updates of GIS technology and internet should be available for students). It was further suggested that the faculty members should have experience of professional planning practice and there should be a provision of guest lecturing (people from industry should be invited to give lectures at planning schools).

## **Concluding Remarks**

Bangladesh's few undergraduate degree programs in planning are comparatively good and offer standards that are similar to planning schools in Europe, North America and Australia. However, postgraduate degrees (i.e., masters), and



particularly PhD studies and research are struggling. This is mostly because of resource constraints and the government's higher education policy.

Even though the country theoretically requires experts with planning qualifications to support the country's sustainable development and efficient use of scarce resources, the government to date has not created sufficient jobs for planners in local authorities and cities. Consequently, even for the relatively low numbers of graduates the job market is saturated and many graduate planners are working in non-planning fields or migrating abroad. This is clearly an underutilization of resources. The environment and policies in Bangladesh do not encourage or promote research and development in planning. Moreover, there is no connection between academic institutions and industry or agencies in Bangladesh. One possibility for addressing the problem of poor research capacity and lack of funding would be to strengthen the links between academic institutions and industry. Appropriate support from donor agencies and universities in the Global North could help significantly toward this. Collaborations and joint programs with foreign universities to exchange students and teachers may help to promote research activities in Bangladesh. There could also be joint projects undertaken between planning schools in Bangladesh and those in the Global North.

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# Chapter 15

## The Roles of Planning Education in the Decentralization and Democratization Era: Lessons from Indonesia

**Bakti Setiawan**

**Abstract** This chapter reviews the development of planning education and planning practices in Indonesia. It shows that planning education in Indonesia has tended to serve the needs of government planning practices. In doing so, it has failed to cast a critical eye over government practices and the state of society. The author recommends that planning educators adopt a more critical engagement with the state, enabling planning education in Indonesia to provide the necessary knowledge and training for the betterment of planning ideas and practices in Indonesia. In addition, the chapter also underscores the need for the planning education community to pursue reform for the betterment and enrichment of planning education in Indonesia.

**Keywords** Planning education · Indonesia · Democratization · Decentralization

### Introduction

This chapter discusses the development of planning education and planning practices in Indonesia and how they relate to emerging ideas and practices of the country, especially since independence in 1945. It argues that the development of planning education in Indonesia has tended to serve the needs of government planning practices and, as a result, has been trapped into a statist approach. In the current era of decentralization and democratization, there is a crucial need to reform planning education in Indonesia to be more inclusive and sensitive to the needs of civil society and communities. To explore this issue, the chapter is divided into several parts beginning with a brief overview of the history of planning practices in Indonesia. It then

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describes the recent development of planning education in Indonesia leading to the establishment of the Indonesian Planning Schools Association (*Asosiasi Sekolah Perencanaan Indonesia* or ASPI). Third, the role of planning education in Indonesia's development will be critically reviewed and it is argued that planning education in Indonesia should reflect the changing circumstances in society around the theme of reform. It concludes with a proposed practical agenda for the betterment and enrichment of planning education in Indonesia.

## **Brief History of Planning Practices in Indonesia**

Although so-called modern Western planning practices started during the Dutch administration in the early 1800s, traditional planning practices had already been exercised by local rulers or kingdoms in Indonesia for centuries. As has been documented by several studies, many local kingdoms in this archipelago planned cities and settlements based on both cosmological as well as rational principles. One famous example is the case of the Majapahit Kingdom, which ruled from 1293 to 1510s, and its carefully planned capital city in East Java (Vickers et al. 2014).<sup>1</sup> Other examples include cities in Bali, particularly Karangasem city, the development of which was influenced by urban planning principles from the Majapahit Kingdom (Budihardjo 1986; Geertz 1980).

The Dutch administration era in the early 1800s introduced modern planning practices in settlements throughout the country (Nas 1986). This western-modern urban planning system was implemented in cities that were used by the Dutch administration to rule the country. Some may argue that this planning was merely for the interests of the Dutch administration and its people. In fact, however, it provided the fundamental urban pattern that remains in place today, at least in the urban centers. Important cities on Java such as Jakarta, Bandung, Yogyakarta, Magelang, and Malang still enjoy some important elements inherited from the Dutch intervention, particularly in the form of urban parks, basic infrastructures systems, and colonial-heritage buildings.

After Indonesian independence in 1945, the influence of "Western" urban planning practices remained significant for at least two decades, due to the fact that during this time Indonesia's government and society were trapped in unstable political and social conditions. It is true that the newly created Indonesian state made some changes to Indonesian cities, but these were limited to adding some monuments as a means to promote national identity. Coupled with a lack of human resources, planning practices in that era were not extensive. This period, the so-called 'stagnant era' brought, nevertheless, one notable accomplishment, namely

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<sup>1</sup>According to Carey, Majapahit is important as monument of traditional urban planning in Indonesia as it embodies in its urban archaeology the transition from Java's Hindu-Javanese past to the modern Islamic society of present-day Indonesia (Carey 2014).

the establishment of the first planning school in Indonesia at the Bandung Institute of Technology (ITB) in 1959 supported by United Nations and United States development aid efforts.

The beginning of the “New Order” government of Suharto in 1965 marked the beginning of different planning practices. Under the Suharto regime, the country enthusiastically embraced the rational comprehensive planning approach in the form of long-term national development planning schemes. This approach was undertaken to move the country from developing nation into developed nation status. Supported by technocrats who graduated from American universities, the process of transitioning Indonesia from a developing country to a developed one rested on a top-down planning process. One key component was the five year national development planning schemes (the REPELITA) prepared by central government planners. The other was institutionalization of planning exercised through planning regulations administered through planning institutions, both at central and local levels, but managed by the central government. Technocratic planning was the approach and the expectation for planning educators was that planning education curricula were to prepare graduates for such planning tasks accordingly. Supported by significant financial capacity, mostly from oil revenues and strong political support through the Suharto dictatorship, development planning practices made headway.

During that era, many planning schools were established in several parts of Indonesia, while their graduates also easily entered the market. In particular, government institutions hired planners both at the central and local levels. Planning consultants and professional planners also enjoyed this era, when many planning documents and projects were produced. According to ASPI records, at the end of that era in 1998, 30 planning schools had been established in Indonesia. As will be further described in the following section, the formation of the Indonesian Planning Schools Association (ASPI) in 2001 can be seen as a side effect of this development period. This era, as some planners say, is best termed as the glory days of planning practices and the profession in Indonesia. The term glory should indeed be critically read, as from another angle the era was not really having a significant impact on improving the lives of millions of ordinary Indonesians.

Following the demise of the New Order government in 1998, planning practices and education in Indonesia entered a new era of reformation and decentralization which introduced new challenges (Firman 2002). After three decades of centralist governance and planning practices, people suddenly were required to deal with new ways to approach governance and associated planning processes. Democratization, decentralization and local autonomy, perpetuated by more open global markets and capital flows, forced Indonesia to find new ways and alternatives to assist its people and environment to achieve better conditions.

It is in this era that planning education in Indonesia started to question its traditional roles and responsibilities. The establishment of the Indonesian Planning Schools Association or ‘*Asosiasi Sekolah Perencanaan Indonesia*’ (ASPI) in 2001 can be seen from two perspectives. For one, the establishment of ASPI can be seen as the logical outcome of the advances in planning practices during the New Order

**Table 1** Brief history of planning practices and education in Indonesia

Periods	Planning practices	Planning model	Planning education
Pre-colonial	Traditional planning	Cosmological order; traditional urban pattern (Bali)	Non existent
Colonial 18th to early 20th	Introduction of modern planning; garden city ideas	Utopian planning; master plan	Dutch planners/ Civil engineering
Independence 1945–1965	Transition from Dutch system; lack of professional planners	Master plan, blueprint	1959: First planning school in Indonesia (Planologi ITB)
New Order 1965–1998	Five years planning; master plan; detail planning; land use	Social reform; policy analysis; rationale comprehensive planning; strategic planning; policy analysis	Planners = architects the emerging of planning schools around Indonesia: looking for identity and recognition
Reform 1998–now Decentralization, Democratization Local autonomy	Mixed: long-term planning; strategic planning; master plan; zoning; community-based planning; advocacy; empowerment	Policy analysis social mobilization; social learning; collaborative planning	2001: ASPI: establishment and consolidation—maturity. The maturity of Planning education in Indonesia (PEI) and looking for a better role and position

era. From the outset, its members advanced the orthodoxy of the rational planning model. Yet, conversely, because of changing circumstances in Indonesia, ASPI was established to respond to the reform and democratization era that brought a desire for change in Indonesia. This unique transition situation influenced the path that ASPI would follow as it matured as a planning education network. Table 1 summarizes the five phases of the development of planning practices and education in Indonesia. Although it is possible to identify and label distinct phases, it should be noted that there was a degree of cross-fertilization between phases. The main point is that the development of planning education in Indonesia cannot be separated from the history of planning practice.

## The History of Planning Education and the Establishment of Indonesia Planning School Association/ASPI

As has been stated earlier, the foundation of planning education in Indonesia was laid with the creation of the first planning school in Indonesia, called *Planologi* in 1959 at the Bandung Institute of Technology (ITB). As documented by several

authors (Oetomo 2003; Winarso 2007), the school was initiated and funded by the Ministry of Public Works, with assistance from the United Nations and Harvard University (see Chap. 5 for further background). The idea of having a planning school was to respond to the high demand for professional planners needed to tackle the many problems faced by Indonesian cities. Since its beginnings, the planning school at ITB (which was then followed by the establishment of other planning schools in many parts of Indonesia) focused principally on the spatial aspects of urban planning and development, given the fact that the problems faced at that time were physical defects, particularly the provision of basic urban infrastructure and housing. It is also important to note that this approach resembled the Western planning model of the 1960s. As has been observed by several authors, the physical view of planning was reaching its peak after World War II in European as well as in North American planning practice. In several countries in Europe, planning was utilized as an instrument to guide and reconstruct war damaged cities.

It was during the Suharto new order government (1965–1998) that planning education in Indonesia grew significantly to produce professional/technocrat planners required to support the ambitious development agenda. By the end of 1990s, 30 planning schools had been established in Indonesia. During that time graduates from planning schools easily entered into the market, both in government institutions at central and local levels and as private consultants working on government projects. This situation triggered at least three important developments in the history of planning education in Indonesia.

The first was that more universities opened new programs in urban and regional planning. According to ASPI (2013) there were only 10 planning schools in Indonesia in 1990. The number of programs tripled by 2000 and growth has continued in the first decade of the twenty-first century. By 2010, there were 50 planning schools in Indonesia. Second, growth in planning education also triggered the establishment of graduate level programs in urban and regional planning to respond to the increasing needs for the advancement of planning research and advanced practices, as well as preparing those who teach in the growing number of undergraduate programs. This started with the opening of a graduate program at ITB in 1982, followed by other prominent universities opening master programs in Indonesia, such as Andalas University in Padang West Sumatera in 1985, Universitas Gadjah Mada (UGM) in 1994, Universitas Sumatera Utara (USU) in Medan in 1992, Universitas Hasanudin (UNHAS) in Makassar in 1993, and Universitas Diponegoro (UNDIP) in Semarang, Central Java in 1998. The growth of planning programs provided the conditions that triggered the establishment of ASPI, an important milestone in the history of planning education in Indonesia.

The origins of ASPI can be traced to 1998 when eight prominent planning schools in Indonesia, with support from the German Aid Institution (GTZ) organized a series of discussions following the initiation of the new master on regional planning at ITB (which was also facilitated by GTZ). One result of discussions with GTZ was the idea of assessing the overall needs for urban and regional planners in Indonesia. A year later, the Needs Assessment Study for Schools of Planning (NAS-SOP) was completed. It projected the future need for

urban and regional planners in the growing cities and regions of Indonesia. It was the first study to map out the existing and the future needs for planners and the implication for planning education in Indonesia. Particularly important to the history of ASPI, however, is that the idea of establishing a planning school association in Indonesia was also recommended by NAS-SOP to replicate what had happened in several Western countries.<sup>2</sup>

After two years of discussions, *Asosiasi Sekolah Perencanaan Indonesia* (ASPI) (Indonesian Planning School Association) was then established in 2001. That year, the first ASPI congress was organized at Diponegoro University (UNDIP) in Semarang. It resulted in the agreement on and declaration of the ASPI organizational structure and principles. Subanu, a senior lecturer at the planning school of Gadjah Mada University, who was one of the initiators of ASPI, noted that it was one of the most enjoyable and memorable accomplishments in his four decade-long career in planning education. ASPI brought together representatives from planning schools in Indonesia that nurtured strong personal bonds that later influenced the nature and development of ASPI as an organization.

Supported by active members and dedicated collegial committees, almost every year ASPI organized a series of meetings to discuss both educational issues as well as substantial issues related to urban and regional planning. Every two years, ASPI organized a National Seminar and Congress which was always attended by most of its members. During the biennale congresses, ASPI has been able to regenerate its committees. This modest achievement is actually quite important given that the work of the association is based on the voluntary nature of its membership and carried out through committees. Up to now, ASPI has been able to finance its activities without significant financial support either from government or donors.

In 2014, when ASPI organized a national meeting in Pekanbaru, Riau, the total number of member programs represented was 52, which did not include another eight planning schools which are not yet registered in ASPI. However, even with this continuous growth in planning education programs, Indonesia as a growing nation with a population of 240 million people and rapidly expanding cities has a capacity gap. The number of schools is still not sufficient to produce the thousands of planners needed by the country. A rough estimate suggests that if every planning school in Indonesia graduated at least 50 of their students every year, then 2,500 new planners would be ready to enter the market. Would that be enough and are graduates in the right places and with the proper skills? At present the geographical distribution of those 52 planning schools is still concentrated in Java, although efforts are underway to start planning schools outside Java, particularly in Sumatra and Sulawesi. Another important aspect of the development is that, at present, proportionally more graduate opportunities exist in planning education in Indonesia.

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<sup>2</sup>It is important to note here that most representatives from eight universities involved in the discussions were planners graduated from various planning schools in Europe and North America, who were very familiar with planning schools associations in America and European countries.

In 2013, after a three-year drafting process, ASPI produced what is known as the ASPI White Paper. The White Paper articulated views on Indonesian planning education related to several important issues, such as: the nature of planning; planning practices in Indonesia; professional planners and their ethical considerations; vision and mission of ASPI; and agreement for core curricula of planning schools in Indonesia. The document also includes a directory of its members, which is important for promoting interest in planning education in Indonesia and strengthening the planning education network.

The vision expressed in the White Paper is important since it reflects consolidated ideas of what ASPI is and what constitutes planning. First, is that ASPI is formed to serve as a forum for collaboration and networking among planning schools in Indonesia. Second, equality and togetherness are the basic spirit of the collaboration. Third, planning is a prescription for both long-term future and present problems. Fourth, the scope of planning is urban and regional. Fifth, urban and regional planning should be directed for the welfare and dignity of the country and society. The original vision translated from the Indonesian language is as follows:

ASPI is an association of planning schools in Indonesia and based on equality and togetherness/collegial spirits agree to work together and to collaborate in research and education for the advancement of planning which is a systemic, comprehensive, and holistic means in prescribing a better future and solving present urban and regional problems for the welfare and dignity of nation and society

The ASPI White Paper was important since it articulated the competencies for both undergraduate and graduate programs that should be in the core curriculum of planning programs in Indonesia. The core curricula should consist of at least the four following subjects: (1) planning theory; (2) planning process and method; (3) spatial theory; and (4) planning studio. The agreement was that any planning schools desiring to produce planners with a certain standard competency required at least these four subjects. In addition to developing curricular standards, ASPI served as a forum for discussions among Indonesia's planning faculty. Through meetings, seminars, and conferences regularly conducted by ASPI and its members, ASPI has been able to facilitate a healthy exchange of ideas concerning at least three important issues faced by planning schools in Indonesia: the prevailing ideas of planning, current planning practices and issues in Indonesia, and issues in planning education.

Also, ASPI has been able to legally and formally identify urban and regional planning as a specific field of study under the Indonesian education system. The education system in Indonesia, including higher education, is strictly regulated by the government. For higher degree education, a special directorate general was formed to regulate, monitor, and assess all study programs, including planning schools. Because 'urban and regional planning' was considered a new field of study, Directorate General for Higher Education under the Ministry of Education has taken special steps to formally recognize and list it as an official study area. Since then 'urban and regional planning' which is translated to Indonesian as



'*Perencanaan Wilayah dan Kota*' or abbreviated as '*PWK*' has become more widely understood in the Indonesian education system.

ASPI also helped to improve and strengthen planners as a distinct and recognized profession. This issue is crucial because prior to ASPI, planning was not acknowledged as a viable profession, at least when compared to closely related fields such as architecture and engineering. This is understandable given that planning was a relative young profession in Indonesia. Working closely with the Indonesian Association of Planners (IAP), however, ASPI was able to elevate planning to a recognized profession.

Another benefit of ASPI is that it has helped planning programs in Indonesia connect to global counterparts and to elevate their educational standards to the global level. Since its establishment, for example, ASPI and its members have routinely attended and have become actively involved in a series of meetings and seminars organized by the Asian Planning Schools Association (APSA) as well as other global planning conferences, including the Global Planning Education Association Network (GPEAN), the Association of Collegiate School of Planning in the United States (ACSP), and Association of European Schools of Planning (AESOP). It is important to note that since its establishment, ASPI members have joined the regional and global planning schools associations in order to interact with global partners.

In 2015, ASPI celebrated 15 years of advocacy for planning education. As the current head of this unique association, the author regards this association as moving to a mature state. Yet, at the same time, ASPI continues to question its roles and operations in the context of supporting a dynamic society. On one hand, ASPI and its members are becoming more confident in support of quality planning education. On the other hand, ASPI also continues to question whether the planning practices it advocates have resulted in a better quality of the environment and society in Indonesia. The next part of this paper will describe the role of planning education in Indonesian development.

## **The Role of Planning Education in Indonesia's Development: Critical Review**

Planning education in Indonesia (PEI) has been closely linked to Indonesia's development project and because of this has been an instrument of government planning practices. As previously noted, development planning in Indonesia has been centralist and heavily dependent on the government at least until the reform era after 1998. This development paradigm influenced the role and position of the planning profession and planning education in Indonesia. During the New Order Suharto regime, a positivistic and deterministic development approach materialized in the form of long-term development planning. It made planning a largely technocratic exercise and turned the planning profession into technocrats working in the office to support and to justify the development goals decided solely by government.

Related to the role of the planner as technocrat, planning education in Indonesia focused on the subjects of Social Reform and Policy Analysis. As has been explained by Friedman (1987), this approach is based on the idea that through technocratic analysis and mechanistic means, supported by a strong state and abundant financial resources, planning could be used to reform or change society from one stage to the next. Under the centralist, top-down development paradigm in Indonesia, this planning approach was utilized in the hope that through technocratic means, the government could change Indonesia from a developing country into a developed one. However, the fact that most planning education did not give enough attention to other planning approaches already discussed in the literature, this created a situation whereby most planners graduating from planning schools in Indonesia were conversant only in the government's vision of planning, and were not aware of other possible planning approaches which may have been more appropriate for Indonesia.

Most students who graduate from planning schools in Indonesia work for the government offices both at central and local levels. As a result, most planners who graduated from planning schools in Indonesia tended to work in and for the state's interests. Few planners in Indonesia dedicate themselves to serving the community. This is unfortunate since millions of poor and vulnerable people are desperately in need of planning that could support their needs.

Despite its growing availability and position, planning education in Indonesia has not been able to inspire planning practices that provide innovative approaches for complex and mounting urban and regional problems. The environment and the biodiversity found in Indonesia are unique and even considered as second only to the ecological diversity found in Brazil. Indonesia is also home to diverse cultural and ethnic groups that need support. However, this archipelagic country, the largest in the world, faces complex problems and challenges, including: poverty, inequality, environmental degradation, biodiversity threats, pluralism, and social conflicts. These are among problems that planning should seek to tackle. Balancing economic growth, environmental sustainability, social justice, and cultural diversity are therefore unavoidable goals for Indonesia. Planners, of course, cannot solve everything, however, through innovative and better planning ideas and processes, planners could act as catalysts for the betterment of the whole society.

### **Need for a Reform: Toward a More Democratic and Inclusive Planning**

From July to September 2014, a series of activities were conducted by the planning school at the Institute of Technology Bandung to celebrate the 55th anniversary of the first planning school in Indonesia. The main theme of the anniversary was to celebrate the roles of urban and regional planning in the era of decentralization and democratization. This was explored through a series of discussions related to

planning education and planning practices. The celebration was followed by a national seminar in September attended by over 200 participants, both ITB alumni and ASPI members. After presentations by alumni and government officials related to planning, the author presented ASPI's views on the future of planning education in Indonesia. The six points expressed by the author on that occasion are as follows.

First, planning education in Indonesia (PEI) should revisit the basic ideas of planning. This effort is crucial, particularly to critically assess whether planning has an influence on the betterment of society. Hendler (1995) has argued that planners tend to be concerned more with the "theory of planning" and "theory in planning", but forget another important issue; "theory for planning", which can shape critical debates on the roles of planning in society. Since planning has been practiced for centuries in Indonesia and supported by planning education since 1959, it is time now for PEI not only to increase the number of programs and the graduates, but also the quality and the impact of planning education.

Second, PEI should not be limited to a certain planning model. A common tendency is for most planning schools in Indonesia to teach only the rational comprehensive planning (RCP) approach (Setiawan 1997). This is not healthy since in reality planning practice faces so many complex problems and challenges that the RCP is either inadequate or even irrelevant to meet these challenges. Planning students should be exposed to and exercise an array of planning approaches.<sup>3</sup>

PEI should move beyond its predominant focus on spatial planning and the physical aspects of planning. Such a tendency was understandable during the early years of Indonesian independence, as it was a response to the acute physical problems during that time. However, because urban and regional problems in Indonesia are now so complex and the physical issue is only part of a wider set of issues, it is crucial to treat urban and regional phenomena more holistically, with attention to social, environmental, and economic as well as physical needs. Students in planning schools in Indonesia have to be exposed and trained to assess urban and regional issues in more comprehensive ways.

PEI should adopt a more critical engagement with the state. It is true that since its beginning PEI was established with key support from the state. The development of PEI has flourished because of this state support. This, however, has created a situation whereby PEI has become so close to the state that it has lost its capacity to critically examine what the state should do. In the future, a more critical engagement with the state would enable PEI to provide necessary recommendations for the betterment of planning practices in Indonesia. Advocacy planning, empowerment, and collaborative planning, for example, are approaches that are very relevant and should be systematically introduced to and exercised by planning students. Graduates from planning schools in Indonesia, therefore, should be equipped with a

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<sup>3</sup>This is particularly clear in the "Planning Studio" case where most planning schools in Indonesia utilized the RCP only, teaching students how to prepare spatial master planning as regulated by the law.

variety of planning approaches and skills that ultimately enable them to respond better to complex urban problems.

Finally, PEI should allocate more resources to exploring existing, unique local planning theories. This is particularly vital for graduate planning schools which have more opportunities for doing planning research and studies. The fact that planning practices have been exercised in Indonesia for centuries indicate that there must be certain local planning theories embedded in this country, which may still be relevant for today's planning problems.<sup>4</sup>

In brief, more than a half century since its establishment, planning education has evolved to a more mature state, and now needs to make a broad array of contributions to planning practices in this growing country. PEI needs to reorient its approaches and its orientation. The most fundamental consideration is whether PEI should step outside of its traditional way of transferring knowledge and skills on planning in order to inspire students and young planners to adopt a more critical perspective, no longer being driven solely by government and market forces.

## **Concluding Remarks: Agenda for a Reform**

Recently ASPI members agreed to embark on a reform of planning education. This agreement is not legally binding, but it was accepted at an annual meeting in 2013 as the agenda that ASPI members should pursue (ASPI Meetings: at Manado in 2013, Jakarta in 2013, Bandung in 2014). There are ten items for action as follows:

1. More flexible curriculum and more innovative teaching methods. A more flexible curriculum is important as it would enable every planning school in Indonesia to adapt its curriculum according to its needs. Innovative teaching methods are needed to ensure a more effective learning process. Such methods include: problems-based learning and using more real case studies in the teaching and learning process.
2. Agreement on core subjects which include: (1) planning theories and history; (2) planning process and methods; (3) spatial theories or development theories; and (4) planning studio/workshop. The core subjects are crucial and should not be deleted as they form the basic knowledge and ideology of planning. This means that every student in planning is required to take these subjects.
3. More emphasis on planning history and planning ethics in the planning theory course. Particularly important is to show students the possible links between

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<sup>4</sup>An interesting example of such efforts has been done at UGM starting from a class on Research Method. Students were exposed to the idea of a phenomenological approach in research, aiming to provide opportunities for students to explore local phenomena and concepts related to planning. The results were very interesting because to this day, there are at least ten PhD. dissertations and more than thirty master theses, which explore local theory or concepts related to planning and urban issues.

planning theories and planning practices and on the importance of teaching students about the history of planning practices in Indonesia. This is to enable students to critically assess whether planning has brought fundamental change in society.

4. Understanding the politics of urban planning and development is essential. This is to remind students that planning is not just a technocratic process, but political as well. In relation to this, it is also important for students to master some skills in communication, negotiation, and even conflict resolution.
5. Utilize more alternative planning approaches in the planning studio. The common tendency of the planning studio in planning schools to teach only the rational comprehensive planning method needs to be overcome. Other planning approaches such as community development, empowerment, advocacy planning, or collaborative planning, should be introduced to students. This would enable students to be more open-minded and ready for a wider range of challenges when they graduate.
6. Establish community services as living laboratories. This means that every planning school may establish community service programs and build continuing relationships with communities. It is through these programs that students could have more opportunities to exercise their knowledge and skills in, for example, for communication, focus group discussion, and community mapping.
7. Balance positivistic research approaches/methods with a phenomenological approach. This is in order that planning schools in Indonesia (particularly at the graduate level) are able to explore more local theories on planning.
8. More student and staff exchanges among planning schools in Indonesia. Such a program would provide opportunities for both students and staff to know and to learn from each other. Planning students from Java, for example, could be sent to planning schools outside Java to experience planning issues and challenges on other islands.
9. Broadening ASPI networks and collaborations both at the national and global levels. In this case, ASPI could serve as facilitator or mediator for possible collaborations between planning schools in Indonesia and their counterparts abroad.
10. An agreement to have more regular National Planning Conference gatherings that bring academics, students, and professionals together to discuss the practices and the future of planning in Indonesia. Such an occasion should be collaboratively organized by all parties, as it would reduce the gap between theoretical ideas and real practices.

The ASPI ten commandments could significantly change the way planning education in Indonesia is conceived and operationalized. It is not always easy to change something that has been established for quite a long time. It should be recognized that the identified changes would significantly influence planning education and practice in Indonesia. And it seems evident that change is worthwhile for the students, for the profession, and for the nation.

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**Part III**  
**Charting Future Trends**

# Chapter 16

## Envisioning the Future of Planning and Planning Education

Andrea I. Frank and Christopher Silver

**Abstract** Seeking to chart future trends, this chapter examines historical aspects in the discipline’s development, practitioners’ viewpoints, opinions from planning educators, and contributions from this forward looking Part of the book to develop and substantiate a vision of future planning curricula and educational approaches. While results from a survey of leading planning educators broadly reconfirm stalwart values of the planning field (“the pillars of planning”), some suggestions were posited in regards to more explicit integration of education for post-sustainability, resilience, and ecosystems concepts. Furthermore, interdisciplinary, diversity, pluralism, and the fields’ long-standing experience of participatory working should be turned into a virtue to bolsters the field’s academic standing given trajectories that promote university-community engagement, partnership and collaborative working with industry, government and society.

**Keywords** Planning education · Future · Interdisciplinarity · Leadership · Post-sustainability · Resilience

### Introduction

It is difficult to predict the future, as many misjudgments in the past illustrate. Greater accuracy is achievable for short-term predictions compared to longer term ones. One reason for predictions to fail is that humans and societies can and do regularly influence the path of development through deliberate action. Given the challenges faced in respect to urban agglomerations, overcoming pollution, congestion, and resource shortages, it is vital to ensure future planning graduates have

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the relevant skills, values, and knowledge to facilitate appropriate planning interventions. What then are the competencies future planners will need? What knowledge and which values are to be conveyed and what might be the most appropriate pedagogies and delivery mechanisms?

In line with other visioning exercises, our ideas for twenty-first century planning education build on a wide base and evidence. We draw on four sets of inputs in particular. First, we gain insights from historical developments. Then, opinions and views from practitioners (second input, Chap. 21) and from planning educators (third input) are triangulated and examined in conjunction with wider societal challenges, urban and regional development, and trends in (higher) education. Fourth, we draw clues and inspiration from innovative practices in planning education as outlined in the contributions hereafter (Chaps. 17–20). We hope that our suggestions for content, format and models of future planning education programs elaborated in the concluding part of this chapter stimulate much needed exchanges and discourse in the field and help to implement adjustments to curricula and programs proactively rather than reactively.

## Insights from History

History demonstrates that planning and planning education are tied closely to institutional and societal contexts (e.g., Frank et al. 2014; Gurran et al. 2008; Keller et al. 1996). Educators typically have endeavored to adapt curricula to cater to emerging demands in society and practice. Growing environmental concerns in the 1970s, for example, led to the integration of more environmental planning topics in planning curricula (e.g., Dalton 2001). More recently, (economic) globalization and the rise of pan-international agencies is suggesting a weakening of the importance of the nation state in favor of larger socially, economically, and ecologically linked regions. In Europe, this has led to the development of the 1999 European Spatial Development Perspective (ESDP) and a host of cross-national funding opportunities for cities and municipalities as well as pan-European legislation (laws and directives) with considerable implications for planning in each of the sovereign states of the union. To prepare future planners to cope with these international influences, planning educators started to develop new courses and programs covering subjects such as ‘European (strategic) planning’, ‘international spatial and economic reorganization’, and ‘transboundary planning’ (Dühr et al. 2016; Frank 2013). Some of these programs feature novel formats and collaborative delivery by multiple institutions in different countries as well as multilingual instruction to underline the international nature of their curricula. The focus and format of planning education is also influenced by technology (web, big data, and social media), as well as concerns over climate change, resource shortages, and the persistence of informality in urban development among other things.

## Views From Practice

When updating curriculum content, advice and guidance is regularly solicited from practitioners to ensure future graduates are employable (see, e.g., Guzzetta and Bollens 2003; Ozawa and Seltzer 1999; Scholl 2012). Selected practitioner opinions from US-based certified planners are presented in the final chapter of Part III. Paul Zucker's and Lee Brown's suggestions (Chap. 21) that planning education consists of a mix of skills development and classical "education" as well as developing personalities are not exactly breaking new ground, but nevertheless provide food for thought in respect to future planning education. Should curricula develop locally relevant knowledge first and then expand to global issues? Should skills development precede more theoretical content or the reverse? Put another way, would it be best to provide a broad education based on general principles in the first degree while leaving a special, context-specific set of courses to a second (advanced) degree? Should students learn context-specific material on the job? Or, should we become more flexible on the sequence of education and move beyond (Perloff's 1957) generalist with a specialism construct? More flexible pathways are already becoming a reality in some global regions and it may be useful to extend this to other places. The notion of life-long learning recurs and from a European perspective an awareness of international differences is also a frequent request from practitioners (e.g., Greif 2012).

## Re-evaluating the Pillars of Planning

Another, third, input to our visioning exercise stems from academia. In 2013/14 we contacted a non-representative sample of 45 experienced educators from urban, regional, or spatial planning programs and invited them to partake in an email survey on the content and format of planning education in the future. Specifically, we asked

1. "Will there be a shift in core planning values and what will they be? (e.g., in the last century Krueckeberg (1983) and Friedmann (1987) suggested that planning was built on three pillars: Beautification, efficiency and social justice). What will/should be the future pillars of planning?"
2. "What would be, in your opinion, the key competencies and knowledge that planning graduates should have in future (will this differ regionally or will there be global values?)"
3. "How do you see planning education being delivered in future (online, work-based, traditional university degree) and what would be an "ideal" planning education or pedagogies in your view?"

Nearly 50% (22) responses were received (15 male; 7 female). Seven respondents were employed at a variety of European higher education institutions and five

at US universities. The remaining ten responses were from academics working in Asia, Africa, New Zealand, and Australia. For each of the three open-ended questions, respondents were asked to assume a 10-year time horizon. Despite differing planning traditions, divergent nation-specific priorities, and legal circumstances, there was considerable agreement in respect to some issues. It appears that certain universal values and skills associated with the profession exist. We suggest that these universal “planner characteristics” should inform future curricula and any international level program accreditation.

In response to the first question a little more than two-thirds of all respondents suggested that the “pillars of planning” still hold true and remain central to the profession. Several respondents, however, qualified their statements in pointing out that while the values remain central, their interpretation has shifted, or is fluctuating. Moreover, pillars or values may not be given equal weighting and therefore might have differential status depending on national conditions (e.g., beautification). One individual intimated that the focus of planning education in respect to design varies by regions, whereas another suggested that beautification is becoming “muted but problem-solving, design and creativity will rise in importance.” The strongest convergence was around social justice, poverty alleviation, and equity. This is reflected in the emerging movement of the “right to the city” that is gaining provenance in multiple forums. Three of the twenty-two respondents suggested that planning tended to focus on protecting or enhancing the “common or public interest” but expressed doubts that the public interest can be clearly defined as societies and their value systems diversify. Two respondents pointed to the growing importance of effective public participation and private–public partnerships. A quarter of respondents proposed that social justice would have to be looked at from a more global scale, that planners and planning must become “more globally aware” as well as inclusive with respect to, for example, gender equity. About two-thirds of the respondents suggested that efficiency should become conceptually broadened to include resource efficiency alluding to future resource scarcity, environmental threats, and the need for nature stewardship. Seven respondents identified climate change issues, environmental justice, and sustainability as key priorities for future planning education and three respondents made reference to a comeback of health/wellness and making places livable as an important issue in planning.

The second question on key competencies and knowledge had respondents stress that “an ability to shape the built environment to increase value (efficiency/beautification) and distribute value (equity/social justice)” was needed. Interestingly, over half of the respondents felt that planners would benefit from greater competencies and knowledge of technology and natural science (ecology) as a prerequisite to proactively plan adaptations for urban settlements to climate change, resource shortages, and more frequently occurring environmental disasters. Linked to this were several calls for solid GIS, statistics, and quantitative analysis skills. The ability to work with professionals from other fields (“interdisciplinary dexterity”) and apply systems thinking was also seen as important. A second category of competencies identified for future planners was around financial and

management skills and political awareness. Planners should have leadership qualities. A third category included communication and negotiation skills—to become an articulate “spokespersons” as one called it. Communication skills were seen to be vital for community engagement and liaising with politicians and elected officials/governments. This should include an ability to use social media and to critically assess visual presentation by others, media, and websites. Fourth, spatial and global awareness (place matters!) and understanding that planning elsewhere works differently and that known practices may not be the norm. Fifth, students should develop an ability to think critically and to be creative in finding new solutions and to think long term (e.g., 20–50 year time horizon). Two things are noteworthy: First, the fairly large overlap of competencies listed by academics and by practitioners (Chap. 21) and second, not altogether unexpected, no mention of the centrality of comprehensive planning processes, or other standard bearers of traditional planning education.

The third question sought to explore future delivery mechanisms and program formats. Answers differentiated on one hand between delivery modes and who delivers (university or professional training provider) and on the other hand curriculum and planning specializations. In respect to the former, there are those that strongly believe that university-based planning education (preferably face to face, on campus) will remain the preferred *modus operandi* (both by students and educators). These views are contrasted by a second group of respondents who foresee a greater diversity of delivery modes in future, ranging from online, professional training courses to traditional on campus delivery of university programs. About one quarter of the respondents felt that a combination of modes will become increasingly available leading to “multimodal education” where learners can switch between modes throughout a life-long engagement with education and training. Such hybrid flexible models of delivery would allow learners to benefit not only from direct face-to-face contact and online provision but also from specialist courses and programs offered jointly by consortia of institutions. Sharing program delivery between different providers may be particularly advantageous for smaller countries with fewer resources. Approximately one-third of the respondents suggested planning education should include work-based, experiential learning elements in form of internships, service-learning and the like—emphasizing the benefits students derive from reflecting on practice and theoretical knowledge in turn. Some also noted that learning differs nowadays from the past and predict this trend to grow stronger, with students demanding more input, engagement, interactive pedagogies and more personalized (student-centered) learning. In time, competency-focused learning rather than a comprehensive curriculum-based education may become the standard, meaning students learn whenever they need to find out about something which supports a life-long learning approach.

Additionally some respondents suggested a future distinction of planning programs into three streams, where programs either focus on urban design/urbanism, policy/public administration and management, or economic planning and geography. Reflecting on answers to earlier questions, it seems that another future focus should be environmental issues although none of the respondents specifically

mentioned this. How otherwise will planning graduates address issues of climate change adaptation of urban areas and sustainability?

And, while generally treated as taboo, some respondents also wondered whether the increasingly shorter time frames for degree programs, with 3-year undergraduate and 12 months executive masters (at least in some parts of the world) make it difficult or even impossible to introduce students to a very complex profession and how this may be rethought.

## Emergent Themes and Innovative Pedagogies

The innovative developments in planning education, which center on themes rather than countries and regions and which are illustrated through the contributions in Chaps. 17–20 represent the fourth input to our vision. They offer valuable ideas for a twenty-first century planning curriculum.

A first prominent theme is “*University-community engagement, partnerships and collaboration*”. Chapter 17 by Schlossberg et al. offers an adaptable template as a means to create high impact university-community partnerships which can employ a cross-section of disciplines to foster sustainable development in a city or region. The approach is facilitated by a time-limited contract between a university or college and a city, county or region. In contrast to other service-learning type programs, the place-based program focus means that schools of urban and regional planning are in an enabling position to lead such efforts. The considerable uptake of the approach by other institutions in the US and elsewhere evidences its transferability. The “*University-community engagement, partnerships and collaboration*” theme shows that planning education can be a leading actor in transforming cities and places. The theme has emerged independently yet in similar form in the African context with planning school’s cooperating with NGO’s such as Slum Dweller’s International (SDI) to actively provide support for change in unplanned settlement areas (Chap. 10). Both examples represent a scaling up of more individual and isolated efforts undertaken by planning faculty for many years. Engagements and partnerships can be highly fruitful and rewarding for those involved but they are not without risks (to learners, educators or communities). Their implementation requires careful instructional design and further research as Angotti et al. (2011), Bose et al. (2014) and Winkler (2013) for example attest in their reflections on collaborative service-learning in design and planning.

The theme also resonates with Neuman’s evaluations of “The Collaborative Interdisciplinary Studio” (Chap. 18) albeit examples are at program rather than institutional level. The main focus of this contribution is, however, the value of studio and project teaching and how this pedagogy can be harnessed to address a second theme of importance to planning education—“*literacy in interdisciplinary working and thinking.*” Schuster (1950) has and many practitioners (Chap. 21) still do emphasize interdisciplinary as a vital skill. Interdisciplinarity plays a key role in discourses on cocreation and coproduction, which inevitably require different

stakeholders to interact. Yet, while interdisciplinarity is part of the profile used to describe planners, pedagogies to support the development of interdisciplinary thinking skills are not as well developed as one might think or hope (e.g., Ellis et al. 2008, see also Wilson and Beatley, Chap. 20).

The third theme for future planning education is “*sustainability or post-sustainability*” (Chap. 20) and the role of the natural environment in human settlements. This has been—like interdisciplinarity and engagement—for some time part of many curricula in planning and planning education. However, there is no simple or agreed way on what makes a place sustainable or resilient and education for sustainability remains a challenge.

A fourth and final theme emerging from the contributions is “*technology*” and its transformative influence on the operation of and life in cities and indeed how education itself is being delivered (Chap. 19). The opportunities associated with new technologies, social media and so forth are vast and open up, in parallel, new teaching and program delivery mechanisms and new ways of understanding, analyzing, and managing cities. At present, the majority of educators have hardly begun to consider how to employ technology creatively in planning education. The modern planning curriculum will have to incorporate teaching with and about technology in the city. Planning students will need to learn how modern technologies are impacting on and can reshape urban living and urban spaces so they can guide policies accordingly.

In sum, these four themes: (a) university-community engagement, partnerships and collaboration, (b) interdisciplinarity, (c) post-sustainability and (d) technology, together with ideas collected from historical insights, practice and planning educators are forming the elements of our proposed framework for future planning education.

## Ideas for Twenty-First Century Planning Education

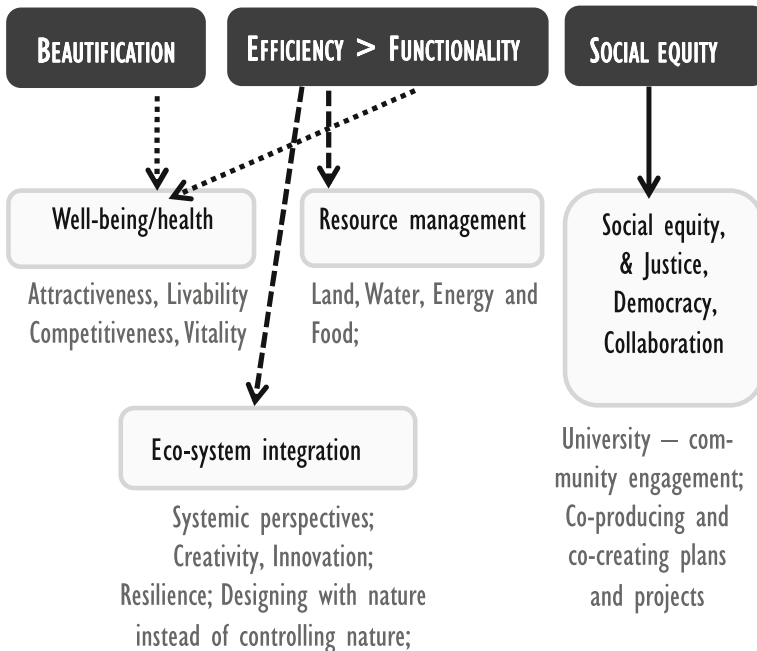
With over 50% of the world’s population now living in urbanized areas, the importance of well-planned, functioning cities and metropolitan areas cannot be emphasized sufficiently (e.g. UN-Habitat 2016). The ecological footprints of these urban agglomerations far outstrip capacities and calls for alternative city conceptions such as regenerative-restorative cities (World Future Council 2014) or smart/sharing cities (McLaren and Agyeman 2015) are gaining currency in a race to enhance sustainability and build healthy living environments.

We believe, therefore, that the planning project—i.e., the tasks for planners—will need to be reframed and newly interpreted. We further argue that rethinking curricula, pedagogies and delivery modes are likely insufficient. The best programs are no good if they are not recognized and supported. The status of universities, their purpose and funding mechanisms have become increasingly contested in recent decades by the massification of higher education (Trow 2000), global competition and a push to make university–society links explicitly relevant in

economic terms. As a result, smaller disciplines viewed as economic “loss-makers” have come under threat or have indeed been eliminated—with planning not being immune to such peril. Thus the planning education community needs to consider the field’s “intellectual” space in society and the university (e.g., Bertolini et al. 2012; Davoudi and Pendlebury 2010) and how programs and courses can be best positioned.

### *Reframing the Pillars of the Planning Domain*

Many of the academics participating in our survey reconfirmed the value set of planning but have also suggested that the interpretation of values is shifting. In this vein, we suggest to reframe the three original pillars and add a fourth one (Fig. 1). “Beautification” may be better conceived as *well-being and health*. The characteristics that make a city attractive to visitors and residents such as parks and open spaces do also contribute to creating a “healthy” environment in which people and their businesses thrive physically, socially and economically (Chap. 20). Efficiency (i.e., optimizing functionality of the city) ought to be reconceived as *resource management* looking at land, water, energy, and food as well as other urban



**Fig. 1** Reframing the pillars of planning

resources. Future planners need to be able to understand big data technologies to secure the best set up in urban management while embracing (*eco-*)*systems thinking* to conceptualize urban systems in multifunctional terms. This may include adaptable management techniques that exploit the multifunctionality of green infrastructure for water management rather than controlling or taming nature at all cost. Social equity is the pillar that remains but its meaning is explicitly expanded to include issues like justice, democratization of development and planning and collaborative (community-based), participatory planning.

### ***Future Key Skills, Knowledge Areas and Pedagogies***

Participatory planning has been advocated for decades by scholars like Arnstein (1969) and organizations such as the United Nations (UN-Habitat 2009). It leads generally to better projects and user satisfaction (e.g., Wates 2000). The role of planners as facilitators in co-learning and collaborative planning will be essential and requires a firm place in future curricula. Planners will need to be versed in the different techniques of public participation ranging from workshops and charrettes to the use of social media, gaming, and virtual reality tools.

Given the consensus on the importance of preparing planners to provide effective responses to climate change, natural resource protection and management, comprehensive coverage of these topics seems fundamental. Achieving resource efficiency will require both, behavioral and technological solutions. Considerable efficiencies in energy use can be made, for instance, through “smart” equipment that monitors and automatically adjusts energy generation to usage patterns. Smart phone apps can help motorists find parking spaces and thereby reduce the amount of time and fuel (and pollution) spent searching for a space in congested inner cities such as Rome, London, or New York. Smart (city) technology will be big business in future and many large corporations are making considerable investments in this area including IBM, Siemens, Cisco systems. Technologies can and will be implemented top-down or bottom up and planners need to be aware of the possibilities and pitfalls involved. Professor Batty of the Centre for Advanced Spatial Analysis (CASA) University College London, is adamant that “it’s time for a huge revolution in planner’s training to be much more scientifically literate, for them to be educated in new technologies” (Boardley 2014, p. 11).

Addressing the urban issues of the twenty-first century will require the concerted efforts of a range of professions. The field of planning has progressed interdisciplinary working processes perhaps more than other fields (Chap. 18). Leading interdisciplinary teams will be a key opportunity for future planners.

Finally, planning education must adequately cover locally unique regulations and norms within the context of shared concerns at the international level, as well as enable planners to seek out and derive best practices from looking beyond the local.



This requires a greater level of curriculum internationalization. Some degrees may even focus exclusively on international planning—not in the sense of international development planning or aid—but considering transnational planning issues (as in marine and coastal planning, or ecosystems and watershed planning, international transport). The globalization and internationalization of many major cities in the world means that future practitioners must also have skills in working with different ethnic groups.

Pedagogically, we believe that action-oriented learning via projects or work-based settings should make up a significant proportion of planning education. Opportunities to gain international and interdisciplinary working experiences will be vital. There may also be more collaboration between practice and universities to link research and implementation. The contributions by Schlossberg, et al., Newman, and Wilson and Beatley (Chaps. 17, 18 and 20) offer good examples that could be integrated more widely into planning education.

### *Planning Education “Space”*

Despite the creation of dedicated planning education programs in a growing number of countries, many planning academics remain rightly concerned that planning as an independent, standalone discipline continues to be contested and is considered inferior compared to other disciplines such as architecture or engineering (Geppert and Cotella 2010). The fact that planning does not fit neatly into the accepted mold of a classical science, nor into that of a design discipline, can prove to be problematic. The field’s (academic) contributions are often undervalued as common performance measures fail to capture planning’s diverse, interdisciplinary achievements in a cumulative manner. Yet, many planning programs are accredited by their respective national or professional bodies and the field scores comparatively high for fitness for purpose and student employability.

Returning to the notion that in future planning programs may offer three or four different streams (public administration/management, design/urbanism, economic/strategic planning, and environmental planning), a cursory review of existing provision shows that planning education is already covering different foci depending on the university faculty where the program(s) are housed. Table 1 illustrates the wide range of intellectual homes of planning and associated programs across a few countries and universities. At University of Dortmund (Germany), for example, spatial planning has been granted its own faculty which offers both undergraduate and postgraduate degrees. This is a rare setup and seeing planning as part of larger built environment faculties of various orientations or as part of a social science faculty is more common. Often a number of different specializations or programs are offered through one and the same department. Conversely, the University of Łódź (Poland) offers two separate undergraduate and three master programs in planning in parallel but through different faculties, each focusing on different planning aspects. For those familiar with the diverse intellectual roots of

the discipline, it is unsurprising to find planning education programs within a wide range of faculties spanning the entire spectrum from the social or environmental sciences to the design (landscape architecture, architecture) and engineering fields. It is undeniable that these diverse environments mirror the complex and varied aspects of the profession.

Comments from practitioners (Chap. 21) underscore time and again that planning practice requires individuals with both a general understanding of planning concepts and different disciplinary specializations. In fact, different disciplinary groundings for entry in master programs have been and still are widely encouraged. From a practice view, the diversity of planning programs and their association with different cognate fields is not necessarily an issue as they will result in different student profiles. The challenge for the field is to convey a coherent core skills/knowledge set across this diversity to outsiders and future graduates.

Prominent university leaders in North America such as Duderstadt (2003) and Wilson (1998) claimed that future progression of knowledge will depend less on reductionism but instead will likely be achieved through new (mixed) methods that support inter- and transdisciplinary research which cut across the boundaries of disciplinary silos. This offers hope and a policy window for planning to gain or regain lost territory. Planning is naturally positioned at the interface of a variety of disciplines in a brokering position, connecting and linking disciplines through its unique lenses of spatiality and action (see Chap. 17).

Working across boundaries and in an interdisciplinary or transdisciplinary manner can lead to new insights (Davoudi 2010); however, these insights do not occur automatically but require real engagement (Wagner et al. 2014). It also does not involve abolishing disciplinary boundaries. Webster (2008), in fact, argued that enhancing awareness of differences amongst disciplines and specializations may lead to a fuller acknowledgement of what each discipline can contribute to find a solution to a problem compared to another. Such clarity about differences will help build respect for disciplinary strengths and encourage working in a complementary rather than competitive manner, and to cocreate and coproduce solutions.

It seems therefore that planning and planning schools may be able to improve their institutional standing given current leanings toward inter- and transdisciplinary working. Strategies may involve a repositioning within an institution but details depend to a large degree on the academic setting in which any particular program is situated to start with. Conceptually, two existing typologies (Fig. 2a, b) and a potential future ideal can be distinguished (Fig. 2c). Drawing on Table 1 earlier, planning (PLAN) at present is either a smaller element in a larger overarching faculty or college (Fig. 2a) in the natural sciences, social sciences, or the design/engineering disciplines; or, alternatively, but rarely a free-standing autonomous institutional unit (Fig. 2b). In each case, planning draws on and links with relevant other subjects (OS). Self-contained units as in type (b), will likely have weaker external links as certain aspects of associated disciplines are already embedded within the faculty/college itself. Once a planning education provider has identified its type, a first step would be to map disciplinary boundaries (“sharpen-up” in Webster’s (2008) terminology) to discover synergies, differences

**Table 1** Diversity of academic homes and planning program foci

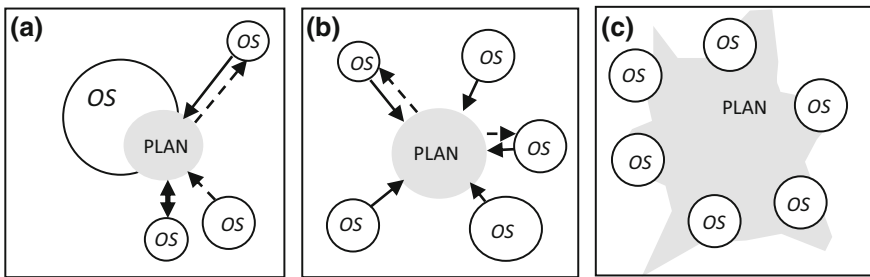
Country	Institution/faculty/college	Planning education program(s) <sup>a</sup>	Discipline environment
USA	University of Michigan, College of Architecture and Urban Planning	Master of Urban and Regional Planning Master of Urban Design	Architecture, Planning
	University of Southern California, Price School of Public Policy, Department of Urban and Regional Planning	Master of Urban Planning Master in Public Policy Master in Real Estate Development Master in Public Administration Master in Health Administration	Social sciences, Public policy
UK	University of Manchester, School of Environment, Education and Development,	BA urban and Regional planning BA environmental management MSc Urban Design and International Planning MSc Planning MSc urban regeneration and development MSc environmental impact assessment and management	Environment, economics, Policy
	Heriot-Watt University, School of Energy, Geoscience, Infrastructure and Society	BSc urban planning and property development MSc Urban and Regional Planning MSc Sustainable urban management MSc Urban Strategies and Design	Engineering/ Architecture/Environment
Germany	Technical University Dortmund, Faculty of Spatial Planning	BSc Spatial Planning MSc Spatial Planning MSc SPRING (Spatial Planning for Regions in Growing Economies)	Spatial planning
	University of Applied Science Stuttgart, Faculty of Architecture & Design, Dept. of Urban Planning	Master of Urban and Regional Planning	Architecture/Design
Poland	University of Łódź, Faculty of Geography	BSc Spatial Planning, MSc Spatial Planning (both jointly offered with Faculty of Management)	Geography

(continued)

**Table 1** (continued)

Country	Institution/faculty/college	Planning education program(s) <sup>a</sup>	Discipline environment
	University of Łódź, Faculty of Management	MSc Env. Planning & Management MSc Management of Local and Regional Government	Management
	University of Łódź, Faculty of Economics and Sociology	BSc Spatial Planning MSc Spatial Planning	Social sciences

<sup>a</sup>listing of programs is not exhaustive but focuses on those most related to the planning field; many departments and faculties offer many more programs



**Fig. 2** Typologies of planning education space (adapted from Bertolini et al. (2012), Fig. 1, p. 470)

and joint interests, which then could be systematically explored and broadened. Complementarity will be essential to fostering links with other disciplines. It will be important for planners to impress on other disciplines what its methods and viewpoints can add to any research activity or project work. Figure 2c, offers a new option, where the intellectual space that planning occupies is spread throughout the entire institution and so truly transcends boundaries to other disciplines. This “space” serves then as a collaborative research and education environment, akin perhaps to a neural network where planning delivers the coupling and connective synapses. While this may not be achievable or even desirable, it nonetheless offers a model which triggers a rethinking of the organization of planning related research and education within a university environment. There is a risk, of course, in that when planning education is “everywhere” it may be “no-where.”<sup>1</sup>

Given the theoretical embrace of inter- and transdisciplinarity, the lack of more activity in this realm may surprise. The inertia is likely fueled by narrowly conceived discipline-based academic performance criteria which perpetuate a

<sup>1</sup>Borrowing from Wildavsky (1973) “if planning is everything, maybe it’s nothing”.

traditional silo mentality. Any academic wishing to progress through the ranks will succeed with greater certainty when remaining within the discipline boundaries, publishing in traditional journals, etc. Planning (and many other fields spanning over multiple traditional disciplines) would benefit from more holistic and flexible approaches to performance review that incorporates a wider range of activities (Checkoway 1998) and rewards those working in boundary spanning fields in a more equitable fashion.

## Summary

This chapter outlines ideas for the education of planners in the twenty-first century. They derive from suggestions of established planning academics, practitioners, and innovative teaching approaches. Considering the ever greater ecological and environmental pressures that will ultimately pose a real threat to the survival of humankind, we postulate that planning education programs over the next decade must shift their value system (the pillars of planning) to reflect a greater awareness of the natural limits of our planet. We suggest a greater focus on maintaining and restoring the health and well-being of humans and the environment, managing resources smartly, and addressing inequities. As for competencies and skills, planners will need to embrace more scientific knowledge, natural science, and analysis, but also public participation and cocreation. Getting acquainted with a wide range of different scientific styles and paradigms will be key in being effective in interdisciplinary collaborative teams and leading such teams. A variety of educational pathways should be available including online study. Planning education needs to promote global awareness which might include international study embedded in curricula. Planning curricula should also maintain or reintroduce as necessary work-based experiences or internships. Finally planning educators should create opportunities for planning programs to assert their roles in university outreach, university-community engagement activities to facilitate active change in society (Trencher et al. 2014; see also Chaps. 17, 18 and 20).

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# Chapter 17

## Educational Partnerships for Innovation in Communities (EPIC): Harnessing University Resources to Create Change

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**Abstract** University–community collaborations, that is partnerships between universities and community organizations, cities, etc., have significant potential to advance both, education and urban innovation. Urban areas face a number of constraints in identifying and advancing innovations as city and community leaders may lack access to the latest scientific evidence and examples of best practice. Additionally, administrative structures can hinder interdisciplinary interactions between departments and the nature of decision-making in the urban political context overall tends to contribute to a culture of risk aversion that undermines creative problem solving. Universities can help communities address these challenges by channeling the work of faculty and students to critical problems and opportunities facing urban areas while at the same time universities and their faculty and students benefit from engagement with the realities of urban planning and decision-making. In 2009, a new, unique, large-scale, and purposeful university–community partnership program was developed at the University of Oregon to help bridge the city–university gap and in 2016 over twenty-five other universities have

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subsequently adopted and adapted what is now known as an “Educational Partnership for Innovation in Communities (EPIC)” framework. This chapter describes the replicable framework and highlights three university-based programs, all of which include substantial engagement of urban planning programs. Further, the chapter makes the case for campus and societal leadership by planning educators and programs across the globe.

**Keywords** Engaged learning · University–community partnerships · Planning education · Resiliency · Sustainability · Social innovation

## Introduction

Cities’ inability to innovate often comes not from a lack of knowledge about better solutions to pressing problems, but an inability to put knowledge into practice effectively and efficiently. There are three causes for this gap: (1) city staff and city leadership lack access to the latest evidence and examples of best practice; (2) administrative silos prevent creative approaches to fixing pressing social issues that span departments; and (3) cultures of risk aversion internally and externally prevent creative problem solving and implementation.

Universities generally have the exact opposite qualities: (1) faculty are the creators of and have access to the latest evidence from their field of expertise; (2) through applied coursework, students can translate and apply that knowledge to city-identified issues; and (3) students are both capable of and encouraged to be riskier and more innovative in their thinking than city staff or local consultants typically can be.

Overcoming this gap between knowledge and practice is the key for effective and innovative city operation that meets community quality of life goals. Issues of affordable housing, active transportation, access to social services, building supportive social networks, integrating historically disenfranchised voices into public decision-making, sustaining a viable local economy, providing clean air and water, maintaining public safety, and pursuing a series of other livability variables are all within the domain of local government. The trick has been in finding a way to systematically match city needs with university capacity in ways that benefit all parties, work within administrative structures, and at a scale that can have lasting and sustainable impacts for all involved.

In 2009, the University of Oregon pioneered a radically simple framework to solve this match-making problem called the Sustainable City Year Program (SCYP), a framework based around a yearlong partnership between a university and a city in which existing courses are directed toward that city’s self-identified ‘real-world’ quality of life projects and plans. It is simple in that it relies on *existing* classes, *existing* instructors, and *existing* curricula and is based on an opt-in approach for faculty. It is radical because (1) its projects are community identified and driven, (2) it mixes disciplines and faculty at an unprecedented scale, and (3) its

scale and breadth exponentially magnify the level of engagement as well as the pedagogic and community-based impacts. The scale of engagement—typically 500 + students across 30 + courses giving 60,000 + hours of effort to city-identified vexing issues—expedites the introduction and adoption of innovative thinking into local government, accelerates adoption of new policy and practice, re-charges city staff toward their public sector work, and trains the next generation workforce in effective, applied, multi-disciplinary approaches toward solving local quality of life issues.

Over twenty-five other universities have subsequently adopted and adapted this model, now known as an “Educational Partnership for Innovation in Communities (EPIC)” framework, demonstrating its scalability and replicability across city and university types. This chapter describes the general tenets of this university–community partnership model, as well as briefly describing three planning-school led efforts: the University of Oregon’s Sustainable City Year Program, the University of Minnesota Resilient Communities Project, and the Iowa Initiative for Sustainable Communities at the University of Iowa.

Planning education has a deep history of incorporating applied projects into the curriculum through capstone, studio, or community workshop courses, but also through ‘regular’ courses that may have a project element. And while many planning programs can point to successes of their applied learning approaches, both for students and the communities/clients they work with, in our view planning education could be doing much more. In fact, planning programs should not only be teaching our students specific content, as well as how to be more effective leaders, but our programs should be taking on leadership roles to help harness the tremendous amount of existing resources across universities to address society’s most pressing issues. We feel that the EPIC approach provides that leadership opportunity for planning programs generally.

## **Applied, Engaged, and Catalytic: The Next Generation of University Education**

There is a major disruption taking place in higher education due to new technologies, skeptical taxpayers and legislators, from those financially supporting students, and from students who already have access to the world’s knowledge and are seeking more immediate opportunities to do something with it. A 2014 survey of university Presidents conducted by the Chronicle of Higher Education made clear that university leadership is beginning to look for a new path forward that ascertains relevancy and sustainability in higher education (Chronicle of Higher Education 2014).

Many professionals are expected to know how to work across disciplines, collaborate in teams, understand place, navigate local community politics, publicly present their work orally and in writing, and possess a host of other “soft” skills that

are critically important in today's workforce. Some of these skills can be taught and practiced within a traditional classroom, but many cannot, and students increasingly seek out applied learning opportunities as part of their education (Weinstein Agrawal and Dill 2008).

One approach to expanding this skill set is through applied or experiential learning. Experiential learning encourages the development of transferable, professional skills, such as working in collaborative teams, developing public communication skills, and creative problem solving, and can result in a more rewarding educational experience for students (Kotval 2003). In these settings, students work on real-world projects in conjunction with real-world partners so that student work is both grounded in actual situations and accountable to an outside audience providing professional input and critique to students as they learn. Some argue that, more than just providing richer educational experiences for its students, universities should also support this type of engaged learning to help provide desperately needed assistance to local communities or agencies (Checkoway 1997).

That said, it is understandable that more 'regular' courses do not include a service or public engagement component. Many instructors have not been trained in or exposed to such pedagogy and do not understand how to lead them or are simply unaware of their benefits. Moreover, many instructors may be hesitant to develop full community-engaged courses because of the time commitment for the students and community partners. Therefore, developing opportunities for instructors to connect easily to such programs, without their needing necessarily to be the lead champion may be a key for engaging more faculty and in turn students in applied, experiential learning opportunities.

Such an in-depth university–community partnership focused not just on service or educational experiences, but on action, is actually part of a new international set of experimentation for higher education that is focused on 'co-creation for sustainability.' For these co-creation experiments a university "collaborates with diverse social actors to create societal transformations with the goal of materializing sustainable development in a specific location, region or societal sub-sector" (Trencher et al. 2014, p. 152). Trencher et al. (2014) go on to describe this emerging approach of higher education as something beyond the traditional delineation of teaching, research, and technology transfer; that "It is a move to actually transforming and co-creating society in the pursuit of sustainable development via a much broader range of channels, approaches and actors" (p. 169).

This emerging model of higher education is an opportunity for planning programs to not only express their relevance on campuses, but to lead their universities into a new era where knowledge generation and application of knowledge to meet urgent social challenges are seamlessly intertwined. Planning programs have a significant and possibly a central role to play, on our campus and throughout our communities to help leverage and utilize the vast amount of expertise on campus in a way that helps advance the social good. Planning programs are ideally situated to take on leadership because:

1. Planning is both problem focused and solution oriented
2. Planning is idealistic, yet realistic
3. Planning is broad in its disciplinary scope
4. Planning is knowledgeable about change processes
5. Planning understands community engagement.

In fact, planning programs may not only have a responsibility to our own students, but in some ways to students in other disciplines that also will play an important role meeting the difficult, vexing, and multi-faceted challenges facing cities in our urgent need to move forward sustainably. We, as planners, have a unique vantage point to understand how law, engineering, journalism, economics, design, business, geography, policy, and other fields all impact the way our communities operate; therefore it is upon planning programs to seize leadership and create models that harness the resources across these fields to help make greater impact in the communities and regions around the world.

## **The EPIC Framework: A New Model for Planning and Higher Education**

The idea of connecting university classrooms to real-world problems is not new and there are many successful programs doing this type of work. Most efforts, however, are one-off projects that develop through personal relationships between a faculty member and a city staff person. It is common for some universities to have multiple faculties engaging in real-world projects, but doing so separately and independently from one another and possibly with different municipal partners. Coordinating such engagement across a university and directing this larger scale of effort to a single city over an entire year radically changes the impact.

Collectively, we refer to this new approach to leveraging existing institutional resources in a way that creates more impact as “Catalytic Learning” within the broad framework called “Educational Partnerships for Innovation in Communities (EPIC).” “Catalytic Learning” is an approach toward the classroom that is explicitly designed to create change—both in the ability of students to be effective when working on vexing community issues and in helping move communities toward more sustainable practice and policy. Catalytic learning has an explicit action orientation. “Educational Partnerships for Innovation in Communities” means that the practice-based work is much more than a client-consultant relationship; rather city leadership and community stakeholders engage in a trusting, collaborative partnership with the university where problem definitions, scopes of work, and setting of mutual expectations are all developed in partnership, with the full understanding that all parties have ‘skin in the game,’ and that the project work is directly related to each organization’s goals.

Together, *the EPIC Framework* aims to use the best of applied learning common in many planning programs, but significantly enhance the engagement and

partnership on and off campus to increase student experience and help communities accelerate their ability to make sustainable change. The *EPIC Framework* provides an easily adoptable and adaptable platform for planning programs across the globe to take on campus and societal leadership positions. As of this writing over twenty-five universities across fourteen states (and two countries) are implementing a version of this model, demonstrating its flexibility; this group of institutions have formed the EPIC Network (EPIC-N) to continue to enhance their efforts and help additional institutions adopt and adapt the framework.

In April 2015, several members of EPIC-N developed the following key tenets of what makes the framework unique and work. Many of these elements are familiar to other engaged learning or university-based programs, but the collection of all twelve at once is what makes this approach different, but more importantly, effective:

### ***EPIC's 12 Key Tenets***

1. This is a university and community *partnership*—Projects are identified by the community and only go forward after an iterative process between key community stakeholders and faculty where they jointly agree to a scope of work that satisfies both community and educational needs. Thus, this model is done *with* communities as full partners;
2. The program utilizes *existing courses*—On the university side, the program is largely based on courses that already exist, taught by instructors already scheduled to teach those classes, and assignments or course projects already part of the course structure;
3. The program is *scaled for impact*—The partnership must be at a sufficient scale of activity that its presence is felt in the community and on campus, in both quantity and across disciplines;
4. It is based on *faculty opting-in*—Participation by faculty is voluntary and participating one year does not commit anyone to a subsequent year (although most faculty choose to remain involved). Frequently, participating in the program makes teaching applied courses actually easier, as there is a coordinator finding projects, bringing partners to the table, and organizing logistics. This is ultimately a bottom-up process within the university;
5. Community partners are chosen through a *deliberative selection process*—EPIC is not exclusively focused on the host city of the university and facilitates academic institutions to serve a broader geographical region and diverse set of communities, cities, metropolitan regions, or rural areas. Becoming a community partner is a competitive process for which a deliberative selection process ensures commitment and readiness;
6. Projects are defined by university and community *consensus*—project ideas are finalized through an iterative match-making process between faculty and local

- government (or private sector or nonprofit) staff where ideas are jointly proposed and only those that meet each other's needs go forward;
7. The focus is on meeting *important societal needs*—these partnerships have a social agenda and address important societal issues such as sustainability, public health, economic development, or other pressing issues of concern appropriate to the municipality's needs and university's capacity;
  8. *Students* are actively engaged in the endeavor—this is a program that taps students at a massive scale, in their courses, to provide insight, ideas, and political space for local decision-making;
  9. The program is *multidisciplinary* in approach—EPIC is a multicourse, multidiscipline approach toward learning and catalyzing community change. The scale allows a broader engagement of community stakeholders and decision makers and creates buzz on and off campus in ways that are often not possible with single, isolated course approaches;
  10. There is a *defined geographic focus*—the key to an EPIC program is that it harnesses multiple courses across campus and directs them to a single, geographically defined place, whether that is an entire small to medium sized city, a subsection of a large city, key transit corridors, a port, or a Native American reservation;
  11. There is a *defined time limit* to the partnership—the partnership ends, typically after one or two years and then another university partner is engaged. Because projects have to be part of existing municipal workplans, the work generated during the partnership continues to help guide community decision-making after the formal partnership ends;
  12. There is a *mutual investment* by the city and university. Cities that participate pay to ensure professional engagement, quality products, and a coordinated approach. University of Oregon partners, for example, have paid between \$250,000–\$350,000. City funding is typically decentralized and comes from multiple sources across city departments and other community stakeholder groups. In exchange, the university is often dedicating up to \$400,000 in faculty time plus 40,000 + hours of student engagement in the projects.

Given its unique approach, there are also a few items to be clear about what this model is not:

1. *Top down.* As the model is based on existing courses it requires no administrative approval at any level of the institution.
2. *Consultants or substitute staff.* The core of EPIC is to take all ideas and work that students normally turn into faculty at the end of the term and share those insights with a community partner. Students and faculty are not consultants, nor substitute staff, but idea generators that can help city staff and community stakeholders engage in nonthreatening conversations about future opportunities. Overall, students are more able to generate ideas and facilitate public

conversation than staff or consultants typically can due to risk aversion and conservative problem framing.

3. *A replacement for other service-learning efforts.* There are many excellent examples of service-learning efforts across different disciplines and universities, and EPIC is not a replacement but a complementary effort along a spectrum of applied learning approaches, one that is multidisciplinary, and much larger in scale. EPIC can engage other service-learning efforts on campus, so it can be an inclusive model.

### ***EPIC: How the Model Works***

At its most basic level, EPIC is a matchmaking process between existing courses across campus and needs in a single community with project work taking place over a single academic year. The scale of activity is the key that generates value for both university education and community impact. A basic, four-step method guides the development and organization of university–community partnerships:

#### **Step 1: City Applies and Is Accepted to the Program**

Cities apply and compete to be accepted as the Partner City for a given year. This process acts as a catalyst for developing community-generated project ideas, ensures that elected officials and city staff are prepared to engage with students seriously, and helps ascertain that there is a serious commitment to moving forward with appropriate student-produced ideas. Successful applications include five key elements: (1) 15–20 potential projects that can be accomplished in an academic terms over a single academic year; (2) projects that are community generated and involve a broad set of local partners, ensuring that there is full community buy-in, and are part of the city’s proposed work plan for the upcoming year; (3) projects that address sustainability issues; (4) explicit buy-in from the top, including the mayor, city council, and city manager; and (5) the city’s demonstrated financial commitment to the university for part or all of the cost of running the program. Multiple city departments and community organizations are often involved in the creation of the application and subsequently in the work itself. Community partners can include the city manager’s office and the Departments of Urban Development, Public Information, Engineering, Police, Parks, Libraries, Transportation Planning, Facilities Management, Housing and Social Services, Public Works, and non-city entities such as the United Way, private developers, neighborhood associations, the American Institute of Architects, transit districts, the State departments, bicycle advisory committees, and more.

#### **Step 2: Faculty Express Interest in Working with the City**

Once a city is selected, the projects identified in the proposal are distributed to faculty across campus to find instructors interested in working on one through their courses. Four different outcomes emerge from this matchmaking process: (1) a

direct match between city project and course; (2) a close match, but some alterations are needed; (3) no instructor steps forward to work on a proposed city project; or (4) faculty propose ideas to the city that were not originally identified in the proposal. Throughout this matchmaking process, project coordinators from the city and university work to pair individual faculty with their counterpart in the city to define and refine projects that can be meaningful for the city and appropriate learning opportunities for students. The instructor and city staff person define scope, schedule, and deliverables and continue working together until their project is complete.

### **Step 3: Coordinators Within the University and City Facilitate Systems to Carry Out the Work**

A critical element for success is the establishment of coordinators on campus and in the city for the yearlong engagement. City staff define problems, provide information, accompany students on site visits, and participate in reviews of student work to ensure that they are developing viable solutions. A university program manager coordinates the university side of the partnership. She or he manages the application process, matches faculty and courses with city-identified projects, manages the budget, organizes events and communications, and oversees final reports for the city. While the actual coursework occurs over a single academic year, the engagement that prepares for this work often starts six to eight months earlier.

### **Step 4: Courses Commence**

Faculty teach their courses as they normally would, but have their applied component focused on the partner city. Most classes make a site visit to the community and meet with key city leadership and community stakeholders at the beginning of the term, although some courses do not necessarily need to (e.g., cost-benefit analysis or quantitative methods). Students are free to make additional site visits, and often city staff and community members make time to host students who do make additional visits. For studios, city staff often come to campus for midterm reviews. Final course presentations vary with some taking place in the community and some on campus. A kick-off event at the beginning of the year on campus can build excitement for the year to come and an end of the year celebration in the community gives the city leaders and community further opportunity to see the wide range of work and continue conversations about what ideas can be put into practice. Top students in each class are hired to compile student work into a synthesized and organized final report, which is an important deliverable for the city and available on-line for communities and instructors everywhere to use.

## ***The University of Oregon's Sustainable City Year Program***

The EPIC model began when the University of Oregon's Sustainable Cities Initiative (SCI) launched the Sustainable City Year Program (SCYP) in 2009. The



program was based on an experimental idea by five professors across several disciplines (planning, architecture, public administration) that were interested in granting easier access to community members to some of the excellent work students were turning in as part of their regular course projects. Each group member agreed to direct one of their courses to the same municipality the following year to see if increasing the scale of applied work would attract greater community attention to student work.

To pilot the idea, the group approached the City of Gresham, a city of about 110,000 people located 100 miles north of the University of Oregon that also had a University of Oregon alumna as City Manager. The faculty brought a list of 10–15 potential classes they knew about across campus that focused on different aspects of city life to see if Gresham staff would be interested in the topics at all. It was a surprise to everyone, that not only were all the courses/topics of real interest, but the brainstorming session that ensued generated an additional set of topics for possible match making. In the end, what started as a proof of concept year with five professors informally agreeing to focus on the same city with one of their classes, ended up with nineteen courses across multiple disciplines all working with Gresham staff and community stakeholders over the academic year. Moreover, after an initial handshake agreement with no monetary expectations, the City ended up paying \$83,000 to SCYP to help defray managerial program costs. Both parties were surprised at how easily the matches developed, how connected each project was to the requirements of each institution, how useful student work from ‘regular’ classes were, and immediately began questioning why involvement at such a large scale was not more widespread.

During this pilot year the University of Oregon (UO) was approached by other cities to be the partner for the subsequent year and as a result a Request for Proposals (RFP) process was developed with the program working with a different city partner each year since. Now, in a typical year, SCYP helps match 25–35 courses across 10 + disciplines, 500 + students, and 40–80,000 hours of effort toward 10–20 city-identified projects (some projects have multiple courses attached). SCYP fully charges the city for the cost of the program, ranging from \$250,000–\$350,000 per year. As of this writing, SCYP has worked with six Oregon cities using this fully scaled model:

- Gresham (pop. 110 000, 100 miles from UO, 19 courses);
- Salem (pop. 157 000, 66 miles from UO, 25 courses);
- Springfield (pop. 60 000, 5 miles from UO, 30 courses);
- Medford (pop. 76 000, 167 miles from UO, 35 courses);
- Redmond (pop. 28 000, 126 miles from UO, 22 courses); and
- Albany (pop. 52 000, 46 miles from UO, 20 + courses).

The overall organization is co-directed by two-tenured faculty and managed by a program manager paid for with the city fee. SCYP spans five of seven schools/colleges on campus and has engaged 55 + different faculty thus far from planning, architecture, landscape architecture, public administration, law, business, journalism, geography, economics, digital arts, product design, and arts administration. Civil engineering courses from Portland State University have also participated, and conversations with faculty at other universities and community colleges have taken place to find additional matches between existing higher education capacity and community need. To get a sense of the range of applied projects that SCYP courses have addressed, all project reports are available on-line: <http://sci.uoregon.edu/>).

## **University of Minnesota Resilient Communities Project**

The Resilient Communities Project (RCP) was established in 2012 as an initiative of the University of Minnesota's (UMN) Sustainability Faculty Network, a grass-roots group of over 60 professors intend on advancing sustainability education at the UMN. The Network developed an implementation strategy to enhance communication around sustainability education, to network faculty and students interested in sustainability education, and to support curriculum development around sustainability education. A key aspect of this curriculum development was the pursuit of an engaged learning program that would create opportunities for a wide range of UMN students to work on sustainability projects in a variety of UMN courses.

Subsequently, the Sustainability Faculty Network with support from two university-wide research and outreach centers started the Resilient Communities Project as an interdisciplinary community–university engagement program. Based on the University of Oregon's SCYP program, RCP works on a partnership model, wherein the program facilitates a partnership between the UMN and one Minnesota community each academic year. Communities are selected via a competitive RFP process that invites prospective partners to outline their commitment to sustainability and potential projects that would help them to become more resilient along the four-step process described above. Thus far, RCP has focused on graduate-level courses and upper-division undergraduate courses to ensure a relatively consistent level of capacity. The first three partner communities were cities and the most recent completed partnership in 2015–2016 engaged a county as the lead organization, along with three cities in the county, a community development agency, a transit provider, a school district, and the county's historical society.

The Master of Urban and Regional Planning (MURP) program has been an excellent source of courses, considering their focus on a variety of issues that communities are concerned with (e.g., transportation, housing, public participation,

economic development). For example, MURP courses engaged in RCP between 2013–2015 included a core course that typically requires students to work in teams to design a public participation process in response to an RFP. Rather than recruiting one or more communities to help develop a mock RFP, the instructor developed brief RFPs around partner community projects that had a connection to public engagement. Student teams were then assigned one of the RFPs and developed public participation processes that the partner communities could use in developing a community gardens policy and a public art plan, implementing its existing living streets plan, engaging mobile home park residents around community health issues, exploring creative approaches to engagement in recreation planning, and promoting engagement among underrepresented groups in the next comprehensive plan update. In other planning courses, students conducted parking and market analyses as part of a review of potential downtown revitalization strategies, assessed strategies for promoting affordable housing, developed a trail wayfinding program, analyzed recreation facilities/services relative to the needs of new immigrants, and proposed strategies for developing a resilient local food system. Students made policy and design recommendations that were connected to the unique context of the communities that they were working in.

Beyond the MURP program, RCP has engaged departments such as Civil Engineering, Law, Communication Studies, Graphic Design, Gerontology, Horticultural Sciences, Marketing, Environmental Education, Forest and Natural Resource Management, Human Resources and Industrial Relations, Youth Studies, Social Work, and Public Health. Projects have addressed a diversity of topics such as live/work housing, enhancing neighborhood identities, aging in place, public art planning, invasive species management, community gardens, green energy, staff development/retention planning, safe routes to school, and stormwater management. As a large public Land Grant institution, the UMN offers tremendous access to a diversity of disciplines and expertise. As a UMN-wide effort, without formal attachments to a department, college, or other administrative unit, RCP is able to connect that expertise with communities in a manner that is efficient and directly targeted to the issues and priority projects in the partner community. In its first two years, RCP has collaborated on 88 locally identified projects, facilitated 141 course matches, and engaged 39 departments in 12 colleges at two UMN campuses. Over 1300 students have had the opportunity to work on community-based sustainability projects as part of their regular coursework.

## **Iowa Initiative for Sustainable Communities at the University of Iowa**

The impetus for University of Iowa's sustainability-based, community engagement program was University of Iowa (UI) President Sally Mason's 2008 announcement that "Sustainability must and will become a central priority of all aspects of our

university enterprise—our operations, our academic mission, *and our responsibilities to the greater society* (emphasis added).” This university-wide commitment to sustainability meant that planning schools, like the UI School of Urban and Regional Planning (SURP) could rise to a campus-wide role in enabling their university’s leadership in sustainability.

Consequently, the SURP faculty resolved in 2009 to focus the School’s capstone studio on sustainability. Sustainability, of course, is a broad umbrella and many planning studio topics fit comfortably within it. Nevertheless, by focusing on sustainability and rebranding the School’s capstone course as the Iowa Initiative for Sustainable Communities (IISC), the faculty sent a message to students, the University, and communities throughout Iowa that sustainability is an important direction for communities to take.

IISC began to take further shape in Fall 2009 when IISC became aware of the University of Oregon’s SCYP program. Oregon’s focus on concentrating the resources of the University on one community so that impacts would be visible and students and faculty would have the opportunity to work on problems from a variety of perspectives represented a convincing model, as was the idea of expanding community engagement beyond the planning department to other units on campus.

In the meantime, IISC’s reputation and impact was increasing as students and faculty completed sustainability-related planning reports in seven Iowa communities in 2009–2010 and 2010–2011. These efforts quickly caught the attention of UI’s Provost and Vice President for Research, who were seeking a means by which UI could provide sustainability research assistance to the city of Dubuque, Iowa. Dubuque had already garnered an international reputation for linking sustainability with economic development and therefore represented a prime place for a university–community partnership. The UI administration therefore asked IISC and the School of Urban and Regional Planning to engage in a two year partnership with Dubuque that resulted in 10 studio projects engaging 65 graduate students.

IISC’s work in Dubuque demonstrated the need to take a multi-disciplinary approach to a multidimensional problem like sustainability. In Spring 2012, the University announced a competition for funds to support community engagement programs that promise “Better Futures for Iowans,” one of four “pillars” in UI’s 2010–2016 strategic plan. The School of Urban and Regional Planning was able to write a winning proposal, which enabled the School to hire a full-time program coordinator able to expand community engagement activities beyond the planning discipline.

Employing the SCYP model and working closely with three Iowa communities, Cedar Rapids, Muscatine, and Washington, IISC was able to develop 29 projects that engaged over 160 students and numerous faculty in the School of Urban and Regional Planning, as well as in Public Health, Civil and Environmental Engineering, Marketing, Mass Communications, Journalism, Library and Information Science, Social Work, Rhetoric, and Arts Share (which works with students and faculty in Art and Music on public projects). Projects included a riverfront revitalization plan for Muscatine, a financing plan for a business

improvement district in Cedar Rapids, and engineering plans for a Wellness Park in Washington. Rhetoric and Art students added the humanities and arts to the sustainability mix with digital narratives in Muscatine and the painting of a two-story mural on the alley face of the Washington Public Library.

Building on its growing reputation both on campus and throughout Iowa, IISC launched its first formal Request for Proposals in Fall 2013, from which two cities were selected—Sioux City and Decorah-Winneshiek County. As IISC's reputation has grown, so have the visibility of its projects, so that by Spring 2016, eight cities and towns applied and two new partners were selected—Mason City and the East Central Iowa Intergovernmental Association. In 2014, IISC became a featured program of the University of Iowa Provost's Office of Outreach and Engagement. Its critical role in the University's growing commitment to community engagement/sustainability is evidenced by both praise and dollars from the highest levels of the University. IISC has definitively put planning on the map at the University of Iowa and in the state of Iowa.

## General Outcomes

There are three different ways to look at the outcomes of the *EPIC Framework*—from the student perspective, from the university perspective and from the city perspective.

Students across these three programs identified the following benefits from participation:

1. *Leadership, Hard, and Soft Skill Opportunities*: Students are challenged to work closely with real clients, present in front of city councils, engage community members, and often work in teams to produce written and orally presented materials. Because the local government partner is fully invested in the partnership and projects are part of their work plan, they are very present in each course, thus the opportunities for engagement and to build professionalism and develop confidence for students is extremely rich.
2. *Addressing Real-World Issues*: Students frequently express a desire to apply their developing knowledge to real work issues, while they are still students and this program helps them do that through some of their 'regular' courses. This applied and active learning helps students understand the depth of their own knowledge, the extent to which their field of study is wholly or just part of a community solution, allows students (and faculty) to apply theory to practice, and helps students consider the impact of their ideas in real communities.
3. *Access to Professionals*: Students engage with city staff, local professionals, elected officials, and community leaders at a much higher level than they typically will be afforded upon graduation, giving them early exposure to that type

of engagement and a unique opportunity to share their ideas with actual decision-makers; many students also form professional relationships that can lead to internships or job opportunities after graduation.

4. *Interdisciplinary Education*: Students sometimes have the chance to work on projects integrated across disciplines and often at least know about many other courses across campus that are tackling similar issues, thereby expanding their understanding of the extent and limitations of their own discipline. Students develop new perspectives by working with students outside of their own disciplines.

From the University perspective, this cross-disciplinary, massively scaled effort easily becomes a point of focus for campuses, which tend to desire interdisciplinarity and breaking down silos, but have few robust and sustainable programs to do so. Because the EPIC Framework relies on an opt-in model from faculty and that the projects are driven by community needs, a wide variety of faculty, students, and disciplines can be part of the effort. And because the work is handled by existing courses, the program is an easy way to reach across campus without increasing the work load of faculty. SCYP, IISC, and RCP have all become priorities of the Provosts' offices within two years of operations.

From the community perspective, there are both short-term and long-term gains reported. City partners have repeatedly given feedback that the engagement with the university at a large scale produced the following outcomes:

1. Significant access to new knowledge and fresh thinking about vexing issues or 'stuck' projects;
2. Ability to float riskier ideas and hold productive community conversations than typically possible by city staff or consultants;
3. Tangible, implementable policy, design, and project ideas;
4. Significant acceleration and advancement of projects beyond what staff could have done;
5. Re-training and energizing of city staff about sustainability issues;
6. Integration of marginalized communities into public discourse;
7. Facilitation of private-public sector relationships; and
8. Creation of a positive buzz about what is possible, rather than an ethos of inaction.

## **Sustaining Success and Avoiding the Pitfalls**

There have been many iterations of applied, experiential, project-based, participatory, or service-oriented learning over the last decades, with the field of planning often very engaged. Two primary critiques (for example, see Angotti et al. (2011) or Brand and Rincón (2007)) often emerge: (1) that success does not sustain after the university "pulls out" from a city; and (2) that university stakeholders receive

disproportionate benefit, often to a degree of being exploitative of the community partner.

The EPIC Framework addresses both concerns with the same approach. Sustaining success and working in true partnership are both handled by: (1) the city partner applying to be part of the program; (2) that city projects must be part of the existing city work plan or goals; and (3) project scopes are done collaboratively between a project lead from the community and the course instructor, ensuring that project deliverables provide value added for all parties involved. Because the city pays a fee and applies to be an annual partner, they are invested in real projects. This simple contractual relationship, albeit one based on a tremendous amount of relationship building, ensures an equality among the primary institutional stakeholders. Yet for university students and faculty, because the engagement relies on courses, the scope of such projects must retain an open-endedness to allow for student creativity and variability. Thus, projects are scoped to maximize the value to both the city and the university leads (staff and faculty), and because the focus of projects are originally identified by city staff and their existing work plans, the university-based outputs offer direct input and assistance for city staff who internalize student work and translate new ideas into work tasks over several subsequent years.

## **Room for Improvement**

Overall, our collective experience with this new framework—one based on existing courses, existing community needs, an opt-in approach for faculty, and coordinating project scopes of work between community and faculty leads—seems to have created a robust administrative infrastructure that focuses on providing added value to each stakeholder group that is part of the effort. There are three key areas of focus for new potential programs to be aware of: (1) funding the program; (2) creating interdisciplinary opportunities; and (3) providing continued community assistance as needed.

The primary issue for new programs is how to fund the administrative costs of operating it. There are three basic approaches: (1) the city partner fully funds the program (SCYP model at  $\pm$  \$300 000 per year); (2) the city and university jointly fund the program (RCP and IISC); and (3) a community foundation or other philanthropic entity contributes a portion of the funding. In all cases, it is critical that the community pay at least a portion as it demonstrates commitment and ensures “skin in the game.” For SCYP, city funding is actually distributed across city departments, nonprofit organizations, and private sector interests, linking key stakeholder budgets to projects.

Of secondary importance are developing opportunities for rich interdisciplinary activities beyond the individual courses that students and faculty are part of. In each of these programs, students and faculty are aware of the larger whole, but do not always have active ways to engage with one another. The integration of disciplinary

perspectives happens through deliverables to the city—which is of primary importance—but developing robust opportunities to work across disciplines on campus can be trickier. Core to the EPIC model is to utilize existing administrative activities without adding work to anyone, thus developing ways for interdisciplinary activity that does not go against this philosophy is something that needs to be developed.

The third area where a variety of approaches are likely to evolve over time is how to continue working with a current city if the program is structured to work with a different city a subsequent year. In all of our experiences, the large-scale engagement leads to a number of new relationships between community stakeholders and university faculty as well as a better understanding about how the community and university can work together effectively. Inevitably, new or follow up projects emerge from city officials, yet some of the desired university expertise may be committed to a subsequent city. Each program will need to figure out its own balance of continued engagement with past cities and engaging with new ones at the scale that is a hallmark of the EPIC Framework.

## Conclusion

The *Educational Partnerships for Innovation in Communities Framework* challenges students and a city partner to think critically about barriers to sustainability and to work together to design creative solutions. Universities are in a unique position to help on a variety of issues—both immediately through catalytic learning, applied research, and service projects and long term through the training of the next generation of professionals. Students hunger for coursework that combines the theoretical with the applied and desperately want to contribute their work toward sustainability goals. Students frequently generate innovative ideas as part of their regular, non-service-based classes that communities could use, but those ideas usually only appear in projects for professors to grade. Communities are equally looking for access to ideas and ways to engage new thinking in politically safe ways that can result in improved practice and community benefit.

We are entering a prime time for planning—climate change demands our cities be organized differently, both to reduce our carbon emissions and to be resilient as natural disasters and seawater rise accelerates. Significant ideological shifts are occurring that include preference toward more compact urbanism and land use that supports non-automotive forms of transportation (American Planning Association 2014). This shift has implications for many disciplines, yet planning is the field and profession with an ability to leverage expertise across fields in pursuit of the common good.

More than ever, planning programs have an opportunity to lead on these issues by organizing higher education institutions to make greater impact and train the next generation of planners and leaders to be effective in working across disciplines and on difficult issues that require significantly different ways of organizing the



world's cities. The programs discussed in this chapter, based on the very adoptable and adaptable *EPIC Framework* presents an immediate opportunity for campus leadership and a direction forward for the future of planning education for sustainability.

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# Chapter 18

## The Collaborative Interdisciplinary Studio

Michael Neuman

**Abstract** This chapter describes a collaborative interdisciplinary studio approach to teaching practice. These studios have engaged students, faculty, and in most cases, clients in real-world problem-solving activities ranging from an integrated plan-design-build urban redevelopment projects to regional scale analyses and plans. We found that integrated service-based learning projects were of benefit to students and communities alike if a specified set of criteria were met at the outset of the studio. Lessons for future pedagogy and research are derived from the findings.

**Keywords** Interdisciplinary teaching · Collaborative learning · Pedagogy · Design studio · Urban planning · Service-based learning

### Introduction

Planning scholarship on and teaching of problem-based learning is increasingly robust. This chapter outlines advances in developing interdisciplinary problem-based learning in the context of studio pedagogy. Studio teaching is perhaps the most challenging and most rewarding environment for actively engaging learners in the practice of place-based problem-solving, not least because it can serve as a “bridge between planning education and planning practice” (Shepherd and Cosgriff 1998, p. 348). Studio teaching is student-centered. It entails problem-solving through design, whereby design should be understood broadly, going beyond physical design of buildings, landscapes, and places to include that of organizations, processes, and programs. Thus, the practices and precepts reported here are not only useful in the context of urban planning. They can be applied in public health, education, social services, public policy, public works, and engineering, among others; where

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ill-structured and complex real-world problems might require interdisciplinary collaboration.

Gutman (1992) identified six shifts in the professional practice of architecture, but in so doing scarcely mentioned interdisciplinary activity. The shift to interdisciplinary has taken place largely since then, in part led by urban planning, which is inherently interdisciplinary. Increasingly, planning and design schools are addressing the need to develop students' interdisciplinary competencies through inter-, cross-, or multidisciplinary studios. While some argue for a distinction among these three adjectives, in this chapter the terms are used interchangeably signifying different disciplines working together and individually on a design problem. In particular, this chapter describes a collaborative, interdisciplinary studio format tested in 1999 and refined over fifteen years engaging students, faculty, and in several cases, clients, in real-world problem-solving activities. Collaborative interdisciplinary studio teaching is unique due to adding layers of complexity by:

- offering opportunities for interaction amongst disciplines for both students and faculty;
- solving multifaceted real world and place-based problems in dynamic contexts;
- working directly with a community-based client or constituency; and
- engaging the community collaboratively in the interdisciplinary processes of learning and design.

When done well, this results in co-learning and co-problem solving by all participants. The account is based on self-reflection and presents the author's attempt to respond to Baum's challenge: that few teachers describe what they do, how students responded, what students may have learned, and what the teacher may have learned (1997, p.21). While there is an abundant literature in the education fields regarding pedagogy, creativity, and problem-based and service-based learning; what I strive to provide here is a truth distilled from long experience which itself is informed by a variety of writings sketched below. Sándor Márai captured this sense in his brilliant novel *Embers*. "... contemporary tracts that spell everything out, absolutely bluntly, while all they're giving you is words and more words, without any articulation of the truth" (2002, p. 111).

## One Teacher's Journey

My own experience in collaborative interdisciplinary studios began at the University of Pennsylvania's Urban Design program, in which a studio was required each semester—four in total. Students were drawn from graduate programs in architecture, landscape architecture, and urban planning. At the time working together with other disciplines was heady stuff, as most of our contemporaries were staying within their disciplines as they earned their degrees. Two rigors: (1) a strict project development method, which was reinforced by theory and methods courses,

coupled with (2) meeting four consecutive hours, three times per week under the tutelage of the studio masters—engendered a common approach. This pedagogy became the baseline of all studios that I later taught. However, influenced by developments in planning practice and pedagogical theories, I also sought to improve the original concept by adding the following four aspects:

- Integrating ecology and sustainability into urban design;
- Collaborating closely with community members and interest groups;
- Intervening at a larger scale—urban, metropolitan, regional—beyond single projects;
- Planning and designing at multiple scales at the same time.

Overall, the studio pedagogy builds on contributions to professional and planning education theories by Schön (1983), Spain (1992), Zeisel (2006), Lang (1983), Sanoff (1978), and Freire (1970). This epistemological integration occurred over decades, as my own learning and practice of studio teaching co-evolved along with my colleagues and students. Schön's relevance to the conceptual frame stems from his "reflective practitioner", one who deeply reflects on the problem while designing options to solve it (1983). Spain's contribution is to articulate and defend the multiple links between teaching, research, and service, as a step toward their integration (1992). Zeisel's design thinking approaches design not as an outcome, but as creative thinking that is used to solve complex problems that logic alone cannot (2006). Lang's behavioral approach highlights the human factors that are central sources of evidence to serve the process of design, and as central criteria by which to measure the designed outcome's success or failure. He argued for the importance of including studios and workshops in urban planning curricula at a time when it was not common to do so (1983). Sanoff presents an early framework and method for integrating urban design and architecture with community participation (1978). Freire's "pedagogy of the oppressed" refers to empowering the disenfranchised in community-based learning, which can be extended to design and planning (1970), an advocacy approach in a different context akin to Davidoff (1965).

## **Transforming Planning Challenges into Learning Objectives**

The challenges facing planners in practice can be modeled by these advanced collaborative, service-based urban planning, and urban design studios by turning them into key learning objectives such as

1. Understanding complex and constantly changing problems;
2. Gaining multidisciplinary understanding of the contexts and conditions;
3. Instilling multicultural understandings of the contexts and participants;
4. Team building and team work to guide analyses and solve problems;
5. Crafting multidisciplinary and multiscale analyses and solutions.

The first point, understanding the problem, often occupies up to half the learning time and in fact continues throughout. The second point refers to how to attain the understanding upon which the analysis is based. “[E]ach individual discipline is of limited value in responding to the range and diversity of contemporary urban issues” (Mostafavi 2010, p. 29). Multidisciplinary understanding is hard because of the careers and methods invested in discipline-specific approaches. Forsyth et al. (2000) go as far as to highlight differences among planning, architecture, and landscape architecture. Walls and beliefs need to be breached and bridged. New vocabularies need to be developed and adopted.

The third point refers more to the studio participants than community members. Given the diversity in the cities in which the projects occur, multicultural understanding is central. Like the multidisciplinary challenge, the multicultural challenge entails breaking down received cultural knowledge and building bridges and vocabularies for common understanding. Ways of seeing and learning are ingrained through culture so deeply that students and practitioners seem blind to them unless confronted by other cultures and epistemologies.

Fourth, team building and teamwork, are essential skills to this type of collaborative and multidisciplinary studio and its success, and thus activities in its support are programmed into the syllabus. A supportive mechanism in this respect is that participants from different disciplines meet at the same time and space. A less optimal model is that disciplines approach the problem separately, and come together only periodically and/or at mid-term and final reviews. Supportive leadership in/across departments, schools and faculties is essential in enabling such a learning environment especially if the number of disciplines involved exceeds the typical level of two or three; several of the studios I organized had up to twelve different disciplines involved. Ideally, participants share and learn each other’s perspectives, languages, methods, and disciplines by interaction but the instructor can enhance this by fostering self-reflection and open-spirited dialog and questioning that values mutual respect (Wagner et al. 2014).

Fifth and last, multiscalar understanding mostly refers to urban space and the built environment, ranging from an individual building or parcel, through the neighborhood and district, to the city, metropolis, and region (Neuman 2007; Mostafavi 2010). This spatial context extends far beyond the site and its immediate environs.

We have found that despite the notable challenges to interdisciplinary collaboration, the learning that took place and the quality of the product, as measured in client satisfaction and client use of outputs mitigated the drawbacks and transaction costs as conceived in institutional theory (Williamson 1981)—what (Brand and Rincón 2007, p. 36) called “pragmatic efficiency versus cross-disciplinary fertilization.” In fact, the value added by a collaborative and interdisciplinary approach includes many intangibles stemming from local knowledge and special treatment. While the studio project experiences reported here parallel those of Brand and Rincón’s “six dilemmas” (2007), such “dilemmas” were solved by not seeing them as dilemmas necessary to resolve.

## The Integrative and Interactive Practitioner

Problem-based learning is integrative and interactive by definition. Integrative, in the context of urban design and planning studios, refers to several types of simultaneous attempts at integration, which raises the level of complexity dramatically. One level of complexity includes community participants: interest groups, community groups, municipal agencies, utilities, transport agencies, school districts, other entities, and individuals. Interactive means not only interdisciplinary interaction, but also direct contact and interaction with the site and the clientele at the grassroots level. This style of learning starts with problem defining: a most critical step in problem-based studios. In place-based studios, learning from the place and its peoples is paramount. Ethnographic, demographic, socialstatistical, site analysis, and participant-observation measures are among the methods here.

The goal of community-learner interaction is a Freirian ideal, in which the community members become co-learners (Freire 1970). A guiding principle for the students was to “listen to what the city and its citizens were telling them”. This was made explicit at the outset, and reinforced throughout. It mirrors the finding of Sletto, who reported that learner disposition is key: “learning to embrace the unexpected through service learning” (2010, p. 403). Furthermore, we found in several instances outcomes paralleled Sletto’s observation in another respect, that of building client capacity.

In all cases the studios used the McHargian “layer” method of ecological analysis (McHarg 1969), implemented using GIS and other imaging software, expanded to include infrastructural, social, and other factors as conditions warranted. Gazvoda (2002) elaborates on the incorporation of this method into studio teaching for ecological data.

## Project Selection Criteria

A good project can make for good learning, a great project can make for great learning, and a bad project can make for bad learning, all other things being equal. What criteria can be applied at the outset when selecting projects for collaborative and interdisciplinary problem-based studio learning? Following the idea that the more challenging the project task (Eraut et al. 2004) and the more open-minded and engaged the community, the more profound the learning, I sought to find for example, regeneration projects involving the poorest and most diverse participants (see case studies on the City of Bryan, Texas and West Berkeley, California) and environmental challenges in the most conflicted arenas (see case study of New Orleans rebuilding after Hurricane Katrina).

These environments and conditions were far outside the normal experiences of the typical student, so that they had to stretch their horizons to understand what they came into contact with. I found that the greater the distance from their comfort

zone, the more they learned, and the more they were able to cast their prejudices aside (after a while, in many cases) and craft interesting solutions. From student feedback, this occurred to the extent where they were able to see the place “freshly”, putting aside as much as possible preconceived notions or standard solutions that they may have brought from their own backgrounds and disciplines. Instructor intervention to expose innate biases and contextualize new situations required constant vigilance.

Experience suggests that if there is more than one instructor, then each has to contribute to or fully support the choice of project, the overall teaching philosophy, and the specific approach. Synergy in these regards is vital. If not, conflict and suboptimal outcomes, if not failure, were the result. In addition, having the students and faculty meet at the same time in the same place is a critical, if difficult to achieve, requirement.

Another key criterion was, in most cases, strong commitment from the client and community. This commitment was expressed in two ways—financially and person hours. We received in the majority of the cases between \$20,000 and \$50,000 for a one semester project. In two cases, Palacios and West Berkeley, citizen and interest group participation was particularly extraordinary. In my experience, intensive community participation in studio projects had by far the biggest impact on the students and their learning, compared to typical classroom settings. This was hinted 25 years ago by Alonso, though without stressing community participation: “Current emphasis on studios with an actual client, such as a local agency or community group, both facilitate the incorporation of public service into the classroom and demand academic rigor” (1986, p. 69).

In the cases when there was no explicit client at the outset, projects were more exploratory in that we had more freedom to identify problems and propose solutions. That is, the freedom due to a lack of client constraint was correlated to the level of daring in the analyses and designs in these projects. In my view, it was a prime factor for the studio working on a ‘Regional Plan for new Orleans and Environs’ (case study 1) capturing the attention by the Mayor’s and Louisiana Recovery Authority’s desks, winning awards, and being acknowledged at numerous state, national, and international meetings.

## **Case Study 1: Rebuilding a Sustainable Gulf Coast: A Regional Plan for New Orleans and Environs**

This studio project had no client. Rather, this project grew from the needs occasioned by the dramatic devastation of hurricanes Katrina and Rita in 2005. The Louisiana coast is extensively developed and scarred. Its natural functions have been degraded over 150 years by well-intentioned but ill-conceived engineering proposals to tame the environment (McPhee 1989). These preexisting conditions worsened the impacts of the storms. Studio participants settled on a point of view to have inquiry and designs

based on a locally informed synthesis of ecology and social justice. This amounted to “listen to what the place was telling us,” as well as to respect the common wisdom offered by nature itself. Given the history and ecology of New Orleans, rebuilding for the future must be sustainable to avoid the disastrous consequences of another hurricane that is sure to come. The designs sought to balance a range of concerns that would support both local and visiting populations, that would respect human, ecological, and economic concerns, and that would benefit current and future generations. The studio was supported by experts from the Louisiana Universities Marine Consortium in Cocodrie, and a New Orleans based architect.

As a result of extensive readings and a 3-day site visit along the entire Louisiana Gulf Coast, students, and faculty members became convinced that the causes to the devastation were rooted principally in regional and environmental factors. This differed markedly from the culprits singled out by the media and officials—the levee failures. Our recognition became a strong motivator to explore the intertwined ecological and cultural dynamics of the region, in order to produce plans and designs that would serve both people and nature.

## *The Pedagogical Process and Outputs*

### **Intensive Interdisciplinary Interaction**

Faculty members and students from six disciplines were represented among the nineteen students: urban planning, urban and regional science, architecture, civil engineering, construction management, and geography. There was one senior honors student, five doctoral students, and thirteen master students from ages 20 to 40. The students treated each other as peers, regardless of their background and met in the same room at the same time each class period. It made collaboration in and outside of class easier.

Guest presentations by coastal and sustainability experts reinforced that single-discipline solutions of the past contributed to much of the devastation, and that multi- and interdisciplinary collaboration is essential for remedies that are sustainable far into the future.

Students mostly worked in groups of two, some worked individually. Intensive discussions each session allowed thinking to evolve from disciplinary to interdisciplinary over the semester. Discussion evolved sometimes as a smooth flow, sometimes in starts and stops. The latter was often the result of not letting go of discipline-bound learning. Focusing on a pragmatic task, like choosing the five goals of the plan listed below, most revealed to the students the value of collaborative and interdisciplinary interaction in reaching consensus, rather than exhortations and readings that point to its need. The goals required grasping, acknowledging, and weighing tradeoffs among perspectives and values. In so doing, student bargaining became a valuable pedagogical tool to promote interdisciplinary learning.



- To restore the functioning and integrity of ecological habitats while maintaining coastal water quality and species diversity;
- To rebuild New Orleans as a regional center for Southern Louisiana and beyond;
- To build new flooding and storm surge defenses for the city and environs;
- To enhance the safety, appearance, functioning, and sustainability of infrastructures critical to the rebuilding of the city and environs;
- To rebuild viable neighborhoods using ecological planning methods and sustainable housing designs.

## Integration

Using integrative thinking processes and practices also aided this pragmatic pedagogical approach to encourage different disciplines to work together. Two examples illustrate this principle. First, the field trip revealed a glaring gap in organizing and managing the recovery: Who's in charge, a student asked? Nobody, at least in any effective manner, was the answer. A student commented: "A Coast Guard officer [who was put in charge]—what does he know about city and ecological planning? Infrastructure? Rebuilding?" Students struggled mightily with the question of who coordinates and mediates the "alphabet soup" of agencies at all levels government.

The students' understanding was reinforced by readings and collective in-class interpretations of the media revealing that the interorganizational blame game had much to do with disciplinary turf wars. This led to the realization that their policy and planning proposals had to overcome this limitation and be crafted collaboratively. Frequent in-class presentations and constructive criticism in a nurturing learning environment (that is, beta-testing in a peer forum) that encouraged lateral thinking and boundary spanning ideas were key pedagogical techniques employed to further integrative thinking.

The second example of integration involves the selection and use of analytical tools. The students grappled with a near-Herculean task: to integrate McHargian suitability analysis (McHarg 1969), Formanian patch analysis (Forman 1997), and risk analysis into a single comprehensive spatial tool at regional scale. As all three individual analytical tools are based in different disciplines their integration was possible only through collaboration. The pedagogical technique employed for this effort was exploratory collaborative research directed toward the integration of existing single-discipline tools. Much trial and error moved this forward.

## **Multiscalar Innovative Solutions**

The final products were a land suitability assessment, an urban and regional analysis, scenarios, and specific plans and designs at six scales:

1. Region—the eastern half of the state’s coastal region south of Interstate 10
2. New Orleans metropolitan area
3. City of New Orleans
4. Neighborhoods
5. Blocks
6. Structures

## ***Learning Outcomes***

The students found as a direct consequence of the wide scope and multiple scales of analysis that the flooding problems were not only caused by engineering mistakes, faulty design and construction of flood protection infrastructure. The degradation of natural systems, such as the coastal wetlands and barrier islands, due to human interventions, including oil and gas pipelines, shipping channels and canals, and channeling of the Mississippi River, significantly contributed to magnitude of the storms’ impacts. Because we undertook a regional analysis instead of merely building or neighborhood analyses conducted by most other experts after the storms, we found regional causes adding to local consequences. All this conditioned our learning and my pedagogy profoundly.

Overall, circumstances other than instructor effectiveness may have been the decisive factor. As one of the worst natural disasters in the nation’s recent history, so fresh and close, it clearly revealed and reinforced the need for our pedagogical approach—novel and exploratory, collaborative and interdisciplinary. Every outside datum supported the students’ emergent approach to the project. Additionally, a tremendous degree of self-motivation carried the day. Knowing that their work would end up on leaders’ desks (FEMA, Louisiana Recovery Authority, governor, mayor) was another key motivator. The final report was a 150 page, full color document in A3 (11 × 17 inch) size, titled *Rebuilding a Sustainable Gulf Coast: A Regional Plan for New Orleans and Environs*.

## **Case Study 2: Collaborative Urban Design—West Berkeley**

The prototype of the collaborative interdisciplinary studio described here was tested in 1999 for the West Berkeley Neighborhood Development Corporation (WBNDNC) in northern California. In contrast to Case study 1, the author and a colleague were approached by a client to come up with solutions for a rapidly changing neighborhood, Berkeley’s poorest, which became the topic of a planning and design studio project at the University of California at Berkeley’s Department of City and

Regional Planning. Since World War Two the area had a significant black population, and since the 1960s a significant Latino one, alongside the historic white base. In the 1990s, affluent residents and high-end businesses moved in. The new development centered around Fourth Street, in what has since become a specialty shopping magnet for the region. Social and land use conflicts ensued, and the tasks of the studio became to use urban planning and design to resolve some of them.

## *The Pedagogical Process and Outputs*

### **Intensive Interdisciplinary Interaction**

Twenty students from twelve different disciplines from across campus enrolled: undergraduate, graduate, and doctoral. The students, aged 18 to 50, met in the same room at the same time each class period. Students got media (video and web-design) training through an innovative technologies grant from the university. They applied these skills in delivering products to the client: a web site, a large format graphical display of the neighborhood's history and visions, and two videos, one of which was for the Berkeley Ecology Center. Students' other proposals included a redesign of the railroad underpass for the Redevelopment Agency, multi-lingual marketing materials, a community organizing campaign for the Friends of the Parks organization, a "history walk" public art project, a family-oriented recycling workshop, oral histories, social programs, transit designs, urban and housing designs, as well as environmental remediation.

Students worked in pairs or small groups, with no discipline being represented more than once in each. A few worked individually during parts of the term. The quality of the interdisciplinary collaboration was mixed, especially at the undergraduate level, as they had not enough time to get firmly grounded in a discipline. At the same time, undergraduates tended to exhibit a greater degree of openness to collaboration for the same reason. At semester's end, all students reported a benefit from the interdisciplinary exposure.

The instructors dedicated vast amounts of time to the studio, averaging 10–20 hours each per week, collaborating with the students, the client, and other community groups and interests. Furthermore, we stressed creativity and insisted that students address real problems, as related by the community, meaningfully. What kept the project flowing smoothly were two management strategies employed by the instructors. The first was a strict 'survey before plan' method—gather data straight from the source, analyze data, create options, evaluate options (truncated), and produce preferred proposal. The second was a strict agenda (schedule) for the semester with set delivery dates, within which creativity, improvisation, and adaptation were relatively free to proliferate. Perhaps the greatest obstacle for the instructors, and as a result our greatest inventiveness, was to deal with, especially in group work, different learning stages (doctoral, masters, undergraduate) and discipline-bound learning styles (design, rational, historical/narrative, for example).

It would be worth researching whether our experience—the relative openness of undergraduates to interdisciplinary collaboration compared to graduate students being grounded in a specific discipline—can be generalized as this was a singular experience for the author (all other examples were postgraduate studios). Another aspect to test is the more general efficacy of combining undergraduate and graduate students, an approach which is frowned upon if not prohibited in many institutions. The results of such studies may have important ramifications for the way we think about undergraduate and graduate education.

## **Integration**

Regarding integrating our classroom studio with neighborhood interests, we found that networking with multiple organizations, only some of which were listed above, amplified rather than diluted the degrees and depths of participation, energy, commitment, and the spreading and eventual acceptance of the students' work. The students led and performed the networking, an empowering practice which enhanced learning. Many forged solid working relationships, with some lasting well beyond the semester. The client was intimately involved throughout, and fortunately receptive to this approach and on good terms with many of the other organizations. These factors led to consensual outcomes of integrated thinking about the problems, their diagnoses, and their proposed solutions.

The students spent a good amount of time on site in the neighborhood during the studio. This ranged from 5 to 20 hours per student per week, depending on the interest of the student and the stage in the semester. They observed local conditions and met with local residents, businesses, and interest groups in an endeavor to integrate local perspectives into their own. In general, the students improvised as best they could, an attitude that grew in a positive sense as the semester progressed. The students learned that flexibility and curiosity in the face of unknowns, especially with regards to a rigid or preconceived structure imposed by faculty at the outset, were valuable learning stances. Younger students were more timid in this regard at the outset. Some were more receptive and exploratory, while others preferred more direction and how-to instruction. The instructors spent much of their time and energy learning about and responding to this difference. This became a true challenge that required close attentiveness to each individual, each group, and to group and intergroup dynamics. It highlighted the nature of student-centered learning. This was especially true as it took much more time to engage with students individually and in small groups, in a customized way, in contrast to addressing all the students en masse.

## **Multiscalar Innovative Solutions**

The final products were prepared considering four scales:

1. Subregion—the eastern San Francisco Bay Area
2. City of Berkeley
3. Neighborhoods
4. Blocks

## ***Learning Outcomes***

The mutual learning that came from community interaction and community presentations, especially the final, attended by approximately 100 persons, made a notable impact on the students and the community. The community had experienced other student projects, mostly surveys or studios without direct involvement. Our participative stance was appreciated to the extent that various community leaders and members routinely joined our thrice-weekly studio sessions. The final presentation in the neighborhood's public library in the evening (to maximize attendance) included two city councilpersons, the mayor, and representatives from community and government groups, along with businesses, citizens, and the press. As a result, students saw how a broad range of sustainability principles and practices were perceived in the real world and enhanced their understanding of how multidisciplinary knowledge sets get used in community-level practice.

From a learning perspective, the instructors had no prior experience in directing such a large variety of students at differing stages in their careers. Consequently, we improvised tenaciously throughout, working closely with students to help them select and craft their products. The twin pressures of a firm deadline and quality deliverables to be presented in a large public forum asserted themselves throughout. Having two instructors increased learning opportunities enormously. As a teaching team we supported a greater variety of interests, and provided an option for whom to work with more closely, if they chose.

The client benefited from the variety of proposals produced, and perhaps made most use of the interactive web site, then a novelty for a community development corporation (CDC), and the business plan. Other public and community entities made use of other proposals. The CDC's reenergized civic capacity was a result of the students' enthusiasm and contributions and a gain that lasted several years. In fact, it was part of the intent of engaging a university design studio. This gain was spread through the community by using the innovative technology grant from the university to teach community members how to create websites. Later, a number of students completed other projects for more than half a dozen other West Berkeley community groups to further their proposals, attesting to the strength of the ties generated during the studio. The WBNDC won one of the first of the University of California, Berkeley's "Chancellor's Campus Community Partnership Awards" shortly afterwards.

### **Case study 3: Collaborative Urban Design II—Downtown Bryan**

An advance to the West Berkeley prototype was elaborated in 2001. The nominal client in this case was the City of Bryan, Texas. The project attempted to conduct an integrated plan-design-build urban redevelopment studio for the north side of downtown. This was the poorest neighborhood in the city where whites, blacks, and Latinos lived and worked. Forty students and three faculty members from five disciplines—architecture, urban planning, landscape architecture, construction science, and land development—worked on the project. The students did not meet in the same room at the same time each class period. The construction and architecture students, who comprised the bulk of the students, worked in different spaces at different meeting times, which was problematic for full collaboration. They came together only at critical periods, such as the start or end of each main phase.

There was no CDC and the city, while it provided data, was skittish in that it saw this project as competition for an official (city-sponsored) downtown urban design plan it was about to embark upon with a consultant team. As a result, the students responded to faculty direction and their own interpretation of the needs of the community and the site instead of community or city input. This project had the least amount of community participation of the projects reported here, even though the design and planning students spent much time downtown observing and gathering data, as well as talking informally to residents and businesses.

#### ***The Pedagogical Process and Outputs***

##### **Intensive Interdisciplinary Interaction**

The task for the faculty was coordinating the plan-design-build aspect. While design-build does exist in professional practice, it presumes advanced preparation and experience. Plan-design-build is normally done in sequence professionally, most often by separate firms or teams with separate contracts, leaving coordination to the developer and/or principal construction manager. Our experiment to integrate the three was decidedly mixed. On the positive side, the architecture and construction professors were able after a few weeks to partially resolve schedules and to fit the outputs of the design work as the inputs to the construction documentation in satisfactory fashion. On the downside, planning, landscape architecture, and land development work, more analytical in nature (especially in the first half of the semester), was too late to adequately inform design and construction. Nonetheless, the students got to sense the difficulty of interdisciplinary collaboration, especially the timing challenges.

## **Integration**

Largely lost as the semester progressed was the sustainable community redevelopment aspect, which had been a guiding principle for the studio, especially for the architecture and construction science students. This occurred because the research findings that the planning and other students derived on this topic arrived too late to be embedded meaningfully in the learning by the construction and architecture students. The interdisciplinary teams envisioned at the outset were not formed, owing to the rigor and specificity of design and construction outputs. This left little time for student collaboration and posed a critical limitation that left important learning objectives unfulfilled.

## **Multiscalar Innovative Solutions**

The final products were a property suitability assessment, an analysis of the site and its immediate context, construction costing, and schedules, and specific plans and designs at four scales:

1. City of Bryan downtown area
2. North downtown Bryan district
3. Blocks
4. Structures

## ***Learning Outcomes***

The key learning was what not to do. As affirmed by all other collaborative interdisciplinary studios I have conducted save this one, including those not reported here, having all the students and academic staff meet in the same place at the same time for the entire term is vital to success. Furthermore, the timing of the outputs in a typically phased multidisciplinary approach, where the outputs of one phase (a study or design, for example) become the inputs of another phase, tends to be linear and sequential. Students take these outputs-cum-inputs as a given. Thus, they do not learn as much from them as if they were to struggle with them themselves. This is opposed to inter- and cross-disciplinary, where different disciplines collaborate in teams or small groups simultaneously throughout. When students and staff do not meet and work together, the ‘inter’ of interdisciplinary is lost.

Another important lesson was the limitation of not directly engaging in an explicit and ongoing manner with the City of Bryan, or other key organizations. As a result, we were operating on assumptions and our own biases. The appropriateness of our analyses and proposals was thus questionable. Nonetheless, despite these significant limitations, the students and perhaps more significantly, the instructors were exposed to the scheduling and programmatic needs pertaining to

interdisciplinary teaching and learning, and the potential benefits they confer. Important bureaucratic impediments embedded in the different degree programs curricula, and the status quo of the teaching modus operandi, proved to be significant in hindering collaborative, interdisciplinary learning.

#### **Case study 4: Redfern-Waterloo Urban Design Strategy, Sydney, Australia**

In 2011 there was an opportunity to test whether these concepts could be translated to a different teaching and institutional environment. In concert with my co-instructor Nigel Dickson, relevantly a graduate of the same urban design program at the University of Pennsylvania, we conducted a semester-long advanced urban design studio for the Redfern-Waterloo district of the City of Sydney.

The future of Redfern-Waterloo was the topic addressed by students in the Master of Urban Development and Design Program of the University of New South Wales. This urban design studio prepared an urban design and plan for the rapidly changing Redfern-Waterloo district in the heart of the Sydney metropolitan area. Its long-term vision addressed housing, jobs, transport, infrastructure, community, environment, and open space issues. Strategically positioned in the cross hairs between Sydney's Central Business District and the Airport, and the Universities of Sydney and New South Wales, Redfern-Waterloo was poised to become a choice location of businesses and residents. This has been coming to fruition in the years since the studio was completed. At the same time, Redfern-Waterloo has an existing population of elderly, aboriginal, immigrant, and young residents that occupy public and private housing and take advantage of a wide range of public services and facilities. The operating assumption of the studio was that these residents and their housing and services need to be maintained and improved in the future, even in the face of new residents and businesses, and of rapid, up-market real estate development pressures.

There are a number of factors, from global to local that condition future prospects in this contested terrain, which the students addressed in an analysis:

- The significant amount of vacant and underused land and buildings;
- The need to improve the existing public housing and facilities;
- The population and job growth projections over the next generation;
- The acute need for affordable housing to meet existing demands and to support future growth expectations;
- The imperative to develop truly sustainable solutions in the face of climate change, peak oil, and the widening gulf between the rich and poor.

Given these factors, this urban design studio grappled to prepare a proposal with several differing scenarios for the future that, through the intensive direct participation of the residents and other stakeholders, channeled the students' interests and enthusiasm into creating opportunities and improving existing circumstances for the residents and businesses. The analysis and design studies prepared by the students entailed



how to accommodate impending growth in a balanced way while allowing the existing residents and social housing to remain in substantially improved circumstances.

## *The Pedagogical Process and Outputs*

### **Intensive Interdisciplinary Interaction**

Twenty three master students from six countries and seven disciplines investigated local and contextual conditions of the Redfern-Waterloo district, approximately one square kilometer in area. The brief was accomplished in six phases, according to “classic” urban design phasing:

Phase 1—Sketch Concept Plan

Phase 2—Analysis of the site and context

Phase 3—Preparation of four scenario structure plans

Phase 4—Detailed testing of four scenario urban designs

Phase 5—Individual precinct studies—for six selected areas of the district

Phase 6—Refined master plan and individual precinct studies

Three half-day long presentations spaced throughout the semester in which the students presented their efforts, were open to the public. One hundred individuals attended both the first and third presentations, approximately seventy attended the second. Their input and feedback was explicitly sought, and these sessions lasted for hours due to lively debate. In addition, on one 3-day weekend, the studio was open to the public all day each day, during which residents and professionals collaborated directly with students. The middle presentation displayed the results of a week-long charrette that assessed four scenarios for the future of Redfern-Waterloo. This intensive charrette was co-instructed with Professor Jonathan Barnett, then director of the Urban Design graduate program at the University of Pennsylvania. In the final presentation, students presented the designs and plans for the overall district as well as the six precincts, totaling 40 lineal meters of A1 panels, plus a 2.5 × 3 meters scale physical model, and a 2-minute three-dimensional video of an animated fly-through of the design.

### **Integration**

In the spirit of collaboration with a diverse and historic community, the post-graduate students began their inquiry. They took on the challenge of urban regeneration in Sydney’s public housing estates that have deteriorated over time. Explicit themes of local sensitivity and sustainable development guided their analyses and designs. They endeavored to “listen to what the place and the people were telling them.” This attitude was crucial in a neighborhood with a conflicted past, very diverse population, and rich history replete with heritage buildings. Nonetheless, taking these factors into account, they applied a fresh look to shape a

better place for the residents in the future, addressing multiple dimensions of social, economic, physical, and environmental regeneration of a problematic district.

The resulting plan is a comprehensive proposal for a continuously designed environment. It creates three distinct residential neighborhoods, each centered on a core of community facilities and public parks. The designs increase the density sensibly and sensitively, keeping the neighborhoods humane and livable. The urban design plan attempted to be integrative across many dimensions.

The plan sought to integrate all modes of transport into the urban fabric as it simultaneously proposes new modes of transport, including a light rail line down Elizabeth Street, bicycle lanes, and connecting the existing Airport to Central rail line with a new underground station along George Street at the Waterloo Green area. It integrated community facilities and open spaces into the heart of three key neighborhoods currently without vibrant centers: Poet's Corner, Waterloo housing blocks, and further south in Waterloo in an area the students named Waterloo Green. Further integration in the realms of sustainability included a comprehensive, gravity-based natural stormwater management system, a comprehensive trigeneration scheme for the entire district, and suggestions for decentralized wind and solar power at as many building sites as feasible. These attempts at comprehensiveness and integration resulted from a multiscale and multidiscipline approach.

### **Multiscalar Innovative Solutions**

The final products were a property suitability assessment, a comprehensive urban and partial regional analysis, planning/design scenarios, and specific plans and designs at five scales:

1. Subregion—the eastern half of the City of Sydney, from the Central Business District (CBD) to the airport
2. City of Sydney
3. Neighborhood
4. Blocks
5. Structures

Four different scenarios were developed:

1. a minimal cost, minimal intervention strategy with public domain improvements
2. a low cost, low intervention alternative with moderate density and light rail
3. a medium cost, medium intervention with higher density and both light rail and heavy rail, with a station at Waterloo Green
4. a high cost, high intervention option with highest densities and both heavy rail (new station at Waterloo Green, major upgrade to Redfern Station) and light rail, and a major convention center occupying Waterloo Green.

The pros and cons of these scenarios were assessed comparatively along a range of social, economic, infrastructural, and environmental attributes and impacts.

## ***Learning Outcomes***

Three outcomes of the students' designs were: (1) the complete redesign of Redfern Station and its surroundings, including completely revised bus and taxi access, one new bridge and one redesigned bridge across the rail tracks; (2) the design of a new light rail line through the district; and (3) the redesign of a road, changing it from a through road to an attractive destination composed of a tree-lined boulevard. Taken together, these three add to the public transport capacity and urban quality of Sydney.

Judging from the students' end-of-term written evaluations, verbal comments, and long-term communications with the instructors years after the studio's completion; coupled with comments from the stakeholders as well as the Faculty of Built Environment's leadership suggested that the intention of interdisciplinary collaboration was achieved. Nonetheless, there were issues which mitigated against richer collaboration and local engagement which were not overcome by the studio. These included rigid disciplinary backgrounds and methods brought by the students and the stakeholders. Another was less engagement by international students with lower language abilities and lack of confidence in interacting with local residents and officials. Finally, local political and turf battles of long standing in the neighborhood colored the students' perceptions of issues and therefore solutions. Yet, as an advanced studio, the students already had one semester of interdisciplinary collaboration "under their belts," as it is a key theme of the degree program.

Overall, however, the perceived value by the students and stakeholders, as expressed to the instructors, of the studio being run in a highly participative and engaging manner, was to pull the stakeholders together and get a measure of agreement about the issues in play. By using planning and design techniques to start an open public discussion about different scenarios, a rich, multi-stakeholder public dialog was achieved. An advantage of a student studio is that the students are independent, full of ideas and hope, while taking a fresh look at a long-studied area. The students were "thinking big" while at the same time incorporating realism.

## **Accolades and Four Public Presentations After Completion**

Based on the quality of their plans and designs, the students were invited to present their work to the City of Sydney Council, the State of New South Wales, and the general public. Numerous staff members from diverse departments and ministries attended these 90 min presentations:

1. Sydney Town Hall on December 15, 2011— ~ 20 attendees
2. NSW state government offices on February 15, 2012— ~ 15 attendees
3. Master of Urban Development and Design (MUDD) 17 Exhibition on March 14, 2012— ~ 450 attendees
4. LuminoCity Exhibition, Faculty of the Built Environment, November 15-22, 2012— ~ 7,000 attendees

The students' urban design plan won a competitive grant from the City of Sydney to fund the production of a full color report, which was distributed to the stakeholders in hard copy and PDF format. Additionally, the project won a teaching award from the Planning Institute of Australia, New South Wales chapter.

## **Insights for Teaching Collaborative Interdisciplinary Studios**

The students in the studios reported herein stay in touch and often report that they applied the methods learned in studio to their later learning and work. In more than a few instances they stated and provided written comments that the studio experience was “unforgettable”, “a once in a life-time opportunity,” and “changed my life.” These types of comments were also representative of most of the other collaborative interdisciplinary studios led by the author and not reported here.

### ***Building Institutional and Civic Capacity***

The building of institutional and civic capacity is a critical contribution of community-based service learning. The planning academy would benefit immensely if this underreported facet of problem-based service learning were to be assessed rigorously by research in the future. Community benefits included establishing and strengthening strong and weak social ties, establishing and strengthening lines of communication, forming committees, and developing common bonds, values, identities, and language. These were the key components in the evolution of civic and institutional capacity for the client of the West Berkeley studio reported here. Building these capacities is a lasting value-added outcome of collaborative service learning. Some literatures call this organizational learning (Ebrahim and Ortolano 2001). Via positive-feedback, organizational and institutional practices change through learning (see also Argyris and Schön 1996). The students saw capacity-building in action, and often remarked on it in end of semester evaluations.

### ***Using Images to Convey Analyses and Proposals that Crystallize Community Thought and Action***

We found that the principles espoused by Al-Kodmany (2001) and Hack (2015), to bridge local and technical information with visualization, to be very effective. Thousands of student-generated illustrations and designs spurred debate and

crystallized thinking about the current conditions that they analyzed and the future proposals that they presented. They were most effective when presented and discussed in public, and more recently, posted on the web. The final presentations to the public from some of these studios included over 120 lineal feet of wall space covered with A0 (3 × 4 foot) or larger design panels, plus power points, videos, full color A3 final reports, and occasionally a physical scale model of up to 2 × 3 meters in size. In other words, these studios highlighted the importance of design-based planning, including design-based analysis. The importance of using visualization in community planning was underscored by Sanoff (1978, 1991). Our findings further accentuate those of King et al. (1989) stressing the effectiveness of visualization as common language. This approach reinforced the image-based learning of physical design students, and introduced planning and other non-design students to the intricacies of images and their pedagogical and communicative value.

### *Collaborating Throughout the Entire Process*

When students were taught from the outset, and shown convincing examples, that collaboration is positive and effective in solving problems in inventive yet useful ways; then we found them to accept collaboration with different disciplines and community members and groups as normal. End of semester public presentations, peer awards, student evaluations, and in many cases implementation by the client reinforced the value of collaboration in many cases.

Essential to this type of interaction is to ensure that students and faculty from different disciplines meet in regular studio and class sessions. This amounts to a scheduling issue that may require significant advance planning not only by the faculty members involved, but administrators as well. Furthermore, it requires more than conviction and attitude conveyed consistently by the faculty. It also necessitates specialized training for faculty to facilitate creative interdisciplinary collaboration, which when these four words are taken together represents a cohesive set of techniques that are integrated by the instructors and inculcated to the students.

Support from faculty leadership, co-instructors, and the students themselves, who were usually more than excited to engage in ‘business not as usual’ and allow their inquisitiveness and creativity to bloom, were all essential for whatever outcomes and learning was gained. This support is not a given. Institutional regulation or resistance by faculty members bound to tradition and discipline may be responsible for the as yet limited institutionalization of this approach in planning curricula.

## Seven Keys for Collaborative and Interdisciplinary Studio Learning

Overall, we found that the more the following conditions pertained and were stressed by the studio leaders, the greater the learning and satisfaction reported by the students and clients.

- **Multiple Disciplines—Working Together Simultaneously in Place and Time**

Landscape architecture, and urban planning and design are the disciplines most often found in the interdisciplinary mix in built environment studios. While they are themselves inherently interdisciplinary, they share more commonalities than differences, namely the built environment, being design disciplines, and their own interdisciplinary nature. To be fully interdisciplinary, we suggest that planning and design studios need to engage a fuller range of disciplines and approaches. A single discipline acts like the adage commonly attributed to Mark Twain: “when all you have is a hammer, all your problems look like nails.”

- **Multiple Scales—Dealing with Multiple Scales Simultaneously**

Planners increasingly realize that analyzing and planning at multiple scales at the same time is integral to their craft. Yet other disciplines do not, or are just beginning to operate in this mode. The inter-penetration among all scales from hyper local (the building or site) to the global goes beyond formulations like “glocal” (Swyngedouw 1996). This presents a leadership opportunity for planners and planning academics to introduce other disciplines into this type of thinking and acting.

- **Problem-Based Learning—Addressing Real-World Problems**

Selecting current problems of concern to the community is critical to project selection and success, especially as measured by implementation. At the same time teachers must link the problems to theory and methods. Sometimes this entails criticism or redefining of theory and its role in learning, a vital learning outcome itself. In grassroots processes, community members become co-learners with the students and faculty, to create a co-learning community, broadening the learning environment of the classroom, and thus multiplying its value.

- **Integration—Synthesizing Scales, Interests, Disciplines, Theories, and Methods**

Integrative, in the context of urban design and planning studios, refers to several types of simultaneous attempts at integration (they are always only attempts), which raises the level of complexity dramatically. Integration is a problem in

itself that is part of the problem-based learning paradigm, at least as practiced in urban planning. Managing pedagogical complexity via integration is a profound challenge to any instructor, regardless of experience, talent or intelligence; because of the exigencies of a short semester, the complexity of urban projects, the limitations of resources and knowledge, and the vagaries of the students and clientele, just to name a few. Nonetheless, integration is a hallmark of planning and is best imparted as a learning experience in a studio or workshop (Lang 1983).

- **Local Knowledge—Interacting with Local People and Places**

A guiding principle made explicit at the outset, and reinforced throughout each studio was to “listen to what the city and its citizens were telling them.” It was, according to student feedback, consistently ranked as an important, if not most important precept gained. In the internet age when most knowledge seems just clicks away, and the web itself a crutch easily entangled in, “being there” out in the community was seen by all learners as having no substitute.

- **Context—Regional and Global Factors Affecting Local Conditions**

Context is not only the immediate surroundings. “Inner context” turns context inside-out, and makes us cognizant of details that affect the bigger picture. Importantly, context in part embodies local and regional identity, critical to constituent identification with the planning process (learning process). Citizen identification is the prerequisite to supporting the planning process. Context also refers to being aware of institutional and political considerations. Doing so successfully goes far in enhancing civic capacity, and building institutional capacity. Contextual awareness is foundational to learning, judgment, and professional maturity.

- **Sustainability—Increasing Value Across the Board in the Long Term**

Value here also includes pedagogical value. By its virtue of being a theme-in-action, sustainability singlehandedly addressed all the aims of this list, as (partly) evidenced by the case studies. These include the privileging and use of local knowledge, the understanding and addressing of diverse contexts, the integration of knowledge and skills, the ecological view embedded in multiscale intelligence, and drawing upon a wide range of disciplines and synthesizing their attributes. In these senses sustainability is an incubator for integration and innovation.

Some programs save this type of studio or project until the final semester of study, in order for students to learn the individual “building blocks” such as site planning, cities, infrastructure, ecosystems, collaboration, etc. Other curricula favor immersion into interdisciplinary from the start. A valuable piece of research on learning performance outcomes would be to empirically test and

comparatively assess, using common criteria, different curricular approaches to interdisciplinary studio learning.

In sum, all seven of these conditions point to the multiple opportunities for planning educators to exercise leadership with respect to other disciplines in the conduct of place-based and service-based learning. Moreover, they represent the keys to expanding the prospects of all of planning's constituencies, so that long term, comprehensive, contextual, multiscalar, and multidisciplinary become habitual criteria for assessing and enacting urban planning and public policy. If instilled, our graduates from these types of studios can extend these methods to practice, and the communities they serve.

In problematic political and economic times, justifying planning to our constituents, including deans, provosts, presidents, legislators, industry, stakeholders, and the public at large becomes acute. Convincing accounts of community-based collaborative service learning that improves places, builds capacity, and expands the learning horizons of citizens, student, and teachers alike can provide a valuable means.

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# Chapter 19

## Planning Education with and Through Technologies

Jennifer S. Evans-Cowley

**Abstract** Planning educators are increasingly using technology in city and regional planning programs. This chapter covers the many ways in which planning classrooms have changed—from the expansion of online content to fully online degrees. Students and faculty are now able to more effectively engage in the challenges of cities and create plans that are responsive to community needs. This includes everything from social media, gaming, and mobile-enabled plans.

**Keywords** Technology · Online education · MOOC · Gaming · Virtual reality

### Introduction

City and Regional Planning is about looking ahead. This future orientation encourages planning students and faculty to be on the cutting edge, including using technology to help share education. At universities across the globe, planning education is responding to the latest technology tools. Technology has resulted in significant changes in the way the public receives information and interacts in planning processes. This also means substantial changes in the way planning faculty teach, students learn, and the public engages in planning.

This chapter covers the many ways in which planning classrooms have changed—from the expansion of online content to fully online degrees. Students and faculty are now able to more effectively engage in the challenges of cities and create plans that are responsive to community needs. This includes everything from social media, gaming, and mobile-enabled plans.

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## Communicating Through Technology

The way that people come to understand the world around them, and how we consume information, has changed as a result of technology. Questions are now answered by asking Siri or Google. Globally, 30% of the population has mobile broadband subscriptions—that is 2 billion people—this is forecast to reach seven billion people by 2018 (Ericsson 2013). The average American is spending 34 h per month using the mobile internet on a smartphone, compared to 27 h per month on a personal computer (Sterling 2014). Indonesians and Saudi Arabians spend an average of 5.1 h per day on social networking sites/apps (Marketing Charts 2013). Similarly, Americans' social media usage is extensive, spending an average of 15 h per month on Facebook and almost four hours on Twitter (Sterling 2014). But this social media usage is more than just catching up with friends; it is also spent finding, collecting, and digesting information. Many in the online community scroll through their social media feed and, based on an interesting headline, may choose to follow a link to an article that may lead them to a video, or a technical article. This means, our consumption of information has moved from a linear book where one starts at the beginning and makes ones way through, to a pyramid where the reader chooses how deep to delve into the matter, starting at a high level and meandering through different levels and media formats.

This has critical impacts on the way planners are educated. In a social media-rich world, planning students must be social media-savvy and able to communicate in ways that encourage the public to consume and engage in planning processes. Planning students at Portland State University created a website (<http://connectcascadelocks.com>), online surveys, a Twitter feed, and a Facebook page to engage the public in identifying strategies to increase economic development for the community of Cascade Locks through a regionally integrated recreational trails network (Portland State University 2013).

Students at Tufts and Emerson College have used Second Life to engage planning students and communities in creating visions of their communities future—this 3D online gaming environment provided a creative way to engage the public (Evans-Cowley and Hollander 2010). Students in Hamburg, Germany used NextCampus as a game to engage the public online in evaluating alternatives for moving the university campus within the city (Poplin 2012).

The Oslo School of Architecture and Design worked with the City of Oslo, Norway to create PlanAR, an app within the LayAR<sup>1</sup> augmented reality app. This app allows a user to hold up their phone to a building and see the various permitted developments. For example, seeing that an apartment building added new balconies in 2010 (Evans-Cowley 2014). In Dunedin, New Zealand, students and faculty at the University of Otago investigated using augmented reality to aid in public participation in planning processes. They created an app that allows for proposed

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<sup>1</sup>LayAR is an augmented reality creator that allows people to use the platform to create a personalized augmented reality experience <https://www.layar.com/>.

developments to be visualized on top of existing real-world sites. This allowed members of the public to provide comments on the proposed development being able to get a realistic idea of what is being proposed for a site (Allen et al. 2011). In New Orleans, a partnership between the Royal Netherlands Embassy and Greater New Orleans, Inc. resulted in the production of the Greater New Orleans Urban Water Plan as an iPad app (Kingdom of the Netherlands 2013).

Planning students expect to be immediately connected with each other and with content. Smartphones provide accessibility and immediacy to questions that once would have required an all-nighter in the library. Yet students must also become creators of information. The ways in which students disseminate their knowledge offer the opportunity for co-creation. In the past, students would write essays sharing what they learned about the history of a place. Today, they can write and publish a Wikipedia entry. For example, the Wikipedia entry for Hungarian Village in Columbus, Ohio was created by a planning student (Wikipedia 2014). The result is not just knowledge for the student, but the creation of knowledge for a broader community.

Researchers have been studying the ways in which students learn when technology is integrated into the classroom. During the 1990s and 2000s the adoption of technology in the classroom was slow, with faculty having concerns about technical support and ease of students learning technology (Godschalk and Lacey 2001; Lawhon 2003). However, the research supports that digital learning tools can aid in student learning. Studies have found that integrating digital tools were a useful augmentation to learning for planning students, ranging from online discussion, augmented reality, and citizen science (Cooper et al. 2007; Hollander and Thomas 2009; Ishii et al. 2002; Meng and Bararuddin 2001; Shapira and Youtie 2001; Willson 2000).

## The Digital Classroom

The terms “professor” and “lecturer” will soon become antiquated in much the way “reader” has. While the title of “reader” is still used in the United Kingdom, Australia, and New Zealand, the title’s history was based on the person who read the book aloud, at a time when books were not easily accessible. The broad availability of technology has led to a variety of different models of educational delivery. The idea, for example, of a professor or lecturer standing before the class and professing is fading. If not entirely changing as in the practice of ‘flipping the classroom’ (see following section below), faculty are increasingly using technology to alter the lecture experience, by integrating social media and instant feedback technology into their lectures and making them more interactive. Professor Riggs of California Polytechnic State University reports keeping students engaged by having them tweet questions and keeps a hash tag on each lecture slide so he can identify questions in real time.

The studio, which has been and still is, an important pedagogy of every planning curriculum, is likewise being modernized by technology infusion enabling increasingly international collaborations or co-operations between practice and students. One unique studio model is at the Kwame Nkrumah University of Science and Technology (KNUST) in Ghana. KNUST's Town Planning program had a long-standing partnership with the Offinso North District—a rapidly urbanizing region. The Offinso North Region was able to successfully cultivate a long-term partnership between the region, KNUST and The Ohio State University (OSU) (Knowlton School of Architecture 2014). The partners created a multi-university studio—with OSU introducing new technology that allowed the region and KNUST to expand their planning efforts. With limitations on electricity and internet speed, the universities found technology solutions that maximize effectiveness. The studios have a web page for sharing work and, through email, students communicate regularly. The key technology is a set of iPads and a GIS app that were acquired through a small grant at The Ohio State University. With a mobile technology tool, students at KNUST and OSU were able to rapidly create the first digital map of the region during an onsite field experience in Ghana. Students were able to collect survey data on housing, health care, and commerce. A portion of the iPads stayed at KNUST so that data collection can continue and students on both sides of the globe can analyze the results.

Many faculty members are also increasingly experimenting with novel tools that change teacher and learner interaction in a variety of ways. Emily Talen of Arizona State University is using VoiceThread, a tool that allows the professor to share information between lectures and real-time discussion (VoiceThread 2014). Talen describes how students can post their comments with video, audio, and images rather than just text in a chat room or post a thread to a discussion forum. This allows for the discussion to become more interactive and engaging.

## Flipped Classrooms

Flipping the classroom has gained in popularity. The flipped classroom is a pedagogical model where lectures happen outside of the classroom and classroom time is used for exercises, projects, and discussions. The lecture component of classes is posted online for students to view prior to class. These lectures are typically shorter, lasting a few minutes to explain a key concept. A key goal of flipping the classroom is to use class time for students to inquire, test their skills, and interact with faculty and students. This means the role of the professor flips as well, focusing on facilitating learning and coaching students in their learning.

For students, the benefit is that they can capture and understand lecturer materials easier. When a lecture is given in class, the student may miss a significant point. With on-demand lectures students can access the content easier and go back to lecture content, ensuring that they grasp key concepts. It's also very helpful to be able to refer to material later in the course. In many courses, concepts build upon

each other and if a student misses a concept they will struggle later in the course. By having on-demand videos, the students can backtrack to where they have the learning gap. For example, Katherine Neese, a professor at Kansas State University, delivers all of her planning methods labs via video. This allows students to move at their own pace, spending more time when needed in order to learn a particular concept. Laura Novo de Azevedo, a Senior Lecturer at Oxford Brookes University, provides online lectures that students can listen to while outside the classroom. This allows students to explore urban spaces and hear about the principals of urban design while walking through the city (Oxford Brookes University 2014).

William Riggs with California Polytechnic State University uses ExplainEverything and iMove to screencast his lectures prior to class. He finds this particularly useful in his GIS course. He then uses class time to focus on group interaction with activities such as a group wiki creation, interactive blog posts, and lightening quizzes using REEF, a tool that works on mobile devices and computers. “I have been frustrated that I have not had enough time in class for students to practice the skill and to get feedback on their ideas and how they develop them,” said Ruth Steiner of the University of Florida. She decided to flip her research design course, which is intended to help students gain tools to prepare a Master’s thesis. She uses many in-class exercises that allow students to deepen their understanding.

## Digital Texts

The availability of digital texts has decreased the cost and increased the ease of access to planning knowledge. Elizabeth Sweet at Temple University developed an e-textbook for her Development and Globalization course (Sweet 2014). Texas A&M University is using a free digital textbook titled *Planning Ideas That Matter: Livability, Territoriality, Governance and Reflective Practice* as part of the University’s planning theory course (Sanyal et al. 2012). At some universities, libraries make digital books available, such as at the University of Massachusetts including *The Global Cities* reader and the same is true at The Ohio State University, *The Federal Government and Urban Housing* is available for students to access through the library (Brenner and Keil 2006; Hays 2012). Faculty at Columbia University report increasingly seeing students choose e-books over print books, with students choosing the book format that works best for them. These e-books cover a wide variety of topics, for example *There Goes the Hood*, *Research Design*, and *Applied Statistics for Public Administration and Nonprofit Management* (Creswell 2013; Freeman 2011; Meier et al. 2011). And authors are increasingly publishing books that come in print and digital formats, such as Norman Tyler’s *Historic Preservation: An Introduction to Its History, Principles, and Practices* (Tyler et al. 2009).

While students in the classroom are reading digital texts, they are also learning to create them. The average citizen won’t wait for a massive PDF document to

download on their phone or other mobile device. Students at The Ohio State University created a Kindle and Apple iBooks version of a regional sustainability plan as the final product from their studio (Plan for Opportunity 2013). This accessible format was embraced by community leadership who found the multimedia format a great way to be able to show the big picture and then dig deeper as people ask questions about the plan (Evans-Cowley 2014).

## Digital Content

While digital texts enable students to gain access to a textbook, there are a wide variety of other materials that are used in supporting learning in planning courses. There is an enormous opportunity to tap into the extensive planning content available online. The ease of access to content allows faculty significant flexibility in designing courses that best fit curricular needs. For example, The Technical University of Dresden and The Ohio State University host an annual joint lecture with students and faculty from both institutions, coming together to focus on a presentation and discussion around sustainability. Hosting a joint discussion takes synchronous coordination which can be a challenge due to time differences and logistics. Many universities are focusing on accessing on-demand content. The University of New Orleans requires that all instructors provide for continuity of instruction via online tools as a hazard mitigation strategy. Each faculty member is expected to use an online system for their course materials. Faculty report how this emphasis on hazard mitigation has led to a significant and robust use of online teaching. There are limits to accessible online content and this content should be placed in the context of the course itself so that students understand how case studies from Asia could be adapted to a European context and vice versa.

Planetizen course offers University subscriptions, allowing students to access a wide variety of short courses. These can be used to supplement existing course content. For example, Professor Bernadette Hanlon at The Ohio State University is using a Planetizen course titled “Healthy Food Systems: Planning Production Facilities” as part of her undergraduate studio that is developing an urban agriculture zoning ordinance for the City of Columbus, Ohio. Hanlon notes the course “is extremely useful for this class because it lays out some of the direct benefits of urban agriculture and offers great examples of different cities who introduced new zoning ordinances to facilitate urban agriculture within their jurisdictions... The online course is a nice short overview needed to introduce our students to a complex topic.”

Other organizations have created online modules as well. For example, the Lincoln Institute of Land Policy offers a mix of distance courses such as Land Use and Property Rights in America, Resolving Land Use Disputes, and Local Communities Adapting to Climate Change (Lincoln Institute of Land Policy 2014). MIT’s Open Courseware provides anyone access to dozens of urban studies and

planning courses. For example, people can explore courses as various as Big Plans, Infrastructure and Energy Technology Challenges, and Sensing Place: Photography as Inquiry. Those interested can watch lectures, review assignments, and explore the syllabus (MIT 2014). American University of Beirut, Texas A&M University, and the University of Michigan have started YouTube channels to post short videos to help students and the broader community learn (American University of Beirut 2014; Texas A&M University 2014; University of Michigan 2014). These efforts help to build knowledge and capacity among a broader community that may not be enrolled in a university.

The World Bank Institute offers online course on Sustainable Urban Land Use Planning (The World Bank 2014). Federal agencies in the United States have worked to develop online educational materials, such as the National Oceanic and Atmospheric Administration and Federal Emergency Management Agency (NOAA 2014). The American Planning Association Chapter and Divisions webcast series archives its lectures on a wide range of topics on its YouTube channel, allowing anyone to access the content. For example, a lecture on The State of Takings After Koontz has attracted more than 6,000 views (YouTube 2014). UN Habitat offers an online resource, known as the Global Urban Lectures, containing 20 to start (United Nations 2016).

## **From the Online Course to the Online Degree**

Online education offers a platform to engage leading planning educators from around the world. For example, an expert in low-impact development teaches for the University of Washington onsite and The Ohio State University online, allowing for delivery of an outstanding course through multiple universities. It also allows faculty at an institution to have the flexibility to teach from anywhere. For example, Professor Hostovsky, of Catholic University of America, cites how he taught Bicycle and Pedestrian Master Planning while traveling internationally.

One question commonly heard in the educational community is how to deal with authentication of student identity. At the University of New Orleans, all students are required to visit the New Orleans campus for a photo identification (ID). This photo ID is then attached to the registration system. When an instructor sees the list of who is registered for the class, they also see the picture of the student. This aids with in-class authentication. For purely online teaching, faculty members are encouraged to use Skype or other live sessions as a way to see their students and authenticate who is participating in the class. Professor Thompson, of the University of New Orleans reports how many faculty have the students sign an honesty pledge at the beginning of the course. In addition, Professor Thompson has students go out into the community and take selfies in the neighborhood as one method of ensuring that the students are in fact doing the field work and that they are themselves completing the assignments.



## *Online Courses*

More and more planning schools are offering opportunities for students to learn online. A number of universities are offering online planning courses, including

- Alabama A&M University
- Tufts University
- The Ohio State University
- University of Massachusetts, Boston
- University of Washington, Tacoma
- University of Waterloo.

The School of Planning at the University of Waterloo developed online courses through the University's Centre for Extended Learning. These courses, such as *Methods of Social Investigation for Planners and Planning Paradigms and Theory*, attract both current graduate students and professional planners. Faculty report that professional planners, in particular, prefer the online courses because it saves the time to commute to and from the University of Waterloo campus.

At the Catholic University of America, faculty can only teach an online course after they have completed a course on how to teach online. This focus on pedagogy and practice allows faculty to develop their skills in advance of the online teaching experience, while many other universities offer faculty the opportunity to work with educational technologists who assist in developing online courses and negotiate their way through the various technology tools.

Other faculty are seeking to scale their online teaching to a massive scale. Massive Open Online Courses (MOOCs) provide the opportunity to access a wide variety of subjects, ranging from those of mass interest to those on specialized graduate-level subjects while earning a certificate of achievement or course credit (Beaven et al. 2013). In 2012, Coursera was launched as a platform for MOOCs. "Ohio State is experimenting with the Coursera model to see how we can most effectively use this technology to enhance our approach to education. Our primary goal with Coursera, as with every teaching and learning initiative, is to promote an exceptional student experience. We think Coursera has the potential to do just that," states Wayne Carlson, vice provost for undergraduate education (Evans 2012). There has been significant national and international dialogue about the role of MOOCs and whether they should be offered for credit. Five of Coursera's courses are approved for course credit by the American Council on Education (Lederman 2013). And a number of institutions are closely looking at the acceptance of transfer credit, with acceptance for transfer credit of the assurance statements of organizations like Pearson partnering with Udacity to provide final examinations in a Pearson testing center (Udacity 2012; Young 2012). And some institutions are accepting MOOC course credit, such as Antioch and Arizona State University (De Santis 2012; Lequerica 2016; Kolowich 2013). Virginia Tech University and The Ohio State University partnered to take a course on technology and planning and offer it for credit to planning students at each university, as well as for non-credit to

anyone in the world who wants to take it through Coursera (Evans-Cowley et al. 2014). A number of universities are now offering planning-related MOOCs including (Coursera 2014a, b, c, d):

- Designing Cities, University of Pennsylvania
- Planning and Design of Sanitation Systems and Technologies, Ecole Polytechnique Fédérale de Lausanne
- Villes africaines: une introduction à la planification urbaine/African cities: an introduction to urban planning, Ecole Polytechnique Fédérale de Lausanne
- Re-Enchanting the City—Designing the Human Habitat, The University of New South Wales

There are also MOOCs on topics that would be of strong interest to planning students such as Introduction to Sustainability offered by the University of Illinois at Urbana–Champaign and Future Cities offered by ETH Zurich (EdX 2014).

### *Online Certificates*

Universities have found that success in online teaching has led to significant student interest in completing online certificate programs. These cover typically—but not always—specialist areas within urban planning, such as

- Community Planning, Northern Arizona University
- Community and Regional Planning, University of California Riverside
- Development Planning, Curtin University
- Town and Country Planning, Leeds Metropolitan University
- Community and Economic Development, Pennsylvania State University
- Creative Placemaking, The Ohio State University
- Urban Sustainability, The George Washington University
- Geographic Information Science, University of North Dakota.

Student numbers and diversity can be comparatively higher than in residential programs. The Ohio State University’s online certificate program in Creative Placemaking supports, for instance, 50 students from five countries, including Colombia, The Philippines, New Zealand, Egypt, and the United States. The faculty for the program are distributed as well. The 10-month certificate program includes a mix of courses, entrepreneurship sessions, and a studio. The courses are delivered asynchronously through readings, discussions, assignments, etc. The entrepreneurship sessions are conducted by video conference. In order to complete the certificate program, students are required to prepare a creative placemaking plan or evaluate current creative placemaking efforts (Ohio State University 2014).

## *Online Degrees*

It is now possible for prospective planners to complete a full planning degree online. This can include an accredited planning degree or degrees in allied disciplinary areas. The University of Florida offers an online master's degree in urban planning (University of Florida 2014) with a specialization in sustainability, allowing students to focus on creating sustainable communities. Students take two 8-week courses per semester and complete the 52 credit program in 3 years. Curtin University, Australia offers an online Master of Urban and Regional Planning curriculum, including opportunities to work on real planning projects and engage with planners. Students can choose to obtain a completely online degree, or mix on campus courses with online courses (Curtin University 2014). In the United Kingdom five universities, including Leeds Beckett University, London South Bank University, University of Dundee, The Open University, and the University of West England, partnered to create a Master's of Science degree in urban and rural planning (University of Dundee 2016), which builds on an earlier conventional distance learning program.

Students can also choose to pursue planning-related graduate degrees. The University of Washington offers an online Master of Infrastructure Planning and Management Program (University of Washington 2014). This program focuses on infrastructure systems such as food, water, energy, and communications, helping students take a system-based approach to problem-solving. Students focus on hazard mitigation and emergency management of infrastructure systems. This interdisciplinary program intends to bring together professionals from urban planning, emergency management, public health, business, and geography to focus on infrastructure planning and management. Pennsylvania State University offers a Master's in Community and Economic Development Master's program through their World Campus. Students complete 30 graduate credits, including a capstone experience, in order to earn their degree. Students explore topics such as leadership, community structure, and regional development (Pennsylvania State University 2014).

While there are a number of options for obtaining an online degree at the graduate level, there are limited options for those interested in an undergraduate online degree. Murdoch University offers a Bachelor of Arts in Sustainable Development. This new degree started in 2014 with students able to choose online or in classroom options for learning. Students take courses on topics such as cities and sustainability, economics and sustainability, and global and regional sustainability (Murdoch University 2014).

Kansas State University, Iowa State University, North Dakota State University, South Dakota State University, and the University of Nebraska at Lincoln collaborate through the Great Plains IDEA to offer a community development degree. This 1-year professional degree offers the opportunity for faculty across the

institutions to collaborate offering this degree program (Great Plains IDEA 2014). Students choose a home institution, through which they apply and register and then are able to complete the curriculum online with classes delivered by faculty at each institution.

## **The Future of Planning Education**

The future education of planners (and other subjects for that matter) could be radically different from the education model today. Could future planners be educated entirely off-campus? The Minerva Project is aiming to replace college with a campusless model. Minerva is an accredited university that includes a residence hall. The basic concept is that students from across the globe live together in a residence hall in a given city. Each year the students would move to a different city, for example, living in San Francisco, Berlin, Buenos Aires, Mumbai, Hong Kong, New York, and London. All of the students take their classes online with instructors across the globe. These are synchronous interactive classes that actively engage students in reflecting on course material and lectures are banned. Students then use the city where they are living as their field experience. Minerva gives the example that students can tour Alcatraz in San Francisco with a prison psychologist. The expectation is that the students will use city parks and recreations centers and local cultural resources for their extracurricular activities (Wood 2014). Minerva expects students to embrace the city as part of their studies.

One can imagine that this type of educational model could work well for students studying city and regional planning. The opportunity to use the city would allow for experiential learning on a daily basis. The ability to move from city to city would allow students to understand and compare the cultural context in which cities are planned. One can also imagine a model where students are able to build their own planning degree pulling from the resources from institutions across the globe, for example, forming a Master's of Urban Planning degree with an international development focus that would include classes on African planning taken from African universities and Asian planning courses taken from Asian universities. Or an emphasis in water resources planning including courses the Netherlands and other coastal nations.

The future of planning education regardless of its construction will allow students to more easily access planning resources enabled by technological tools. This will also translate into practice, allowing planners and the public to more easily share information and engage together in planning processes. We must be cognizant that there is a digital divide, whether that be limited access to the internet or limited access to electricity. While technology enables broader access, it also threatens to leave some at a disadvantage. As faculty integrate technology into the classroom they should also be integrating discussion of who has access to the technology that we are using. And students must learn more than just how to use the specific tool, they need to understand how to analyze the data generated. For example, Urban

Social Listening teaches students how social media data can be used to understand social attitudes and to use this analysis to inform policy and development decisions (Hollander et al. 2016).

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# Chapter 20

## Educating Code-Switchers in a Post-sustainability World

Barbara B. Wilson and Timothy Beatley

**Abstract** To prepare future leaders to tackle the rapidly changing challenges of climate change, complex inequality, resource depletion, etc., planning education and research must draw from new languages, new knowledge, and new partnerships. Planning education and research should privilege skills of code-switching and incorporate learning through change-oriented projects that lead to more reflective and empathetic outcomes.

**Keywords** Resilience · Regeneration · Biophilia · Code-switching · Applied research

### Introduction

If you ask most graduate students on the first day of school what planning is, and why they choose this professional path, many of them speak to their desire to make positive change, to help solve (what they will soon refer to as) ‘wicked’ problems, to be a steward of the earth and its people. They use phrases like systems thinking, access, and fairness. They see planning as Campbell’s (1996) triangle would have it, right in the center of the tensions of the built world—navigating our way toward some balanced reality. Problems change fast, as do the available solutions. Although there are currently a staggering number of programs touting pedagogy in ‘sustainability,’ we contend that those weaving in opportunities for learning that is applied and interdisciplinary are producing the most compelling educational and research experiences in this ever-evolving field of practice.

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Sustainability has become a very charged concept—at once almost useless in its prolificacy, but at the same time critical to the field because of its ubiquity. It is one of the most powerful, ethics-driven planning concepts ever to take hold in the marketplace. The certification revolution gave green building public appeal so great it carries monetary currency. This revolution brought the United States Green Building Council and the Forest Stewardship Council, among others, into the parlance of the development community, and continues to push the standard for development, with integrated metrics like the Enterprise Community Partners Green Communities Initiative and the Living Building Challenge. More nuanced approaches to the topic now populate the profession that move beyond stasis as a goal, including regeneration, resiliency, and biophilia. But because the language of sustainability has such a presence in the public eye, it is still the parlance we use to describe degree programs, research centers, and other pathways to knowledge production we value in the field.

Yet, with so many inspiring theories and models of practice now reaching beyond the potentially dated concepts of sustainability, many students do not leave their graduate programs feeling sufficiently prepared to become the stewards of change their programs in ‘sustainability’ promised. The problems remain wicked, and they morph into new beasts as innovation quickens its pace in this digital age. We posit here that the best models for teaching and researching sustainability actually do three things: (1) extend far beyond the concept of sustaining existing resources for future generations; (2) engage deeply with other disciplines to create code-switching critical thinkers; and (3) focus on change-oriented projects that foster contextualized learning and lead to more reflective and empathetic outcomes.

## **Beyond Stasis: The Nuanced Language of a Post-sustainability Planning**

The development and planning of the built world are incredibly important factors in the health of our planet. The world population is currently growing at the rate of 75 million people per year (U.S. Census Bureau 2010), and with most of those people now living in metropolitan regions, the careful development of human settlements becomes an increasingly important focus of study. Recent government reports estimate that the building industry is responsible for 50.1% of U.S. annual energy consumption (Rawlins and Paterson 2010), 10% of all water use (Solley et al. 1995), the utilization of 40% raw materials, and 39% of the greenhouse gas emissions each year (Energy Information Administration 2009). Despite global efforts to dissuade this pattern of consumption, to date no singular approach has proven sufficient to remediate the strain the built world places on the Earth. For almost three decades global leaders have been convening with the hopes of developing action plans that revolutionize physical planning practices and reverse the effects of buildings on the environment.

In order to alter the terrifying trajectory laid out by the Club of Rome (1981) in *Limits to Growth* (which seems to be holding true this far), we must move beyond the 1983 Brundtland Commission's definition of sustainable development to 'meet the needs of the present without compromising the ability of future generations to meet their own needs.' This vague, anthropocentric, yet inspiring definition does not provide practitioners with any tools to realize its goals. Other approaches to the concept have not emerged with more poignant results. In a review of architecture literature employing the term sustainable development, Guy and Farmer (2001) identified six competing definitions of the concept, *eco-technic*, *eco-centric*, *eco-aesthetic*, *eco-cultural*, *eco-medical* and *eco-social*, that sometimes overlap but never converge into one holistic approach. Indicators are commonly employed to measure the effectiveness of strategies to achieve the goals of sustainability. These metrics often espouse a comprehensive approach towards sustainable development, typically grouping the indicators into five main areas: (1) energy and air quality, (2) water, materials, and waste, (3) land, green spaces, and biodiversity, (4) transportation, and (5) livability, human amenities and health. Yet, these metrics all leave the standard of practice at the level of stasis and very rarely encourage innovation that integrates these concepts through more creative approaches to traditional planning problems. Even when measures allude toward production instead of consumption, the language of sustainability and the bounds of green building certification still limit the frame of practice to resource allocation instead of reparation. No professional vocabulary has yet emerged in the field to supplant sustainability, but perhaps more importantly, terms are solidifying in planning parlance that extend the general ethos of sustainability to another level of maturation. Using sustainability as a baseline, concepts like resilience, regeneration, and biophilia take the notion much farther.

With the increase in frequency and strength of extreme climate events across the globe, the term resiliency has become quite popular. Resiliency has matured to be a term inclusive of both planning policy and social structures that contribute to adaptive capacity—new ways of thinking as interconnected social, economic, and ecological systems that allow for positive growth in the face of great challenge (Godschalk 2003; Paton 2006; Walker and Salt 2006). Much in the same way that mitigation has been seen as a minimum standard, but not a long-term goal for disaster planning, resiliency is viewed as an integrated approach that elevates the standard of practice beyond both mitigation and sustainability in this era of climate change (Beatley 2009). The language of resilience, and the research and educational initiatives it is beginning to spawn, are an important evolution of sustainability studies. Notions of integration, creativity, and equity are inherent in the frame of resilience, and this pushes the discourse on climate change towards a much more forward thinking course of action. It opens up new ways to consider policy and planning practice that marry sustainability with disaster studies, and provides a productive space for planning research and education to connect with the other disciplines working in those two spheres to collaborate.

Regeneration is another term used by planners, ecologists, and architects to describe something beyond sustainability. Often used in the context of economic

and/or environmental sustainability, regeneration has been employed in the planning literature as a synonym for revitalization to describe positive repurposing of land in shrinking cities for more sustainable ends such as food production (Pallagst et al. 2009). In environmental design literature, regeneration implies something ‘beyond conservation to the restoration of resources’ (Windhager et al. 2010, p.117). And finally, the architecture world has adopted the moniker to describe design processes with a “focus on the uniqueness of ‘place’ and the creation of a story of the place, with the local community playing a crucial role in developing this story” (Hoxie et al. 2012, p. 65). To that end, Berkibile and his colleagues at BNIM have partnered with the USGBC to create a tool they named REGEN that is meant to serve as ‘a repository of information and a framework, that are capable of stimulating dialogue among a diversity of practitioners and decision-makers with different disciplinary backgrounds and viewpoints’ (BNIM 2014). The team explicitly resists defining the term, and instead focus on the potential for inter-connection and synergistic thinking within the dialogue the tool is meant to provoke. In addition to process, the REGEN tool is designed to facilitate a ‘perspective that is systems based, place-based, and oriented on positive outcomes.’ Similarly, the Living Building Challenge aims to create an evaluation system that empowers buildings to function more like flowers—‘a building informed by its bioregion’s characteristics, that generates all of its own energy with renewable resources, captures and treats all of its water, and that operates efficiently and for maximum beauty’ (International Living Future Institute 2014).

Some of the difficulty with the prevailing concept and language of sustainability is that while they admonish us to do important things, such as use less energy and water, they do not necessarily inspire positive change or paint a clear picture of a desirable future towards which individuals and communities (and planners) might work. In this way, biophilia and biophilic design and planning represent an important and helpful evolution. While not the first to use the term, Harvard biologist E.O. Wilson is typically credited with coining the term biophilia, in the way that we use it today. To Wilson, biophilic is ‘the innately emotional affiliation of human beings to other living organisms. Innate means hereditary and hence part of ultimate human nature’ (Wilson 1993, p.31).

Biophilia argues that the human species has coevolved with nature, and therefore that we have a deep need to affiliate with the natural world. We are carrying with us an ancient brain and it is little wonder that we are happier, more productive, more creative, and even more generous in the presence of nature (Wilson 1993). Nature in cities offers the promise of lives that are connected and attentive to the natural magic around us. In some ways the daily and hourly contact with nature that we need to be healthy becomes more difficult to provide in cities, but there is a remarkable amount of urban nature and biodiversity, and many opportunities to design and plan in ways that integrate and restore nature, and that foster connections to the natural world and to each other. And many ways in which planners can take steps to restore and enhance that nature, and rebuild connections to the natural world. Increasingly, the agenda of biophilia is providing tangible guidance about how and in what ways neighborhoods, cities and regions can be designed and

planned to bring out these qualities. So, in many ways this new language and agenda provide a more positive, holistic vision of the kinds of places and communities in which we want to live. Sustainability's vagueness is troubling, but its emphasis on restraints, limits, and stasis is further limiting from a design perspective.

Biophilia offers both a compelling vision of future cities, and a design and planning toolkit for tangible change. While there remain important questions about how we define 'nature,' the evidence of the power of nature is mounting. We know that worker productivity goes up in office spaces with greenery, that recovery in hospitals is faster, and that there are a host of positive physical and mental health benefits from natural qualities and conditions in urban and suburban neighborhoods.

There are clear and important connections between biophilia and public health, and also with resilience. Public health has reemerged especially in the last decade as an important justificatory framework and guiding lens for planners, and the role of nature in creating more healthful urban environments is undeniable. Moreover, we have argued elsewhere that biophilic cities are sustainable and resilient cities (Beatley and Newman 2013). Virtually every action or policy designed to make cities more biophilic, from the planting of urban forests to vertical green walls to sidewalk gardens, will help cities adapt to a future of elevated flooding and extreme weather events, drought, and increased urban temperatures. Biophilic cities create the conditions in which urbanites socialize and form friendships and social networks, helping to address problems of social isolation and arguably helping to address challenges of aging in place. There is evidence now that the presence of nature helps us to be more creative, and more generous, qualities that in turn will help to advance resilience.

Although the language buttressing the concepts of sustainability is becoming stronger and more robust, the concept of sustainability remains important because of its translation power to other disciplines and within the marketplace. Someone may not know what regeneration means in a given context, but millions of stakeholders now understand why they might pay a premium for 'sustainable' development. In order to not succumb to the pressures of cooptation from the marketplace that so heavily weigh on this popular concept, planners must be able to translate these higher level concepts like resiliency, regeneration, and biophilia to their colleagues and partners from other professional spheres. Learning how to become a translator or code-switcher that can lead others toward the highest ethics and practices in the field is a critical skill for this next generation of planners to hone.

## **Creating the Next Generation of Code-Switchers**

There are many barriers to rich interdisciplinary engagement in academia and in professional practice, but language is undoubtedly high on the list of challenges faced in attempts to collaborate across disciplines. As sustainability education and research become more nuanced, interdisciplinary learning will be necessary to

facilitate the integrated systems thinking required to approximate the goals espoused in the concepts above. The skill of code-switching, or the ‘use of two or more linguistic varieties in the same conversation or interaction,’ is an underdeveloped, but increasingly important tool for planners (Myers-Scotton and Ury 1977, p. 5). This skill is of particular importance to those hoping to influence large-scale integrated development projects and major policy initiatives that capture the essence of resilient, regenerative, and biophilic projects in practice. Academic programs are becoming nuanced curators of experiential learning environments that couple students from diverse disciplines to work on multidimensional, professionally inspired problems.

Many planning programs offer inter-, multi- or transdisciplinary learning and research experiences, but few of them stretch their footprint beyond one semester and typically just one class. As universities understand the need for collaborative, interdisciplinary learning to arm our students with relevant skills needed to solve the next generation of global problems, some initiatives overcome the disciplinary silos to develop a broader platform on which transdisciplinary learning can happen in partnership with community leaders or municipalities. Because the University of Oregon’s Sustainable City Year Program is discussed in Chap. 17 by its creators, it suffices to say herein that this program has not only made an influence on their own university and its municipal partners, but also on universities across the nation. Each year the Sustainable City Year team holds a workshop for interested faculty at other institutions and inspired variations now exist at the University of Minnesota, University of Iowa, the University of Texas at Austin, and Penn State University. Below, we elaborate on several other notable models, some exceptional in their incorporation of community-engaged learning, while others are remarkable in their approach to transdisciplinary research, but all of which directly engage concepts of planning in their teaching and research.

### *Portland State’s Experiential Learning Curriculum*

With ‘Let Knowledge Serve the City’ as a university motto, and a robust University Studies pan-university undergraduate program, it is not surprising that Portland State’s Master of Urban and Regional Planning (MURP) program takes experiential learning seriously. What is notable, however, is the rigorous curricular approach they take, and the high-quality planning products this course produces.<sup>1</sup> Experiential learning is not only built into the summative, final ‘workshop’ course taken in the last two quarters of an MURP student’s coursework, but also woven into their core methods sequence. Students take two core planning methods courses

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<sup>1</sup>See Shandas and Messer (2008) for an example of how the undergraduate studies and graduate planning experiential learning courses interface with and contribute to a longstanding community partnership in discrete ways.

—qualitative and then quantitative methods, and apply the skills they are learning in a community-based research partnership that threads through both courses. For instance, in 2011 Ellen Bassett and Jennifer Dill coordinated both methods courses around a partnership with Portland Bureau of Transportation (PBOT) to help collect data that informed an ongoing planning dialogue between the Portland cycling community and those who saw ‘bike lanes as a form of gentrification’ (Ellen Bassett, personal correspondence October 7th, 2016). In the qualitative methods class, students conducted interviews with neighbors about improvements, practiced participatory observation in attendance at the Restorative Listening sessions happening across the city, and conducted a survey of bikers in situ. The quantitative methods course then drew from this data and other applicable publically available data sets to analyze this data towards a variety of different ends, including informing the Race Impact Assessments the City was beginning to undergo. Along with mandatory internships, the methods sequence prepares planning students for exemplary work in their final workshop courses. Student groups select their project from a range of community and municipal responses to a Request for Proposals (RFP), whom have all been told upfront ‘that limited research projects, projects that don’t involve direct contact with and involvement of the public, or projects that don’t create choices for clients are generally not acceptable.’<sup>2</sup>

This workshop project framing and the preparatory curricular infrastructure ensures that, although the teams do not force students to interact with group members from outside disciplines, it does empower them through community-engaged learning that allows them to draw from their research skills, their technical expertise, their local relationships, and the mutual respect they have ideally developed, as well as the skills of cultural competency they ideally developed through previous engaged practice.

Moving from a planning-focused experiential learning model to one that embraces multidisciplinary learning, as well as experiential learning, we now look to the University of Michigan’s College of Engineering for inspiration.

### ***University of Michigan’s Multidisciplinary Design Program***

Beginning as a provost initiative in 2008, the University of Michigan’s Multidisciplinary Design Program (MDP), formerly known as the Multidisciplinary Action Program, is a project-based learning platform that fosters leadership, collaborative learning, and creative problem solving skills in its students. Undergraduate students from across the University can complete a minor through MDP, and undergraduate and graduate students from eleven different colleges within the University regularly participate. The program has two tracks: a university

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<sup>2</sup>For more about this process, and for links to the final products produced by previous workshop groups, go to <https://www.pdx.edu/usp/node/77>.

research center track and a corporate project-based track. In either case students are paired into multidisciplinary teams and given a faculty mentor, a challenge, and a small budget for materials. Students apply for a particular role on a team and are chosen based on skills, interest, and potential, not based on disciplinary backgrounds (Joy Adams, personal correspondence October 9th, 2014). The majority of students come from engineering, but also information, business, and liberal arts and sciences. Recently, the program engaged planning more deeply when they took on the adaptive reuse of an abandoned airport. Fusing the MDP program with another cross-disciplinary initiative that mirrors the goals and structure of Oregon's City Year program—Michigan's Engaging Community through the Classroom—this project team engaged urban planning, public policy, engineering, and public health students. Finding that only 7% of southeast Michigan's waste is recycled and that each year the state spends nearly \$22.6 billion on energy resource imports, the students proposed to transform the old airport into a waste management facility and energy production hub.<sup>3</sup> Their proposal included ideas for transforming the surrounding neighborhood into a thriving, transit-rich community and the research was so well received that it extended into another phase of the partnership.

Although the discipline of planning and its curricular needs are not a focal point of the program, planning concepts are central to many MDP projects and the planning discipline could learn a great deal from the project-based, interdisciplinary learning approaches employed through this program, as well as the tools they employ to ensure high-quality collaborative environments. The program offers short, technical workshops to any participating students to get them all versed in whatever software packages may be needed for their project. The CATME System of online tools allows for a refined platform for collaboration—offering research-inspired tools for student training, team-making, peer evaluation, and meeting coordination support. The program touches over 1200 students per year, and the staff are researching how they might further improve the student collaborative learning experience through systems that allow for anonymous feedback from teammates that spurs positive self-reflection and growth, while also ensuring a high quality product is produced for the client in each year-long effort. Students in the lab become co-authors helping to drive the research process and students in the external client program learn how to scope a project with their client, how to successfully prototype and iterate, and eventually produce a product that benefits the public at large.

Students from MDP are then inspired to become advocates for change beyond their initial experience. For instance, MDP students began a sustainability-focused organization called BLUElab where they pursue philanthropic appropriate technology projects with clients locally and globally. One such project involves the retrofitting of water systems within local homes to meet the Living Building

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<sup>3</sup>See the student's final report at [http://taubmancollege.umich.edu/pdfs/research/mecc/2013\\_Michigan\\_Engaging\\_Community\\_through\\_the\\_Classroom.pdf](http://taubmancollege.umich.edu/pdfs/research/mecc/2013_Michigan_Engaging_Community_through_the_Classroom.pdf).

Challenge, and they are engaging grade school students, local planning and development advocates, and civic leaders to help understand the full breadth of possibilities. Teaching leadership skills, collaboration techniques, and creative problem solving in an interdisciplinary setting, this program exemplifies the types of pedagogical outcomes toward which sustainability studies should strive.

Although inspiring in terms of their ability to empower students to become translators with other professions and to use their planning skills to solve complex problems in real time, these programs do not have structures for long-term relationships between the researchers and community partners. Good ideas from the academy are often inspiring, but proposed in a vacuum without enough feedback loops from partners to tether them to real constraints and influence the systems at play in measurable ways. If teams of researchers invest in one community, classes learn from one another, trust develops with partners so honest feedback can balance grand ideas early on, and compelling research agendas that lead to real change can coevolve. Not all research is meant to directly produce social or environmental change, and there is good reason for why much of research must stay isolated from the dynamics of real life. But herein we argue that when research is explicitly value-laden, and informed substantially by community input, it can play an important role in addressing the complex challenges of sustainability.

## Change-Oriented Research

Both economic and ecological environments change at a rapid pace, and attempting to project a best practice or subject matter as superior over others to answer future challenges would be futile. We will need all types of efforts to answer the dizzying cadre of problems planners engage in this area of study. What does seem to be important, however, is that much of this research be directly relevant to practice. Change-oriented research (Jamison 2001) aspires to do just that, to engage deeply with salient problems in real time and to work with a consortium of local and technical experts to attempt to create new knowledge that addresses problems in a context-rich and reality-tested fashion (Moore and Wilson 2009). Although technological advances will undoubtedly inform the future health of our planet, the local, regional, and international consortiums built around big ideas and the research conducted in relationship to those driving, reality-based concepts will be just as vital. Economist Otto Sharmer sees cross-sector collaboration as key to addressing today's complex challenges (Sharmer and Kaufer 2013). He understands this deep level of collaborative action to create an entirely different way of thinking and deliberating about large-scale problems outside of typical *ego*-laden agendas that leads to a systems approach that produces innovations from 'eco-system awareness.'

In this section, we briefly detail two programs with which we have been involved that embody the change-oriented research concepts described above. Change-oriented research is often activist and/or participatory, which requires



another level of rigor and often limited generalizability beyond the cases in which it is engaged (Hale 2001; Lincoln and Guba 1985). Both cases employ a form of interdisciplinary learning and engage policy-makers and advocates in cross-scalar collaboration with an eye toward new policy or plan creation.

## **Biophilic Cities Network**

The Biophilic Cities Project began at the University of Virginia in 2012, with funding from the George Mitchell Foundation and a \$120,000, two-year grant from the Washington, DC-based Summit Foundation. The Project begins from the essential premise that nature is absolutely essential to urban life, and that future cities must provide opportunities for daily contact with and deep connections to the natural world. The Biophilic Cities Project aims to explore how cities can integrate nature into their design and planning, and in the process foster deep connections to the natural world. Much of the work of the project has occurred through the study of, and collaboration with, a series of partner cities around the US and world. These have included San Francisco, Portland, and Milwaukee, in the US, and Singapore, Vitoria-Gasteiz (Spain), Birmingham (UK), and Wellington (NZ), among others, outside the country.

Following an initial phase of research, a global Biophilic Cities Network was launched in October, 2013, at the first full meeting of the partner cities (in Charlottesville, Virginia).<sup>4</sup> The Network, albeit nascent, has already accomplished much. Largely through the Network's website, and through webinars, e-newsletters, and other virtual means, partner cities and others have exchanged information about biophilic city issues, tools, challenges. Facilitating the formation of a small but growing community of professional planners, city officials, grassroots activists and organizations interested in advancing the vision of biophilic cities. A key goal has been exchanging experiences and insights about what is working and how (and telling the stories of these cities, increasingly through films and filmmaking). The latest chapter in the development of the Network has been the preparation of a draft protocol and set of detailed expectations that will govern how future cities join and participate. A steering committee formed from representatives of the initial ten partner cities is helping to revise this protocol and serving as a sounding board more generally for the emerging work and activities of the Network.

The extent to which the idea of biophilic cities resonates with cities around the world is encouraging and there are many new cities working in some way with the Network. Quite remarkable and encouraging is the story of Birmingham in the UK. Here, in April of 2014, the Lord Mayor officially declared the intent of this city to become the UK's first biophilic city. National coverage of this event, and the conference and discussions that occurred there, was extensive (with an article in the

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<sup>4</sup>For more information about the Biophilic Cities Launch Event, see Beatley (2013).

Guardian) and a number of other UK cities are seeking to become involved. Much work is happening at the grassroots in cities, where individuals and organizations are captivated by the vision and promise of living in biophilic neighborhoods and cities. A new Biophilic DC group has formed in Washington, DC, for instance, with help from the DC Environmental Network and the UVA staff, and was successfully able to lobby the DC City Council to adopt a biophilic cities resolution. Washington officially joined the Network in May, 2016, along with Edmonton, Canada; two high-profile additions. More recently, Pittsburgh has now officially joined and other cities, including St Louis and Austin, are in the pipeline.

This new and compelling model of biophilic cities, and the international network forming around it, suggests some important educational implications to be sure. It reinforces the need for an interdisciplinary education, in which planners learn early on, the languages, perspectives, and ways of working of engineers, environmental scientists, and architects, among others. The new partner city of Edmonton, Canada, presents a wonderful example of the fruits of this interdisciplinary education. Here the city has been implementing an innovative set of design standards and engineering manual that requires the including of wildlife passages in every new road or infrastructure project. The preparation of the manual and guidelines was itself a unique collaboration between engineers, planners and wildlife biologists, and has already resulted in 27 wildlife passages in that city. The merging of engineering sciences and the biological sciences will be an important task for planners in the future.

To fully implement the agenda of Biophilic Cities, and to effectively plan for cities as ecosystems, will require that we teach at least a modicum about landscape ecology and conservation biology, green/living building systems and design, and urban ecology. An essential need for planners to be conversant with the science, terminology, and practices of conservation biology has been recognized and advocated for many years, but the emerging importance of urban ecology, and the creative fusing of biodiversity and built structures and settings (e.g., ‘habitecture’ as Joyce Hwang calls it) suggest the need for more attention here. Also, the emerging research and science about health and mental health effects of cities is a key area of knowledge as well, and students must be versed in an understanding of the psychology of space/place (Roe et al. 2014) and the mental health benefits of nature. The growing interest and importance of natural capitalism and ecosystem services will require some effort to teach planners about the economics of urban ecology (see the report *The Economics of Biophilia*, prepared by Terrapin Bright Green (2015) as a good example of the power of this lens).

The emerging practice of Biophilic Cities and Biophilic Urbanism, then, further reinforces the need for an education that is professionally interdisciplinary, profoundly collaborative and inclusive, and technically sophisticated (e.g., with an increasing need for students to understand and learn how they can model, map, simulate, and digitally represent the natureful cities we aspire to creating).

## University of Texas Green Alley Initiative

Budding out of a community-university partnership grown at The University of Texas (UT) at Austin since 2005, the Green Alley Initiative is a city program engaging ten different municipal departments across Austin. Through a deep engagement with a cadre of community partners in an effort to create a delivery system for sustainable, affordable infill housing in Austin, the team became increasingly interested in the city's extensive network of underutilized urban alleyways. Austin's alleys were originally conceived as infrastructure conduits, but maintenance of these liminal spaces is a source of frustration for both city staff and residents. Furthermore, because of the deep nature of the adjacent residential lots, there are few eyes on the alleyways and most have become places of social and environmental degradation. Austin is also one of the fastest growing cities in the country, a pattern that stresses existing infrastructure systems and contributes to gentrification in the historically Latino and African-American neighborhoods where alley systems are most prevalent.

Originally focused on the propagation of affordable, green alley flats across Austin, after the construction of two award-winning student-design-inspired designs, there was still a strong resistance from some Austin residents to any form of infill housing. A grant from the National Science Foundation funded a series of focus groups and interviews led by Professor Steven Moore that shed light on a fundamental resistance from much of the Austin community regarding density in the central, older neighborhoods. However, when asked what they hoped for their alleys, they described visions of a safer, more walkable, culturally and ecologically diverse alleyway. Understanding that coupled systems for water, energy, nature, and social spaces could accompany such a streetscape, the community-university team found willing partners at the City of Austin Office of Sustainability and Public Works. In order to help residents envision what their alleys could become, the partnership between the City, the University, the neighborhood nonprofit, and the local community design center was solidified in order to redevelop a selected demonstration alley, using regenerative design principles as a prototype of what could be a citywide program.

Action research on how these alleys might be reframed began with the 2011 UT Center for Sustainable Development Public Interest Design program, during which a cross-disciplinary student team performed a community-needs assessment and developed five small design/build alley projects. Following this preliminary engagement, neighborhood leaders selected the demonstration alley in consultation with the City, based on documentation of infrastructure and biophysical conditions and a formal survey of residents' alley improvement preferences conducted by a transdisciplinary studio at UT. The team conducted community workshops throughout the design process to refine scope and design to address community concerns. Designs were then finalized and built as a full-scale demonstration project by another Public Interest Design studio in partnership with alley residents in the summer of 2014. The coupled systems proposed include affordable housing, green

infrastructure, technical infrastructure, and municipal adaptive capacity. The investigation of these coupled systems contributes to the literature concerning gentrification, social equity, resiliency, low-impact design, and sustainable urbanism. City staff cite these demonstration projects (in personal correspondence) as key to their collective learning and aspirations of departmental integration toward value- and impact-focused urban change, which they are applying in real time to Austin's Green Streets program and to their land use code rewrite, CODENext.

A key research assumption in change-oriented research is that academics cannot presume to understand the dynamic interactions between relevant social groups and the biophysical systems they inhabit without the active input of the groups themselves. This type of research is often centered on coalition building efforts—where research is conducted by a collaborating group of interdisciplinary officials, scholars, and citizens who possess relevant local knowledge. The learning feedback loops built into the research are valuable to develop a common language to discuss project goals and assessment, to develop strategies of urban resilience, and to better predict unintended consequences of future interventions.

## Conclusion

As the vocabulary around sustainability evolves past stasis, as disciplinary boundaries of learning and of practice begin to soften, and as research becomes more engaged with and influenced by the challenges of directly effecting social, environmental, and economic realities, the nature of sustainability in education and research will continue to mature. The world is changing rapidly and challenges are mounting exponentially, so the next generation of practitioners need not be constrained by current professional boundaries. Planners must help set new standards for what sustainable development entails and form new language that captures the essence of their ethics. They should be empowered to be code-switchers, being able to identify systemic and acute problems in context and then help build coalitions of actors required to solve those problems in real time.

Education and research in sustainability studies is at an interesting moment. Programs in sustainability studies are many, but the challenges are changing faster than the curricula. Programs that think past the stasis-oriented frame of sustainability, that curate interdisciplinary research opportunities, and that build in pedagogical structures that allow for place-based learning experiences can help students understand the importance of context, of collaboration, and of creative problem solving in their role as planners.

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# Chapter 21

## Are Planning Programs Delivering What Planning Students Need? Perspectives on Planning Education from Practitioners

Roger Caves and Fritz Wagner

**Abstract** In our quest to determine the future needs of planning education, we asked three well-respected, long-time planning practitioners to provide their insights as to what planning students need to excel in their professional careers. These three individuals have all been honored with the designation of Fellow of the American Institute of Certified Planners (FAICP) for their work and achievements in the field of planning. This chapter presents these three professionals' views on their own planning careers and how their experiences in hiring and working with young planners have influenced their views on what university planning programs should be offering, in order to graduate the best prepared planning professionals.

**Keywords** Practitioner perspectives • Planning programs • Academia • Future needs

### Introduction

How are university planning programs preparing individuals for their profession? What subject areas and skill sets are needed for future planning practitioners? Are we providing students with the necessary theoretical, technological, and practical skills they need to succeed in their planning careers? Since 1923, when Harvard University first offered its formal program in city and regional planning, universities across the US have been providing students a wide range of planning courses in history, land use, urban form, theory, ethics, quantitative and qualitative methods, plan implementation, environmental practices, planning law, design, and geographic information systems. Integral to this course work is the planning internship

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that offers students an opportunity to work with public, private, or nonprofit entities on issues that students may face upon entering the job market.

As of 2017, there were 72 master and 16 bachelor degree planning programs accredited by the Planning Accreditation Board ([www.planningaccreditationboard.org](http://www.planningaccreditationboard.org)) in the US; in addition, there are around 38 universities that offer non-accredited planning-related programs. Planning programs are found in a mix of departments and colleges throughout university campuses—in the College of Architecture, Architecture and Planning, Design, Construction and Planning, and Urban Planning and Public Affairs. Programs provide a generalist planning perspective while offering students the opportunity to specialize in such areas as land use, transportation, environmental, small town and rural development, housing, community development, economic development, historic preservation, urban design, and international development.

Planning is inherently an interdisciplinary subject of inquiry, involving a host of different disciplines such as political science, sociology, history, geography, anthropology, finance, statistics, law, and psychology. Thus, we should not think of planning as an isolated discipline. For example, we cannot view housing as simply a building on a lot. We must examine the impact of zoning regulations; the mix of land uses; the sociology of the neighborhood; access to jobs, transportation, and educational opportunities; and a host of public and private amenities that enhance the house's location.

In our quest to determine the future needs of planning education, we asked three well-respected, long-time planning practitioners to provide their insights as to what planning students need to excel in their professional careers. These three individuals have all been honored with the designation of Fellow of the American Institute of Certified Planners (FAICP) for their work and achievements. They are Paul Zucker, FAICP, President of Zucker Systems, San Diego, California; Lee Brown, FAICP, President, Teska Associates, Evanston, Illinois and current President of the American Institute of Certified Planners; and Ben Herman, FAICP, Director, Clarion Associates, Fort Collins, Colorado. The following sections present these professionals' views on their own planning careers and how their experiences in hiring and working with young planners have influenced their views on what university planning programs should be offering in order to graduate the best prepared planning professionals.

## **Educating Planners—Paul Zucker, FAICP**

Let me set the stage for these comments. I started as an architect, received my master in planning from Berkeley, spent 25 years as a planning director in various communities in four states, and have hired 100s (I never counted) of planners. Since 1982, I have consulted with over 170 planning organizations in 31 states, Canada and the Caribbean, have had over 10,000 planners in various courses and seminars, and now consider myself an expert in organizational development and



management. This doesn't make me smarter than anyone else, or more equipped to comment on planning education, but I did learn a lot about planners and planning along the way.

I was at Berkeley when it was considered perhaps the premier planning school in the U.S. with well-known faculty including Jack Dyckman (author of *Capital Requirements for Urban Renewal and Development*, †1987), Barclay Jones, (30 year professor at Cornell, †1997), T. J. Jack Kent (cofounder and first chair of the Department of City and Regional Planning at Berkeley and author of *Urban General Plan*, †1998), Francis Violich, (author of *Cities of Latin America: Planning and Housing in the South*, and *The Bridge to Dalmatia: A Search for the Meaning of Place*, †2005), and Mel Webber (an international transportation expert and author of *Exploration into Urban Structure*, †2006). The debate at the time was the direction for planning and planning education. Some wanted more emphasis on design, which reflected the start of the profession and had a long history in the San Francisco Bay Area. Others wanted new emphasis on social/economic issues. The latter won the day and has been the focus of planning education and practice until recent years, when design has made a resurgence.

At Berkeley our classes were heavy on theory and economics and less on practical skills and application. Dyckman's tests were so difficult that we would work on them in groups behind the scenes and some of the faculty we approached even had trouble responding. Jones, although having a heavy dose of historic preservation, was the leader, along with Dyckman on economic theory. Webber was focusing on transportation. Kent and Violich were trying to keep design and practical planning alive (Kent was a city council member in Berkeley) but they were losing.

At the end of the 2-year program we had a choice of doing a thesis or taking a comprehensive examination; we all chose the examination. It was the most creative examination I have ever seen and should still be used in planning schools today. We were given maps and a list of key events for the San Francisco Bay Area, such as the date of the railroad, earthquake, and key bridges. Then the dates were all shifted. Our task was to create the Bay Area as it would have looked with the changed dates and to support our proposal based on good economic and urban development theory. Only half of us passed.

Looking back, I did not pick up many practical skills in the master's program, but I did get a broad education in theory which I believe has served me well in my career. Theory is important and should be heavy on economics and urban development, with other topics including history, urban design, environment, and even politics. I believe this is the way it should be; skills can be learned on the job. But, in fairness, since I came out of an architecture program, I already had many of the skills that planning departments are looking for. My first job out of architecture school was actually that of a planner. But this may be bad news for new planning graduates. Planning departments are not looking for theory; they want planners with skills who can immediately be productive. This might be in plan preparation, zoning, GIS, transportation, design, environment, global warming, etc. So, although my advice to planning schools and planners is to get a good broad background in theory, each planner should also latch onto one specialty skill that can be used to

get them in the door and get a job while the other planning skills are being learned and decisions are being made about the person's long term future and interests. This could be to continue to pursue a specialty area or to pursue a less-specialized approach. As I see it, the trend is away from specialization and toward more holistic skills and knowledge. This is particularly true for those who want to eventually become planning directors.

Most people, including planners, are hired for their skills. However, in addition to technical skills, most successful planners need good interpersonal skills—writing, presentations, public speaking, and negotiations. This skill set should be worked into planning education. They can be developed through team projects and rigorous critiqued presentations and similar activities.

Most people are hired for who they are. As such, organizations should mostly hire staff for who they are, and not for their skills. It will be hard to convince most planning departments and human resource departments of this approach. I'm not certain what the course work would look like to develop people for "who they are." But college is clearly an integral part of that development process.

For those planners that aspire to be a supervisor or manager, there should at least be some exposure to good theory in the area of supervision and management. In my consulting, I find that a high percent of planners who are supervisors and managers were good planners that were promoted to supervisor. Most have had little training or exposure to supervisory and managerial approaches. While it is difficult to devote much time to supervision and management in a planning curriculum, the topic should be worth at least one course. At the end of one course, the student should at least understand that there is an entirely different world out there for planners that aspire to be supervisors and managers.

Let me summarize what I have been trying to say. Ideally, get your skills at the undergraduate level, maybe even a bachelor's degree in planning. Then get the broad education in a good master's degree program. This may look like the reverse of traditional thinking, but it worked for me with my degree in architecture. This could also depend on a person's bachelor's degree. If it is very broad, then go for the masters at a university stressing planning skills. If the bachelor's had more skill courses, then look for a broad, less skill-based, master's program.

## **What Did the Planner Know and When Did She Know It?—Lee Brown, FAICP**

In a half-joking job announcement by a private planning firm, the skill requirements for a successful candidate were described as "... demonstrated ability to:

- write like William Shakespeare;
- speak like Dale Carnegie; and,
- draw like Leonardo da Vinci."

My characterization that they were only half-joking now reflects what I perceive as their recognition that “planners must be able to communicate well.” It was only much later I learned that they also expected me to reason like Albert Einstein, and solve a puzzle like Alan Turing. Okay, the references date me, but they are still accurate today. The above goes to the heart of the planning profession—“what do planning students and emerging professionals need to succeed as public and private sector planners and what do they need to distinguish themselves from all of the other candidates for the job?”

Planners often suffer from a high degree of self-consciousness and self-circumspection. We constantly seek reassurance that what we do has value, and wonder how we prove our worth. In our self-selection in becoming planners, we tend to be professionals that are not satisfied with assuming the status quo is “good enough”. Often in our self-circumspection, we look at our careers and those of our colleagues, and try to distinguish what worked, and what might we recommend to the next generation of planners who will be facing different circumstances and conditions.

Several years ago, I had the pleasure of hosting distinguished academics from Japan who were seeking to elevate the profession of planning within Japan. They asked quite a number of questions that go to the heart of “what are the critical competencies of successful planners in the U.S.?” I have to admit that I could not reduce it to a very short list, and I’ve been seeking a cogent answer to the question ever since. When I asked colleagues what they thought distinguished successful planners and, therefore, what we should be teaching future planners, their responses fell into the following categories:

- Ability to see the big picture and the interrelatedness of different elements that comprise the physical, political, fiscal, cultural, and environmental conditions of communities and places;
- Creative problem-solving;
- Understanding what makes communities livable and sustainable;
- Ability to articulate and communicate;
- Empathy for residents, property owners, and employees within their community;
- Being passionate about their work and understanding how planning can change our quality of life; and
- Never ceasing to learn more about the practice after they graduate, or when they become certified, or when they are inducted into the College of Fellows ... a life-long-learning profession.

Planning practice encompasses a remarkable spectrum of activities and approaches to problem-solving and decision-making. We use these to create goals, policies, and procedures to address social or economic challenges. At the core of planning are shared values in individual and community well-being, justice, economic stability, and environmental sustainability. What we call planning, the daily activities and responsibilities and skills of people who call themselves planners, will continue to evolve.

I offer below the perspectives I have from two positions: that of an employer, as a former Community Development Director and as President of a private planning firm; and that of a member of the planning profession's leadership, as President of the American Institute of Certified Planners.

### *View from the Employer's Perspective*

Employers use lots of different and sometimes quirky strategies in hiring professionals, but there is no denying the influence of market economics. In the job market, the variability of supply and demand impacts both salaries and the match between employee and the job. In recent years, we have experienced a swing from undersupply of planning candidates ("seller's market"), to an undersupply of job opportunities ("buyer's market"). When candidates far out-number the job opportunities, candidates with the most planning experience get placed well before others, even before those with excellent academic credentials. In a tight job market we see entry-level candidates accepting internships that would have previously gone to first-year grad students. The buyer's market is the condition where we might best test our hypotheses to "what do I need to do to distinguish myself from the other candidates for this job?"

Many graduates come out of planning school with a laser focus on the first job, but most employers are looking for graduates who have a career in planning as their goal. Many planning students set their sights on an area of specialization, in part because the guidance given them suggests that a student with a specialization is more marketable with employers, and in part because they are pursuing their interest and passion. I believe that employers respect both, but give short shrift to the notion that the area of specialization amounts to an area of expertise. The ability to articulate a sense of direction or career path is seemingly more attractive to employers than a candidate's conviction that they have an area of specialization or expertise. One of my mentor's said that "... given that the profession and the needs of our clients continues to evolve, it's important for a planner to add a new area of expertise every two years, while not losing command of existing areas of expertise." He felt that "... a 'generalist' is not nearly as capable as a planner with many areas of 'specialization.'" Simply put, his performance standard was a career of life-long learning and advancement in the profession.

In my experience, employers evaluate emerging professionals as job candidates against three criteria:

1. *Acquired Skills*, with particular attention to *communication skills*, including active listening skills and ability to articulate ideas in a coherent way; and *analytic skills* that demonstrate the ability to understand problems and to choose solutions that address the problem.
2. *Acquired Experiences* that include *planning education* (from a PAB accredited program); *professional experiences* (internships, civic involvement, and public

meetings attendance, etc.); and *life experiences* that show the candidates have been exposed to more than the sheltered life of the places in which they grew up or went to school.

3. *Innate Personality and Attitude* that demonstrate sincere and genuine interest in planning, a passion, a willingness to work hard, and a compatibility with the intangible elements of the employer's "corporate culture" work place (public, private or institutional).

Can emerging professionals score a 10 on all of these? Yes, but it's unlikely. In hiring, I continue to follow the guide of "...given two similar candidates, pick the smarter one." Smart in what way, I.Q.?—Maybe, but it is more likely "clever or savvy" (a derivative of analytic skill). Savvy folks learn new skills as fast as they are needed. Employers try to detect the difference between a candidate who has loads of excellent work products that merely follows the pattern or rubric laid out for them, and the candidate who uses imagination or insight to figure it out for themselves.

To emerging professionals who ask me how best to advance in the profession, I often urge them to "become indispensable"...to think about the questions before they are asked; to solve problems; to have data or know where to get the needed data; and to be supportive of good decision-making. In this profession, it is less about the perfect solution, and more about good alternatives from which to choose. This is often seen in very effective rising stars that are welcomed as team members and that prove their value time and again as they become indispensable to their employers and communities.

Most employers prefer to hire planners that they perceive as capable of immediately functioning in a work environment and likely to be able to learn quickly and grow with the position. The alternative, hiring someone who is skilled in a limited number of planning areas, poses the risk of that planner having limited utility or flexibility to take on other roles. Employers share the educator's interest in delivering students who know how to research, how to learn, how to analyze, how to articulate their ideas, and how to work with others. The employers hope that that will include writing skills, math literacy, basic understanding of civics and government, and the ability to read a map, but they are willing to teach many of the rest of the skills needed for entry-level positions. The planning professionals who are employers believe that the AICP exam should not be limited to those things that a candidate should have learned in planning school.

### ***View from the AICP Commission's Perspective***

The primary mission of the AICP Commission is the enhancement of the value of AICP membership and the AICP credential; this assures that the AICP membership is worth achieving and worth maintaining. It does so by setting and enforcing high standards for eligibility, ethical behavior, and continuing professional development.

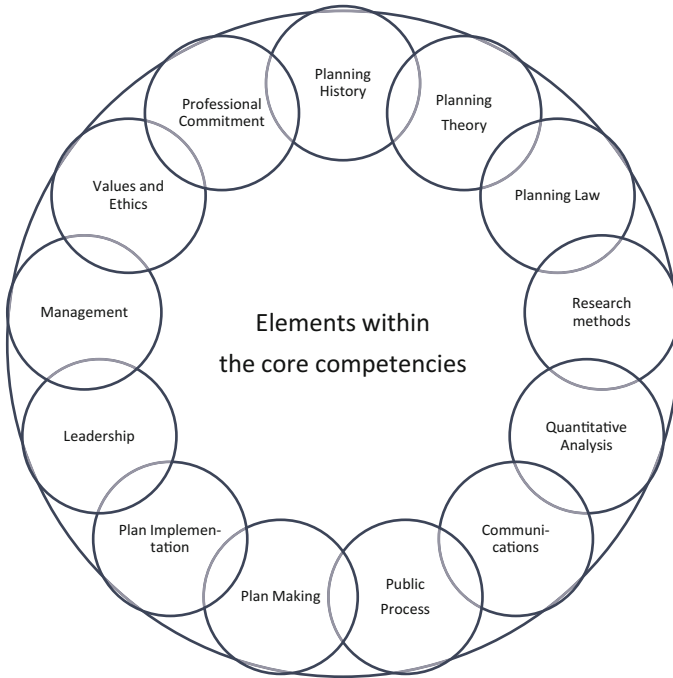
The AICP credential is intended to be the planning profession's measure of competence. AICP members, their employers, and ultimately their communities need to be confident that AICP eligibility and the AICP Exam are indicative of the skills necessary to distinguish an AICP member from other professionals. It is important to the Commission that we are testing for the right skills and adequately measuring sufficient planning experience. Further, the Commission seeks to assure that the standards and opportunities for professional development are available in the diversity, quality, and level of advancement necessary to maintain members' core competencies.

It is the Commission's responsibility to assure that the AICP Exam, and the AICP Certification Maintenance requirements and resources remain relevant and current. Toward this responsibility, the Commission has established its "Core Competencies Initiative." In its early form, the Initiative inventories and maps the skills, knowledge, experience, and values that define the planning profession. Later, the Initiative is intended to become a resource in support of better choices in the selection of professional development topics and educational sessions as well as impacting career paths. The immediate objectives of the Initiative include the following:

- Confidence in the correlation between the AICP Exam and what planners should know;
- Refinement of the separation of core competencies and advanced specialist competencies;
- Confidence in the match between our training and educational offerings and members' needs to advance their careers; and
- Dialogue and exchange of perspectives between planning educators and planning practitioners on the skills, knowledge and experiences that lead to greater success of planning school graduates, and better planning outcomes.

The AICP Commission envisions a "core" of skills, knowledge, experiences, and values that every planner shares (shown as the ring of circles in Fig. 1). These core competencies distinguish planners from other professions. Specialty competencies (shown in Fig. 2, as the outside rings of circles surround the core competencies) represent competencies that go beyond and add to the core competencies. These specialty competencies distinguish planners from others within the profession of planning. We imagine that the area of overlap between core and specialty is variable, as is the size of the specialty circle for any given area of specialization.

The Commission's work to catalog and categorize the core competencies and specializations started with two primary sources: The skills and knowledge referenced in the accreditation criteria adopted by the Planning Accreditation Board, and the skills and knowledge listed by the American Institute of Certified Planners in its guide to preparation for the AICP Exam. It should not come as a surprise that list continues to expand as we hear from members who have evidence of further activities that fall within the remit of practicing planners.

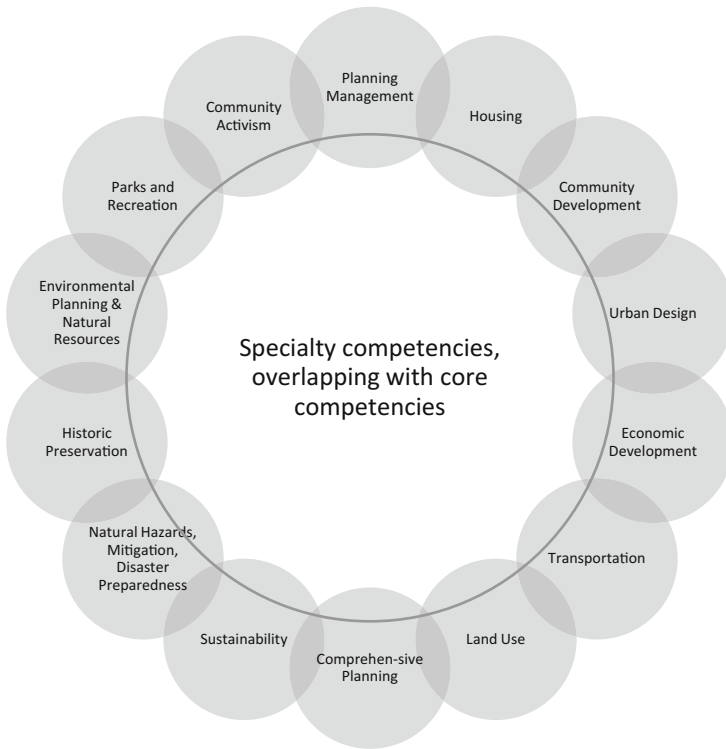


**Fig. 1** Core competencies of the planning profession (adapted from the AICP Commission)

It was 28 years ago that the U.S. Congress funded the National Institute of Health’s effort to coordinate the decoding of human DNA, in order to map the human genome. Scientists spent enormous time, energy, and funding on what seemed to outsiders as an esoteric problem—one of those “climb-Everest tasks” that seemed almost self-indulgent. But once they achieved it, they began to use it to develop new treatments for diseases, new understandings of the causes of certain behaviors, and new pathways to health. In the end, it wasn’t the genome mapping that was so important, it was what scientists would do with that information.

I have referred to the Core Competencies Initiative as our genome project; not because of its scale or complexity, but because the impact of the exercise is likely to be greatest as a result of collateral exercises, including enhancements to the AICP exam, to the nature of our continuing professional development programs, and to member services—particularly for emerging professionals.

Should the universities teach the core competencies? Should they be teaching the specialty competencies, too? YES. But should students be expected to be fully competent in the core and their selected specialization as they exit with a degree in planning? NO. The Commission suggests that the planning degree is a milestone that should not be confused with the level of competence expected of an AICP



**Fig. 2** Specialty competencies of the planning profession (adapted from the AICP Commission)

certified planner. This comes further down the road of this life-long combination of acquired skills and experience, enhanced by innate personality and attitude of the individual planner.

### **The Six “Ls” Needed to Succeed in Planning—Ben Herman, FAICP**

I’ve been working as a professional planner for nearly 35 years. During that time I’ve hired countless planners; conducted training workshops and seminars for students and emerging planning professionals; and served on the University of Colorado’s President’s Advisory Board for the Graduate School of Planning and Architecture. Whenever possible, I meet with students and young professionals to help them with their career planning and coach them on resume skills.

My educational training was in environmental studies, with added coursework in public administration and planning. Most of my planning knowledge was acquired



on the job—halfway through college, I started working full time for a small, highly regarded consulting practice in southern New Jersey, and then joined the firm’s founder at the New Jersey Department of Environmental Protection (NJDEP)—my one and only public sector job. I did not attend graduate school—I thought about pausing at several points during my career to do so, but frankly would have been interrupting a successful career, and thus thought the better of it.

For over three decades I’ve seen many highly qualified planning candidates succeed, but I’ve also seen many of them not succeed. So what does it take to be successful? Certainly a strong working knowledge of the basics of planning is important—history, theory, practice, current trends, etc.—as is the willingness to continue to learn and absorb new ideas. Developing specialized planning expertise such as transportation, housing, or environmental topics, certainly helps.

The above is important, but to me there are six primary skill sets that will ensure a successful planning career regardless of what aspect of the planning profession you choose. I call these the six “Ls”—for no other reason than that they all end in the letter “L”—and you know we planners love to categorize things. They are as follows:

- Visual
- Spatial
- Digital
- Verbal
- Financial
- Analytical.

The following briefly describes each of these skills, why they are useful, as well as how to acquire them. By no means am I suggesting that success as a planner requires mastery of all them; a basic familiarity will suffice, with knowledge and experience growing as your career path evolves.

**Visual**—Successful planners today are entering the workforce with the requirement to convey ideas in highly visual way. Planning firms and agencies are looking for entry-level planners with a level of expertise in graphics, drawings, 3d modeling, and other visual tools. Planners need to be able to produce documents that are appealing and engaging, with infographics and clean layouts (think *Time Magazine*). The best young planners are as comfortable using such tools as Adobe Creative Suite and SketchUp, as they are with Word and Excel.

**Spatial**—I came of age drafting by hand (Leroy lettering and ChartPak film), and consequently have always felt most comfortable using maps as a way of understanding a community. In today’s world, GIS skills are mandatory for young planners; many firms and agencies will not hire someone who cannot effectively use ArcGIS. But equally important to the technical skills is a working knowledge of the land—understanding how to read topo maps, having a sense of the relative scale of things (how long is a block?), and being grounded in an understanding of environmental resource planning. I often ask young planners if they are familiar with

Ian McHarg's "Planning with Nature" and his pioneering approach to overlay planning; if they are, I know that they will have at least a basic understanding of the spatial aspects of planning. If they are not, I suggest that they spend more time getting grounded in the basics.

**Digital**—One of my first assignments at NJDEP was to figure out what, if anything, the department was to do about the personal computer. It was 1981, and IBM had just introduced the PC. Scientists in the department were clamoring for them, but the department's data czars feared them, as did the purchasing agents, who viewed them as an excessive waste of money. Planning technology has come a long way since then. Young planners need to have a deep understanding of how to use all forms of digital technology, and be willing to stay ahead of the curve as new tools emerge. We look to our staff to use planning tools on the web to manage projects; for public outreach and surveys; to use mobile technology; and more. With this skill set young professionals are vitally important in helping senior staff stay ahead of (or at least not fall too far behind) the curve. All planners are expected to embrace and use these tools—but those who excel at it will be in high demand.

**Verbal**—We all know that expressing yourself verbally—both in writing and orally (one-on-one as well as in presentations)—is a core skill for planners. But the real key to success is the ability to do so clearly and succinctly. One of the trends in recent years is the need to convey planning ideas and concepts in a more compelling way. Plans, policies, and concepts can no longer be expressed in long, written documents, or in long, boring presentations. Clients and the public want the best, most creative ideas—but they want it in understandable sound bites and digestible documents. Planning students and emerging professionals should learn how to express themselves by practicing their presentation skills, and by having others review and critique their written materials. Verbal skills, particularly the ability to write effectively, are the most important criteria a firm or agency uses when selecting candidates for job.

**Financial**—There are several aspects of financial skills that are important to planners. For both public and private sector planners, a basic understanding of public finance is critical. This is a multi-faceted topic, and includes at least a basic understanding of public revenues (taxation, bonding, etc.) as well as the budgeting process. My first exposure to public finance came through working on wastewater infrastructure and waste-to-energy project financing in the early 80s. Over the course of six intense months, I worked with a team of financial analysts who patiently explained project financing to me—it was an invaluable experience. Similarly, it is important for planners to understand the basics of development financing. It is critical that planners know how things that are built in cities get paid for, even if leaving the details to the experts. Some years ago I spent a week studying development finance at a Urban Land Institute "Boot Camp." This gave me an important foundational understanding of how the development sector works. Planners who are interested in working in the private sector need to know the basics of budgeting and small business management. If possible, take a Small Business

101 course while you are in school or at a community college—it will be beneficial to your career.

**Analytical**—The last “L” is for analytical skills. Planners love data and are good at gathering it—but all too often too much of it. The real skill that planners need to succeed is in knowing how to sift through and analyze available data and hone in on what is most relevant to the issues that they are trying to address. Being able to identify the key questions at hand; identifying and analyzing the data that informs the key questions; and presenting it in a compelling and relevant way (using the verbal and visual skills described above) are the most important skills that planners can have. In my experience, too many planners rely on too much data when trying to convince policy makers and the public of the need for change. We often lose the argument though eye-glazing boredom and lack of focus. Learn to recognize what it takes to build a case for change, and avoid the tendency toward data overload.

The six “Ls” described above are skill sets that I believe are highly important at the entry of a planning career as well as throughout. One last point, in addition to skills, there is knowledge. Planning students and emerging professionals need to be knowledgeable in many topics—sustainability, housing, transportation, and natural resources. Staying current in the knowledge base, with strong foundational skills, will ensure that students and young professionals succeed and flourish in their chosen career path.

## Concluding Comments

Universities must continue a dialogue on the skills needed by today’s and future planners. A strong interdisciplinary core curriculum that provides basic fundamentals must be provided to students. We must also continue to develop new courses that reflect current trends in the field of planning. Communication (written and verbal), reasoning, and analytical skills remain critical for planners. But also emerging is the need to enhance planning students’ ability to visually articulate their planning concepts. Given the dynamic environment of the planning profession, a planning student’s education does not end upon graduation. Planners must continue to update their knowledge base and retool themselves to effectively compete in today’s workforce. This will enable them to better understand how social, economic, environmental, and spatial factors influence the profession and continue to keep the planning curriculum relevant.

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# Chapter 22

## Conclusions

Andrea I. Frank and Christopher Silver

**Abstract** This concluding chapter summarizes insights from the selected national and regional case studies on the development and change of planning education. Establishing education programs, which are independently recognized, has been a slow process which is ongoing. In parallel, the threat of program closures remains despite the widespread recognition by international bodies such as UN-Habitat of the field's contributions to making cities sustainable and liveable. The review also revealed that despite nation-specific professional requirements, common pedagogies and distinctive profiles of education programs are emerging. In order to progress and secure the future of planning education programs, we recommend that academics and planners (a) re-engage in espousing the value of planning to the general public, (b) further develop interdisciplinary competencies—a major strength of the field, and (c) remain adaptive.

**Keyword** Planning education • Trends • Sustainable Development Goals • New Urban Agenda • Disciplinary identities • Curriculum adaptation

### Introduction

Through the collection of essays in this volume we sought to broaden understanding of the development of planning education over time and from a global perspective. One aim was to move beyond the mostly quantitative measures employed in producing the first global inventory of planning education programs in 2009 (UN-Habitat 2009, pp. 185–198). Research for the inventory compiled in the

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UN-Habitat study opened our eyes to the dynamic growth in planning education provision and to selective new initiatives from several case studies of places exerting considerable energies to join the planning movement. What we have attempted in this volume is to highlight the diverse histories and intertwined professional pathways of past planning education champions and to showcase and assess the rich and expanding diversity of planning education around the globe. In doing so we reveal the considerable challenges involved in renewing curricula formats and content, and in developing appropriate pedagogies to ensure future planners are fit to plan (or support planning) for sustainable, resilient, smart and healthy communities and cities. By bringing together in a single volume the voices of planning academics from varying circumstances, we hope to inspire the ongoing dialogue among planning educators which has enabled the movement to become so global in scope.

## Insights from the Past and Present

What can we discern from the selection of essays that explore the first century of education in the planning field? Formal university-level planning education programs were established from 1909 onward when the first known degree program was inaugurated at University of Liverpool in the United Kingdom. Planning education emerged in parallel to the establishment of planning as a distinctive profession and its formalization through the establishment of professional bodies and societies, such as the Town Planning Institute<sup>1</sup> in 1914 and the American City Planning Institute in 1917. Education for town, urban, city, or regional planning already existed in higher education—but only in the form of individual courses covering topics related to city development within cognate disciplines, such as civil engineering, landscape architecture, and architecture at a few select institutions. As the contributions in Part I document, the emergence of planning education at the global scale took nearly a full century and progression was not always smooth and straightforward.

Although complete and accurate data remains a challenge, one can safely state that by 2017 at least 600 documented degree programs exist at either undergraduate or postgraduate level providing education for town, urban, or regional planners at universities and higher education institutions around the world. Nevertheless, there are still numerous countries and regions with few, if any, opportunities to secure the education for planning that is necessary to advance modern practices of planning. Mismatches in supply and demand of planning expertise are especially notable in some rapidly urbanizing nations, where there are too few professionals adequately trained to provide the planning support necessary to guide development of cities

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<sup>1</sup>The institute was granted a Royal Charter in 1959 and is known since as Royal Town Planning Institute (RTPI).

and metropolitan areas in ways that are sustainable and provide healthy living environments for residents to lead prosperous and productive lives.

### *Toward Independence and Recognition*

As mentioned above, establishing the notion of planning education as an independent field of study has taken much time. One lingering impediment is a stubbornly recurring debate whether planning should be treated as an independent discipline that warrants the existence of standalone degrees (e.g., Davoudi and Pendlebury 2010; Geppert and Cotella 2010; Frank, et al. 2014). The tension between planning and associated disciplines as an ongoing challenge for planning education is evident from the beginnings. It arises in Posas' review of the development of planning education curricula in University of Liverpool's civic design program (Chap. 3) and rematerializes, for example, in the more recent efforts to establish planning education programs and a planning profession in the transition countries of Poland and Estonia (Chaps. 12 and 13). Planning educators themselves may disagree on how best to incorporate the diverse perspectives and skills (between art, design, engineering, social science and policy; urban, regional, or spatial planning) within a coherent and workable curriculum. The discourses deriving from such tensions often lead to creative innovation that prevents a field from becoming stale and intransigent. Conversely, however, an insufficiently defined disciplinary identity expressed through such tensions makes the field also vulnerable to outside criticism, and susceptible to ancillary disciplines claiming to be the planners. We posit, for better or worse, that these tensions will likely remain unresolved and that such conflicts are part and parcel of any discipline that is multidisciplinary like planning.

Aside from these theoretical issues there are also practical hurdles. The justification for standalone planning education programs may be questioned when tasks for planning and planners are shifting and thereby render existing curricula less relevant (see Chap. 11, Korea) and/or student enrolment declines for demographic reasons (Chap. 12, Poland). Lack of student interest (for whatever reason) poses, in turn, another risk to the continuation of existing programs in an increasingly economically minded and profit-oriented tertiary education sector. It is therefore crucial that planning (and education for planners) which is not only an interdisciplinary but also an applied field adapts to advancements in technology and contextual changes in society and the environment in a timely manner.

There is a need to prove and assert the relevance of the profession on a continual basis and planning educators have become increasingly savvy in this regard. The cases presented in the book illustrate this adaptability in a number of ways. They demonstrate how the approaches to preparing students to be planning practitioners

evolved in response to (a) distinct stages of urban development, as well as (b) to changing political ideologies influencing the role of the state and the market in urban development processes by borrowing from examples of success elsewhere and developing new methods. The transformation of planning education over six decades in China (Chap. 6) highlights the role of changing political ideology in defining the purposes of planning education. Approaches to education were also affected by phases and stages that a society undergoes in terms of urban development. Looking back to the early twentieth century, planning was regarded largely as the art of developing a layout of residential areas and establishing spatial structures in cities through determining transportation networks to ensure orderly urban development. A surge of planning for urban extensions and new towns was experienced in Europe following World War II as part of rebuilding cities that were destroyed by bombing and fire. However, once urban growth slowed and the urban infrastructure aged, especially in the developed world, planning had to take on different tasks—those of urban regeneration and renewal (Chap. 11). New policies and strategies had to be devised to facilitate the complex processes of repurposing industrial brownfields, upgrading deteriorating neighborhoods, and transforming office and retail buildings in the city center that no longer served a marketplace as this had shifted in many cities to the periphery. Approaches to education have had to adjust to changes in the primary employment opportunities for graduates—whether public or private sector (see, e.g., Chap. 21).

The sequence of urban development phases is experienced in countries around the world at very different times. So, while rapid urbanization in the United States and in western European countries, such as England or Germany, occurred from the 1850s onward, the same urbanization boom occurred decades later in other nations. In the case of former colonial enclaves in the global South such as Indonesia, its capital city Jakarta experienced massive in-migration following independence in 1950, however, not owing to industrialization as was the case in the west, but because of poverty and unrest in the hinterland. This generated nonetheless growing support for planning and the development of urban extensions. With only minimal educational infrastructure in country to prepare sufficient local experts (Chap. 5), there was initially heavy reliance upon outside consultants. It took decades for the country to begin to develop its own approaches to planning (Chap. 15). Looking beyond the Indonesian case, planning education is expanding in response to urbanization underway today in many Asian and African cities much like in developed nations in the early 1900s. The aim, common to that when planning education and the planning profession emerged in the West, is to manage the complex, unruly processes of this urban growth. The conditions, however, are decidedly different in the megacities of the developing world and the planning tools and educational strategies that worked for Western countries need to be reconceptualized and adapted to different realities, such as informal settlements, street traders, and a lack of government capacity to regulate (see Chap. 10).

## *Towards a Distinctive Profile of Planning*

The interdisciplinary nature of planning which is evident in its academic roots, and which draws upon a wide range of scientific as well as artistic skills, methods, and competencies, helps to explain why the question of “what is planning” has never achieved a consensual answer. The context-specific nature of planning illustrates why it is equally difficult to establish a commonly agreed response to “how planning is or should be done.” Across the globe there are many different planning systems and cultures (e.g., Knieling 2009; Nadin and Stead 2008; Reimer et al. 2014), laws, regulations or procedures making it difficult to establish a single core curriculum, and single set of skills and knowledge for planning education (Chap. 9).

Nevertheless, the contributions in this volume show a slow but discernible convergence on what topics planning education should cover and how planning may best be taught through discussions in professional circles. The definition of learning outcomes for accredited programs, core curricula and competencies have since further honed in on some high level skills and competencies (interdisciplinarity, communication, analysis, and leadership) which help to distill the essence of an education for those interested of working in the planning field. There is agreement that unlike other fields that merely analyze and interpret, planning, and planners actively seek to change conditions (for the better) and improve living environments. This will have to increasingly involve a wide range of stakeholders and involve working in partnership with practice as well as education involving science and engaging policy makers and the general populace (Chaps. 10, 17, 18, and 20). And, following years of academic exchanges on the one world approach to planning (Sanyal 1990), many curricula are starting to embrace Burayidi’s (1993) suggestion that planning curricula should encompass teaching both locally specific aspects of planning and globally universal principles. This increasingly entails internationalization of curriculum content, field trips, and student exchanges.

Another issue where North and South converge is on the need for planning education to prepare professionals to address the environment challenges of cities that have expanded in scale in places only intended to accommodate more compact settlements. One relatively new yet common concern of planning practitioners is the issue of progressing sustainability and resilience as discussed in Chaps. 17, 18, and 20. The health and hygiene, land designing and land restoration ethos of planning so much in evidence in the early years of planning education programs has re-emerged as a focus to enable planners to create livable places. There is also a need to respond to ineffective planning throughout the twentieth century that consigned vast areas to threats from natural disasters owing to the willingness to allow development to take precedence over natural resource protection. The resulting implication of this in the face of climate change, which affects urban and rural areas in significant ways, has become a core challenge for planners.



The literature in planning is replete with works addressing these issues but it is not clear that planning involvement and potential contributions to natural resource protection and disaster risk reduction (in regard to human and natural disasters) has assumed a central place in planning education. Yet, planning interventions could contribute significantly to the reduction in economic loss from disasters associated with flooding and sea level rise.

These emerging themes are encapsulated in the vastly complex *New Urban Agenda* which was being developed in the run-up to the United Nations Habitat III Conference on Human Settlements as we were collating and finalizing this volume. In contrast to Habitat I<sup>2</sup> and Habitat II<sup>3</sup>, which focused in the main on economic development and poverty eradication—Habitat III held in Quito (Ecuador) in October 2016 pronounced an embrace of urbanization and supports the development of planning interventions at all levels of human settlements. There is explicit acknowledgement that with more than half of the world’s population living in urbanized areas and those areas cumulatively responsible for 60–70% of waste, greenhouse gas emissions, and energy consumption, focusing on urban settlements will be key to address issues of sustainability and resilience. The *New Urban Agenda* commits its signatory nations “to a paradigm shift in the way we plan, develop and manage urban development, recognizing it as an essential element in the achievement of all Sustainable Development Goals” (see [Citiscopes.org](http://Citiscopes.org) 2016) which are to guide urban investments and urban interventions through to 2030. It boldly commits member states to a concept of cities for all, commonly referred to as Right to the City, that implies “just, inclusive, and sustainable cities which exist as a common goal to a high quality of life.” The Sustainable Development Goals (SDGs), unlike the preceding Millenium Development Goals, include an explicit call for planning and managing urban spatial development which involves and supports all stakeholders ([Citiscopes.org](http://Citiscopes.org) 2016). The implications of this declaration for planning education across the globe will be profound since it creates a framework for a planning education process that reconnects with the design, engineering, legal, health, and demographic origins of the planning education movement of previous centuries. What is different is the global connectedness that calls for collaborative interventions where developed countries assist poorer nations, while at the same time supporting the long desired self-reliance among planners and planning educators in the postcolonial world. Yet, planning within individual vil-lages, cities, regions, and nation states remains challenged by political regimes that do not sufficiently empower public regulation to support community wellbeing.

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<sup>2</sup>Habitat I refers to the first United Nations Conference on Human Settlements held in Vancouver, May 31–June 11, 1976.

<sup>3</sup>Habitat II refers to the United Nations Conference on Human Settlements held in Istanbul, June 3–14, 1996.

## Future Prospects and Recommendations

We hope this volume will inspire planning educators to the self-reflection necessary to effectively prepare the next generation of planners, and to enable the broader public to recognize the virtues of supporting that process. It illustrates that planning education is important to guiding urban development, urban renewal, and regeneration as well as building climate change resilience and enhancing sustainability. Indeed as the levels of urbanization are increasing, the value of planning seems to regain support, and endorsement most recently through the *New Urban Agenda* and SDGs (UN-Habitat 2016) at a global scale. It is evident from the proliferation of planning education programs in all global regions, and the acknowledged need to bring similar programs to underserved regions, there remains a sound and stable rationale to expand the capacity to plan and develop planning expertise through planning education programs. It is furthermore clear that planning education programs can only be established and maintained if planning curricula provide relevant skills needed and in the local and regional context. We believe at the time of writing the prospects for the future of the planning discipline and planning education are more favorable than at any recent period—but educators and professionals need to be vigilant to take advantage of the policy windows as they arise from the SDGs and new aspirations associated with university-community engagement in respect to sustainable and post-sustainable development. As a way to further cement the recognition of planning education and its contribution to society we recommend that:

- **Planners and planning educators reengage in educating the public about planning.**

Given the recurring challenge of planning to establish a professional identity that distinguishes itself from that of related professions, such as architecture, engineering, and landscape architecture, there remains a glaring gap in public understanding of what planners do and why planners are necessary. For that reason, planning education will need to confront not only preparing professionals but also educating the public about the value of planning. The tradition of planning education aimed at raising public understanding of urban challenges is a theme in some of the historic accounts (Chaps. 2 and 7). It resurfaces in Evans-Cowley's discussion in Chap. 19 that explores this function through the growing array of massive open online courses (MOOCs) and other digital material that make publicly accessible the knowledge, values, and skills in planning that were previously available only to the matriculated students, that is those with the resources and capacity to engage in formal education. Incidentally, this may also help with public participation and developing co-creation and co-planning capacity with stakeholders impacted by planned developments and changes in the built environment.

Planning educators and planning schools continue to build networks and opportunities to share experiences on curricula development and pedagogies. The formation of professional bodies, associations and networks of associations will be

key. As the case of Africa shows, collaboration among planning schools can be a helpful vehicle to promote the cause of planning and strengthen the standing of planning and planning education. In addition, there is a need to monitor whether there are sufficient planning schools and training capacities in places that currently need to increase planning professionals. Additional research on the state of planning practice and planning education in less served regions, possibly undertaken through planning schools associations or GPEAN, will help to identify where ongoing program development should take place.

- **Planning educators embrace the interdisciplinary nature and draw on the diversity of the discipline.**

As has been noted, being a discipline that straddles and interacts with many others always creates tensions. While these tensions can be frustrating they can also lead to new and exciting educational endeavors as described by Schlossberg et al. (Chap. 17), and Wilson and Beatley (Chap. 20). Similar ambitious experiments with new approaches which propel planning education into the sphere of co-creation and co-learning (practices) are also explored in the Netherlands (Rooij and Frank 2016) and Africa (Chap. 10). Interdisciplinary skills and competencies will give planning graduates an edge over others when dealing with the increasing unknowability and uncertainty of the future and making positive contributions to future developments (Barnett 2000, 2004; Chap. 12). Moreover, although this volume has connected the present day planning education to its roots in the industrial urban experience, it is evident that history cannot simply be extrapolated to the future. The scale and shape of future cities and newly forming urban agglomerations are unprecedented and radically different from those a century ago when planning education was first undertaken. Yet as we have seen in the case of the re-emergence of the “collaborative interdisciplinary studio” (Chap. 18), a pedagogy fundamental to planning education from the early twentieth century has found new life and new purpose in preparing planning students for the world of practice.

- **Planning educators continue to adapt curricula to reflect external conditions**

Time and again, planning curricula, and education have been revised and updated to ensure that planning graduates have the competencies and skills required for the planning challenges that societies face. Planning paradigms have changed over time but the need to serve as an interface with civil society on matters related to “making places better” has remained constant. As Chaps. 16 and 21 make clear, the pillars of planning developed over the past century remain an accepted foundation for the profession and the education process. What planning practice now demands from planning education is to prepare future practitioners to be able to help shape alternative futures. This might include a closer concern with technology as in smart cities but also science such as ecology. As Whitehead (1925) postulated, the intrinsic worth of the environment must be allowed its weight in any consideration of final ends as any physical object which by its influence deteriorates its

environment commits suicide. As the Sustainable Development Goals (Citiscope.org 2016) suggest, future scenarios vary across space but can be summed up in a set of expectations: inclusive and healthy urban environments, continued reduction in the incidence of poverty, engagement of all stakeholders in decisions that affect urban development, preparation for the unintended consequences of disasters while at the same time mitigating the negative impacts of climate change, and protecting natural resources.

Overall, these expectations are far from being realized. How planning educators will weave all of these, and other equally important objectives into the preparation of future practitioners will determine what kind of communities we will have. And this is what makes planning education so important, so challenging, but also so gratifying. It is fair to conclude that planning education finally has come of age.

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