

Chapter 4

Cultural Landscapes: Integrating Culture and Nature to Uplift Global Sustainability Through the Lenses of the UN SDGs 2030 Agenda



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Abstract Cultural landscapes form the shared commons of each community, while rural agriculture, woodlands and waterways bear the imprint of human uses as they support biocultural diversity. Our shared landscapes intertwine and entangle biological and cultural diversity, natural and human habitats, and tangible and intangible heritage. Cultural landscapes are vessels of heritage where livelihoods, spiritual meanings, traditions and practices express the values of landscapes and waterscapes. Human settlements of all sizes and types are vessels of biotic and cultural diversity. Varied twenty-first-century challenges urge us to embrace these interrelated aspects of diversity within cultural landscapes. Working toward the protection, future vitality of cultural landscapes is a deeply sustainable activity. With 75% of the terrestrial surface deeply altered by humanity, in both positive and negative ways, cultural landscapes offer an opportunity to help address the big issues of our times by engaging biodiversity, climate, justice, inclusion, resources, wealth and poverty. As we implement the United Nations Sustainable Development Goals (UN SDGs) 2030 Agenda with its 2020 to 2030 decade of global and local action and the parallel UN 2021–2030 Decade of Ecosystem Restoration, our actions, based in an understanding of entangled and inseparable Nature and Culture, offer a platform for effective cultural landscape undertakings.

Keywords Cultural landscape · Sustainability · Biocultural diversity · Nature-cultures · Heritage · Historic urban landscape

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4.1 Introduction

The broad field of cultural landscapes embraces tangible and intangible cultural assets and ecological and human-shaped natural assets. Cultural landscapes embody the integration of people and place in a forward looking, mutually sustaining relationship that values heritage, habitat, resilience, inclusion and more. The visionary 2015 to 2030 global agenda, articulated in the United Nations Sustainable Development Goals (UN SDGs), offers sound goals and comprehensive targets to transform our world, relying in part on our shared heritage of places, to achieve that transformation.

The often-separate constructs of cultural diversity and biodiversity interrelate in cultural landscapes, with varying degrees of natural and cultural assets and values within each. These interrelationships require more complete study and understanding to achieve conservation and future vitality for cultural landscapes. Biological diversity occurs in natural and human-shaped habitats, from untouched nature to human transformed thriving nature. As vessels of cultural diversity, cultural landscapes enrich places and peoples as an inheritance and a legacy for the unborn thus continuing to shape traditions, beliefs and world views. Biodiversity and cultural diversity are landscape assets, where nature and culture are entangled and inseparable, addressed and integrated as biocultural diversity.

It is important to recognize that cultural landscapes generally function as carbon sinks, aiding in meeting the need for carbon drawdown, the point at which more carbon is inserted than that released worldwide. For example, soils and plants capture and embed carbon contributing to drawdown. That drawdown process can and should accelerate in cultural landscapes in a conscious manner to achieve greater sustainability.

Raised voices all over the world address timely vectors of sustainability. This paper focuses on sustainable cultural landscapes within the contexts of climate change action, biocultural diversity, local place commitment and intergenerational inclusion to address the urgent needs for transformational professional and citizen actions achieving place-based solutions, responding to pressing global issues. Works that sustain place build global understanding by uplifting cultural landscapes toward cultural, environmental, social and economic harmony that aligns to people, planet, peace, prosperity and partnership. To address the plethora of current challenges, sustainable development is foundational. Cultural landscapes present a vehicle for sustainable development that can achieve the visionary UN SDGs goals and a significant number of specific targets. The cases described provide evidence of the process of understanding and effecting protection, interventions and management toward enhanced cultural landscape sustainability. Cultural landscape research, study and practice, in all aspects, are worthy of our highest endeavors to be deeply and broadly sustainable.

4.2 The Concept of Sustainability and the UN SDGs

The future we want integrates culture and nature to achieve the targets of the UN SDGs 2030 Agenda. Fully cognizant that these times hold immense challenges, the United Nations States Parties approved this fifteen-year visionary and inclusive global agenda in September of 2015. For only the second time worldwide, following on the less comprehensive eight UN Millennium Development Goals, nation states agreed to collaborate from 2015 to 2030 on addressing 17 goals and 169 specific measurable targets (UN 2015). The UN SDGs encompass a wide range of common issues: from climate action to life below water; sustainable cities and communities to gender equality; to life on land and peace, justice and strong institutions; and responsible consumption and production to partnerships; and much more. Nearly seven years since the adoption of this transformational agenda, much of global humanity remains ignorant or fails to engage. It is past time to move forward making substantial progress on these goals and targets.

The definition of sustainable development arose in 1987, as the UN World Commission on Environment and Development reported that environmental and social aspects of all nations were linked in development that could persist into a balanced future (UN 1987). Over time contemporary use enlarged sustainability as supported by three pillars: economy; society; and environment, referring to a balance among the three pillars that connotes success in sustaining places and peoples (UN 1992, 2002). With the progress of the Millennium Development Goals 2000, and the UN SDGs 2015, the culture sector has further expanded the sustainability model to include culture, which can be seen as an encompassing umbrella that permeates all three pillars (UN 2000). Another important refinement is captured in shifting from resources to assets in this model exchanging resources that can be expended, degraded and abused with assets that have inherent value as they exist today (see Fig. 4.1). Cultural landscapes permeate the full range of places and human activities and interactions, activating several targets of the UN SDGs, within a range of effectiveness and importance.

4.3 The Biocultural Diversity of Cultural Landscapes

Culture and nature coexist and co-evolve in cultural landscapes. A range of pressing issues impact cultural landscape assets that require actions at the local level applying both place-based knowledge and universal guidance. To think and act holistically for cultural landscapes, the combined works of nature and humanity, it is useful to consider the constructs of biological diversity and cultural diversity. Are these separate or is there an overlap and interrelationships to be understood and acted upon? In Montreal in 2010, a joint conference of UNESCO and the Convention of Biological Diversity set forth a declaration acknowledging the vital importance and links between biological and cultural diversity for the “survival of traditional

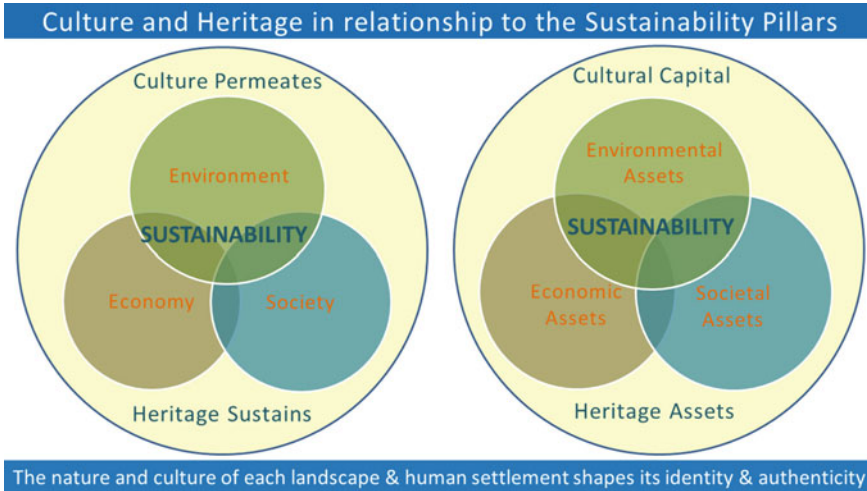


Fig. 4.1 Sustainability is defined as achieving a balance among environment, economy and society values benefits, permeated by culture on the left. While on the right, these are each viewed as Heritage Assets that embody cultural capital (Courtesy O'Donnell/author)

and contemporary societies, both urban and rural” (UN CBD 2010). Further, a 2019 declaration notes that biocultural diversity embraces the interconnected, mutually reinforcing interdependence and coevolution of biological and cultural diversity and cites that biocultural diversity “refers to the diversity of life in all aspects—meaning not only the biological diversity ... but also cultural and linguistic diversity” (Canada 2019). The term biocultural diversity has been recently employed highlighting a symbiotic relationship that integrates conservation and spiritual meanings of diversity “between habitats and cultures, and between ecosystems and cultural identity indeed, religious rules and rituals often strengthen this relationship and are characterized by a conservation ethic” (Negi 2010). A model, developed by the author, captures this integration showing overlaps and opportunities (cf. Fig. 4.2). The construct and ramifications of biocultural diversity are integral to increasing traction on appropriate and helpful human responses to sustaining the values and benefits of diverse cultural landscapes for today and the unborn of all species.

Similar to biocultural diversity, the term “naturecultures” has emerged to capture the notion of entanglement and inseparability (Haraway 2003). These landscapes vary in the degrees and quality of natural assets of biodiversity, native species, habitat and ecological systems and cultural imprints of features, meanings and values. An effective sustainable development framework for cultural landscapes understands and protects the diversity of these intertwined natural and cultural assets. Given the pressures of current events and trends, from forced migrations to COVID-19, recent dialogues enlarge to include notions of planetary justice for the earth and all lifeforms, to more deeply connect places and peoples for all. These directions return to resonance with protecting and improving cultural landscapes, the 75% of

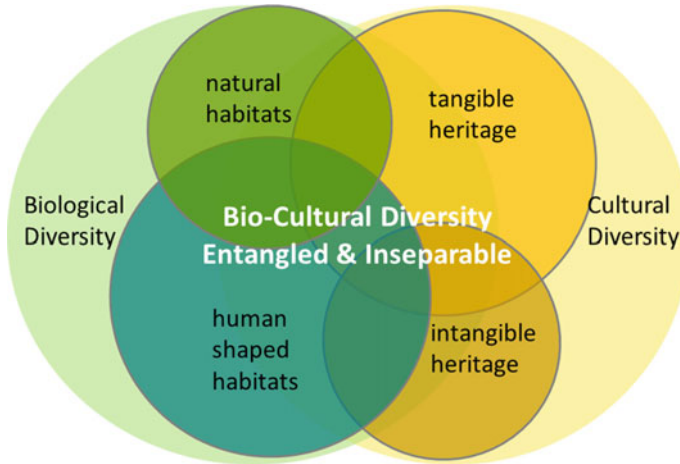


Fig. 4.2 Earth’s natural and cultural heritage of biocultural diversity intersects in contemporary life as inseparable assets to be cherished (Courtesy O’Donnell/author)

the deeply altered planetary surface. Comprehensive and inclusive actions conceive cultural landscapes as combined natural and cultural assets as vessels of biocultural diversity.

Exploring these assets of cultural landscapes reveals, in many cultures, an inaccurate and unhelpful separation of cultural and natural assets of landscapes, the results of which plague the planet today mired in a climate emergency prompted by human activities. The notion of human dominance is a primary suspect in shaping patterns of planet-wide extraction and degradation for human gain in the present, void of sustainable development considerations that include the generations to come. An opposing set of beliefs and practices within some cultures, particularly those of Indigenous peoples and local communities dedicated to their place, unites humanity and nature. These traditional, multigenerational practices consider people as part of, not separate from or having dominion over, nature. Relying on place-based knowledge and endemic techniques of management and care, persisting cultural landscapes sustain diverse assets of all species and elements, without depletion over time, focusing on mutual benefits, coexistence and coevolution (Negi 2010). Detailed relevant guidance is found in a group of international declarations and conventions, such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) adopted by the UN General Assembly in 2007, among others. The text of this declaration includes the recognition “that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment” (UN DRIP 2007).

To reinforce the construct of biocultural diversity and interdependence, an important foundation in spiritual teaching and religious beliefs applies to personal commitment to planetary well-being. Many creeds express the importance of the earth and human responsibility to act in alignment with the lands, waters and array of species

with whom we share this fragile but resilient planet. In an important ecumenical statement, Roman Catholic Pope Francis notes that there is a (Vatican 2015):

... wrong understanding of the relationships between human beings and the world ... our “dominion” over the universe should be understood more properly in the sense of responsible stewardship... Neglecting to monitor harm done to nature and the environmental impact of our decisions is only the most striking sign of disregard for the message contained in the structures of nature itself.

This statement echoes those from many spiritual sources that guide humanity to protect and serve our planet. Viewed from the cultural landscape perspective, that service to places and the people who value them aligns to sustainable conservation, protection, interventions and management. In order to achieve sustainable cultural landscapes, advocates and experts must apply effective tools of engagement, empowerment, knowledge sharing, planning, regulation, traditional practices and finance.

The outcomes of these nature and culture integrations of biocultural diversity capitalize on the time-proven traditions, beliefs and practices world-wide in the face of the plethora of issues about carbon, climate, justice, governance, well-being, funding and more. All these issues are addressed across the 17 UN SDGs.

4.4 Sustainability and Cultural Landscapes

What is the relationship of sustainable development to cultural landscapes? Based in the ongoing coevolution of the relationships of land and people, the ascribed landscape values and care provided by people underpin sustainability into the future. Cultural landscapes can be considered into three categories: designed, evolved and associative (WHOG 2021). At first glance, cultural landscapes appear to relate best to the environmental pillar of sustainability, while those of society and economy may be less central. This shallow viewpoint lacks the more accurate assessment of the interrelated dynamics of society, economy, environment and culture and other crosscutting aspects that are integrated throughout cultural landscapes.

An important aspect of cultural landscapes, perhaps less recognized, is the relationship of local language to place. In indigenous cultures, language is the gateway to landscape conception and beliefs that contribute to collective identity of people, place and life forms. Language frames and expresses perception, values, philosophy and so much more. The words of particular aspects of the landscape are often unique, arising from localities, but not readily translated. For example, a study of place and place names reveals that the Western Apache employ words to recognize place and embody meanings (Basso 1996). As one native of Rapa Nui, an island in the Pacific Ocean notes “Language is inseparable from our way of being, our thoughts, our feelings, our joys and much more. It is through our language that we show who we are. If our language disappears, the whole socio-cultural foundation of our community of speakers is put at risk” (Haoa 2021). A recent UN update notes that out of “7000 global

languages, 6000 are indigenous and 40% of these are threatened with extinction”. While fully part of the contemporary global world, Indigenous cultures predominantly see themselves as a part of nature, not separate from or in dominion over. A rising global dialogue recognizes the multigenerational relationships of indigenous and minority communities as land stewards of their places. Played out through cultural landscapes, these stories and practices are critically important lessons of sustainability to be understood and extended in responses to contemporary pressures and crises.

4.5 Budj Bim, Australia, Indigenous Landscape

Useful examples can be drawn from places where the long-term management of Indigenous cultural landscapes by local peoples across generations are found. In these places, the interactions of people and place support the health and well-being of both land and humanity, sustaining a well-managed inheritance into the future for generations to come. The Budj Bim Cultural Landscape of the Gunditjmarra Aboriginal people, a World Heritage Site located in southeastern Australia and inscribed in 2019, bears witness to a land and sea-based productive deep-time eel aquaculture that is transmitted to each successive generation. This ancient network is sustained through a dynamic knowledge system addressing a managed waterscape of constructed channels, weirs and dams that trap store and harvest kooyang, a short-finned eel (WHL 2019a, b). In the Budj Bim example, land, sea and people achieve sustainability through place-based community actions, built on collective multigenerational traditions. Familiarity with the nomination content for Budj Bim indicates that specific aspects of the UN SDGs are addressed in the continuing practices carried out by the Gunditjmarra Aboriginal peoples over six millennia. Starting with *2 zero hunger*, 2.1 seeks to ensure *access to safe, nutritious and sufficient food* for all. Goal 8 *decent work* targets 8.5 *full and productive employment* and 8.6 *youth employment, education and training* may also address the constant efforts to maintain and manage the aquaculture system. A review of the protection and management of Budj Bim indicates that target 9.1 *develop quality, reliable, sustainable and resilient infrastructure* may apply as well as target 11.4 *strengthen efforts to protect and safeguard the world’s cultural and natural heritage*. The specific target 14.2 *sustainably manage and protect marine and coastal ecosystems* relates to the ongoing process of working with lava rock and soils to form dry and fresh water channels to foster the growth of the eel. At Budj Bim, the cultural traditions, knowledge, practices and ingenuity of these aboriginal peoples are being passed on to the coming generation. As the Gunditjmarra people manage this land and seascape providing a valued food source and food security as well as a product to sell, these targets may be addressed.

This is a bioculturally diverse system, as the nomination notes, “The Budj Bim Cultural Landscape exemplifies the dynamic ecological-cultural relationships evidenced in the Gunditjmarra’s deliberate manipulation and management of the environment” (WHL 2019a, b). The inscription on the World Heritage List of the Budj

Bim Cultural Landscape raises the appreciation of this deep-time aquaculture system managed by traditional owners for themselves, in harmony with their neighbors and the local authorities, in a manner that aids in future recognition and protection. Taken together, this aquacultural landscape reflects the entangled aspects of culture, society, economy and environment sustained over time by Indigenous people as owners and caretakers of their place.

4.6 Jackson Park, Unites States, Designed Historic Landscape

Drawing on a recent work of heritage landscapes to uplift a degraded nineteenth-century urban park, the collaborative project reversed insensitive changes over time and addressed ecosystem restoration, historic design, local use and resilience together. Jackson Park is a community asset as well as a heritage asset listed as a National Historic Landmark noting significance at the national level in the United States of America.

At Jackson Park in 2014, the low-performing conditions sparked a construction project based on ecological restoration of lands and fresh water bodies in this Olmsted-designed landscape. As that work was planned, the importance of the designed landscape heritage as an Olmsted-designed masterwork of landscape architecture was raised. The integration of the 1892 to 1897 Olmsted firm landscape architecture design and construction for the World Columbian Exposition and for the rebuilding of the park after the demolition of the fair required research, study and analysis of as-constructed landscape character for project application. Clarity of historic landscape character and contributing features formed a basis for integration of the designed landscape and the ecological enrichment for biodiverse habitat.

One clear message from local voices was that the park felt unsafe. Local users could not move through along well-built routes, or see around themselves as walked or ran. Because of that lack of a sense of personal safety, positive uses were limited, while undesirable and illegal ones could fill that vacuum. In response to this need, the shaping of functional circulation added both project construction access and future community uses. Adding to the dual purposes of historic character and habitat improvements, project plans directed the creation park paths, based on the historic path system character, to enable construction access and for park users to move through the landscape effectively and safely and enjoy experiencing the park land and waterscapes. Within that circulation system, areas overlooking the lagoons along these routes were built to replace the missing historical resting areas and adapt locations to current topography and shoreline configuration.

Photographs taken before and after the construction project capture a particular area where a truncated lagoon left a derelict scar (see Figs. 4.3 and 4.4). Excavation, grading, plantings and paths soften new margins of the former lagoon to shape a habitat rich, scenic passage in the parkland. Overall the project used more than 300



Fig. 4.3 Before the project degraded land and waterscape at the Haynes Bridge in Jackson Park (Courtesy O'Donnell/author)

diverse native plant species that were all native within the Chicago 500-mile radius 1400 new native trees 330,000 new native shrubs over 1,000,000 flowering forbs and grasses, across 10 ecosystems types. This greatly improved habitat was designed by a collaborative team of landscape architects, ecologists and civil engineers, to shape appropriate design and to reflect the two Olmsted office design of the 1890s recasting lost and degraded spatial organization, access, views and details.

This planning and implementation project links directly to several of the UN SDGs integrating sustainable development into both project shaping and outcomes. There are several goals touched on in this project including Goals 10 Reduced Inequalities, 11 Sustainable Cities and Communities, 13 Climate Action, 14 Life below Water, 15 Life on Land and 17 Partnerships for the Goals with specific targets met such as 11.7 that provide universal access to safe, inclusive and accessible, green and public and 14.2 sustainably manage and protect marine and coastal ecosystems. By uplifting an urban park sustainably, it becomes more resilient. The work addresses Goal 13 Climate Action: by enhancing the ability of the park to accept and respond to climate shocks of heavy rainstorms and high winds; by stabilizing terrestrial and aquatic soils with native plants; by improving habitat for biodiversity; by responding to climate-related drought with tough native plant selection. Lagoon water quality was improved with native plantings along water margins and on banks.

Goal 15 Life on Land was enhanced through biodiversity improving overall habitat, and for park users the enhanced landscapes offered daily enjoyment, and



Fig. 4.4 After the project work, a vibrant scenic landscape and path to enjoy it (Courtesy O'Donnell/author)

positive contact with nature, in a designed park offering scenic beauty. Inequalities were addressed by improving circulations for physical access and enhancing a sense of safety through visual access, welcoming positive uses by park neighbors, city residents and visitors. Walking, running, boating, fishing and other park use activities support overall health and well-being. Today, this historic park functions better for the community with the 10,000 linear feet of pathways for daily use and plantings predominantly below eye to reinforce a sense of personal safety. A richer ecology is also evident with diverse biomes of healthy land and water plants hosting pollinators, birds, fish, reptiles and more. The project welcomed locals and visitors to a safer, more scenic and biodiverse place, enhancing resilience throughout the public park landscape.

4.7 UNESCO HUL and Indian Urban Heritage

A third group of examples concentrates on the heritage of urban cultural landscapes of community, memory and spiritual value, an important subject of the 2020 symposium that brought forward this book. The UNESCO Recommendation on the Historic Urban Landscape (HUL), adopted as a global soft law for urban heritage guidance in

2011, is a particularly useful tool for addressing historic cities, towns and villages. HUL is an approach to urban heritage that recognizes the complexity of human settlements, places shaped by the nature of the site and the activities of people over time and continuing to evolve. Urban heritage generally fits into the World Heritage cultural landscapes definition of an evolved continuing cultural landscape and may also include designed and associative cultural landscapes and places within historic settlements. Both tangible heritage and intangible heritage reside in urban places. In HUL, the historic urban landscape is defined as: (UNESCO HUL 2011):

8. The historic urban landscape is the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of “historic centre” or “ensemble” to include the broader urban context and its geographical setting.
9. This wider context includes notably the site’s topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary, its infrastructures above and below ground, its open spaces and gardens, its land use patterns and spatial organization, perceptions and visual relationships, as well as all other elements of the urban structure. It also includes social and cultural practices and values, economic processes and the intangible dimensions of heritage as related to diversity and identity.

The HUL approach aims to conserve and manage the urban environment sustainably, recognizing the dynamic and the multi-functional qualities of settlements. Four tool groups are advanced in HUL, requiring a context of good governance to fully activate. They include: 1. Civic Engagement Tools; 2. Knowledge and Planning Tools; 3. Regulatory Systems; and 4. Financial Tools. As heritage professionals, we must recognize and activate these tool groups to uplift the heritage of cities.

Urban conservation initiatives may draw on all or some of these tool groups. For example, a project to recognize and uplift urban heritage may begin with a community-based identification process to document local heritage, employing elements to tool groups 1 and 2.

As a nation with a long, rich past, there are a wealth of urban heritage settlements across India pressured by the dense population and an urban poor that gravitates to degraded historic areas. From 2005 to 2014, JnNurm, the Jawaharlal al Nehru National Urban Heritage Renewal Mission, brought a focus to the incredible depth of urban heritage across India. For the historic core of Jaipur, an ancient Rajasthan city founded in 1727, core city heritage mapping in 2005 identified a broad overview of built heritage and a detailed listing, to serve as an early step. The development of a Jaipur Heritage Management Plan, 2007, was foundational, marking a first for contemporary Indian city planning tools. The JnNurm initiative on historic city bazaar revitalization underpinned subsequent renewal actions for the walled city bazaar to improve streets and heritage buildings. The Jaipur bazaar is an exceptional urban heritage of local economic activities and traditions (Fig. 4.5). However, a specific Jantar Mantar World Heritage Site Management Plan added to the knowledge and planning toolkit for both managing and monitoring Jaipur urban heritage.



Fig. 4.5 Jaipur bazaar area is a vessel of local tangible and intangible heritage, uplifting the economy and society through traditions and practices (Courtesy O'Donnell/author)

Training programs to bring skills into the future conserved and reinforced craft skill development to underpin appropriate conservation works on urban built heritage renewal, as well as to provide employment for craftspeople. As another important benchmark, the Jaipur integrated Master Plan 2025 which has integrated the heritage management plan for the core city into that city-wide plan (INTACH 2015).

In terms of the UN SDGs, and external viewpoint could consider aspects of Goal 1 No Poverty, Goal 3 Good Health and Well-Being, Goal 8 Decent Work and Goal 11 Sustainable Cities and Communities all converge in the efforts carried out to uplift Jaipur.

Perhaps partially in response to these efforts, India brought forward a successful inscription the Jaipur City as an exceptional, indigenously planned city located in a level valley continues to express its spatial organization, laid out on a grid system. The World Heritage nomination details the relevant criteria (WHL Jaipur 2019):

- ii- to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in . . . town-planning, as a planned city departing distinctively from medieval city layouts and in response to Mughal guidance on monumental urban form; iv- to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living; and vi to be directly or tangibly associated with events or living traditions . . . with artistic and literary works, for its craft traditions.

Another important example from India comes from Ahmadabad, with a walled city core sited in the fifteenth century and evolved to the present. As an early focus, a Ford Foundation funded study in 1984 provided recognition of Ahmadabad's heritage, as evidence of urban decline, demolition of traditional havelis and intrusions into the city's cohesive historic fabric-sparked concerns. Stabilization and community-based projects resulted. A 1997 walled city plan for revitalization adds important aspect of the urban cultural landscape, the need to provide more pedestrian space for ease of movement, as well as the needs for traditional building restoration. Urban landscape heritage funding has been applied to the Manek Burj wall, the bird feeders and revival of subterranean water tanks. Specific projects have addressed stabilization and renewal of the public, religious and private historic structures. Initiatives to uplift knowledge of the urban heritage include a heritage walk, a freedom walk including sites of Mahatma Gandhi, a new public open space interpreting a local poet, rickshaw driver training, neighborhood signage and street theater performances.

In 2017, it was declared India's first World Heritage City, recognizing heritage values. As the capital of the State of Gujarat, the nomination notes that "a rich architectural heritage from the sultanate period, notably the Bhadra citadel, the walls and gates of the Fort city and numerous mosques and tombs as well as important Hindu and Jain temples of later periods. The urban fabric is made up of densely-packed traditional houses (pols) in gated traditional streets (puras) with characteristic features such as bird feeders, public wells and religious institutions" (WHL 2017). Criterion ii is employed in the inscription to note the settlement planning, historic architecture and a high level of local craft expressions at various scales. Criterion v is also cited as a hierarchy of public community spaces, streets and close packed neighborhoods that create community cohesion. In Ahmadabad, the streets, squares, small charbaghs or four-part quadrilateral gardens, religious buildings and grounds and the river all make contributions to the city's heritage (see Figs. 4.6 and 4.7).

An exemplary undertaking in Delhi, India begins with a recognized monument and enlarges to include a nursery site for employment and an adjacent neighborhood. The expansion of the heritage intervention addressing Humayan's Tomb, a 27-hectare garden tomb complex, World Heritage inscribed in 1993, grows to encompass uplift of the adjacent Nizamuddin Basti neighborhood (Fig. 4.8; INTACH 2015). These initiatives are carried out by the Aga Khan Foundation, Aga Khan Development Network and Aga Khan Trust for Culture. The work began at the tomb main site restored over several years, and in 2009, neighborhood mapping identified issues and problems to address in Nizamuddin Basti. The neighborhood benefitted from early projects to engage the community toward improving the landscape of streets and pedestrian access and recapturing five acres of anti-socially occupied, exclusionary public parks to return them to inclusive community access and use. Neighborhood programs developed to present the concept of caring for community heritage through street plays, performances, visuals and discussions. A series of neighborhood urban renewal undertakings address health, housing, sanitation, waste management, education and vocational training. This work embodies the firm belief that uplifting places for the people who live there also benefits pilgrims and tourists. In this Delhi example



Fig. 4.6 A traditional street gate or *pura* in Ahmadabad defines areas and ornaments public space displaying traditional stone masonry skills (Courtesy O'Donnell/author)

of urban heritage revitalization, the HUL approach has been thoroughly activated for heritage and community benefits to bring forward a more sustainable city.

A final example draws on the cultural landscapes of integrated “naturecultures” exploring the relationships between valued natural sites and adjacent communities where conservation and control of human activity are paramount to protection of biocultural assets. In China, the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I) is World Heritage listed as a site of nature (WHL 2019a, b). Applying only criterion x to contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation, the inscription in 2019 enumerates the wealth of



Fig. 4.7 A small charbagh, quadrilateral garden, at the Sultan Ahmad Shah Mosque, provides a welcome open space and place of respite in Ahmadabad (Courtesy O'Donnell/author)



Fig. 4.8 Restored Humayan's Tomb, Delhi, India, hosts a large school group learning about this historic place (Courtesy O'Donnell/author)

life in these wetlands, mudflats, shorelines and seascapes to include 680 vertebrate species of birds, mammals, fish, amphibians, reptiles and zoobenthos with a significant number of species that are rare or threatened. Present year-round or in migratory patterns along the East Asian-Australasian flyway, these diverse species rely on this earth and sea scape for survival. The lands are adjacent to these important Yellow Sea natural sites and heavily populated with human activity, road systems, villages, towns and agriculture, all potentially polluting and degrading these critical environments. While World Heritage inscription is not a panacea, it is helpful in raising the profile and significance of an inscribed property to a national and international level.

Can the influence of this World Heritage inscription be assessed in relationship to the UN SDGs? As an example, drawing on the inscription narrative, a selection of specific goals that address the conservation and community actions that this property relies on serves as an instructive exercise. The relevant elements of the UN 2030 Agenda goals and targets include the following (UN 2015):

Goal 3. Good Health and Well-Being, particularly target 3.9, By 2030 substantially reduce hazardous chemicals and air, water and soil pollution

Goal 6. Clean Water and Sanitation, with a focus on 6.3 By 2030 improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials

Goal 9. Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation, particularly 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being,

Goal 11. Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable. particularly 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage and 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

Goal 12. Responsible Consumption and Production focusing on 12.2 By 2030, achieve the sustainable management and efficient use of natural resources, and 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse, as well as 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

Goal 13. Action to Combat Climate Change and Its Impacts, to address 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters

Goal 14. Life Below Water, Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development particularly focusing on 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular

from land-based activities, including marine debris and nutrient pollution and 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans **Goal 15.** Life on Land, Protect, Restore and Promote Sustainable Use of Terrestrial Ecosystems, Sustainably Manage Forests, Combat Desertification, and Halt and Reverse Land Degradation and Halt Biodiversity Loss addressing 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, and 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

It is obvious that conservation at the nature-culture interface requires strong regulation and actionable guidance that is supported across society for the protection and betterment of all species. A series of Chinese and local level governance frameworks, guidance, regulation and infrastructure seeks to conserve and effectively manage the Migratory Bird Sanctuaries by clearly defining required human practices and constraints to support the necessary protections. This inscribed heritage nomination notes that there is an urgent need for broader national and multi-national strategies to ensure conservation of tidal areas as this flyway traverses two hemispheres and 22 countries. This recent property inscription advances the potential for a conscious integrated planetary conservation approach where enlightened purposeful cooperation between the countries along the East Asian-Australasian flyway may prompt action on shared concerns for the planet's species. An initiative to collaborate across the flyway addresses UN SDGs Goal 17 Partnerships.

4.8 Conclusion

In conclusion, the time is now to advance our works in cultural landscapes integrating nature and culture for highly sustainable solutions. Pope Francis captures in his appeal what we face, "The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development" (Vatican 2015).

Effective guidance, from recent cultural landscape endeavors, aids in charting the way forward to address the interrelated challenges of our times. Working for the protection and enhancement of our shared heritage of cultural landscapes can increase our ability to engage in inclusive dialogues shaping shared outcomes at local levels that resonate together to form the needed momentum toward sustained carbon drawdown, effective climate response and planetary survival.

References

- Basso KH (1996) *Wisdom Sits in Place: Landscape and Language Among the Western Apache*. University of New Mexico Press
- Canada Commission for UNESCO (2019) *The North American Declaration on Biocultural Diversity*. The Atateken Declaration. May 2019. <https://www.cbd.int/portals/culturaldiversity/docs/north-american-regional-declaration-on-biocultural-diversity-en.pdf>
- Haraway DJ (2003) *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Prickly Paradigm Press, Chicago
- Haoa MV (2021) UNESCO The Tracker Culture & Public Policy. December. p. 6. https://en.unesco.org/sites/default/files/tracker_2.0_issue_15_eng_0.pdf
- INTACH (2015) Compendium of Good Practices Urban Heritage in Indian Cities. https://www.niua.org/pearl/sites/default/files/books/GP-IN4_HERITAGE.pdf
- Negi CS (2010) Traditional Culture and Biodiversity Conservation: Examples From Uttarakhand, Central Himalaya. 1 August. <https://bioone.org/journals/mountain-research-and-development/volume-30/issue-3/MRD-JOURNAL-D-09-00040.1/Traditional-Culture-and-Biodiversity-Conservation-Examples-From-Uttarakhand-Central/10.1659/MRD-JOURNAL-D-09-00040.1.full>
- Persic A (2010) Linking Biological and Cultural Diversity: UNESCO 2010 Declaration on Biocultural Diversity. UNESCO Division of Ecological and Earth Sciences, Man and the Biosphere Program, International conference on Biological and Cultural Diversity, Montreal
- United Nations Conference on Environment and Development, Rio de Janeiro, Brazil. 3–14 June 1992
- United Nations Convention on Bio-Diversity (2010) Declaration on Bio-Cultural Diversity, Montreal, p. 1 “Acknowledging the important progress made in building the knowledge on the links between biological and cultural diversity and to mainstream it into practices to ensure environmental, economic, social and cultural sustainability and human well-being”
- UNESCO (2021) The Tracker Culture & Public Policy. December. https://en.unesco.org/sites/default/files/tracker_2.0_issue_15_eng_0.pdf
- UNESCO (2011) Recommendation on the Historic Urban Landscape, adopted by the General Conference at its 36th session. Paris, 10 November
- United Nations General Assembly (2007) Declaration on the Rights of Indigenous Peoples (UNDRIP), 107th plenary meeting, 13 September
- United Nations General Assembly (1987) Report of the World Commission on Environment and Development: Our Common Future. 20 March. Transmitted to the General Assembly as an Annex to document A/42/427—Development and International Co-operation: Environment; Our Common Future.
- United Nations (2000) Millennium Declaration (Resolution 55/2), 8 September
- United Nations (2015) Transforming Our World: the 2030 Agenda for Sustainable Development. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>
- United Nations (2002) World Summit on Sustainable Development. Johannesburg, South Africa, 26 August to September 4
- Vatican, R.: Encyclical Letter *Laudato Si'* of the Holy Father Francis, On Care for Our Common Home. https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html. 24 May 2015
- World Heritage (2021) Operational Guidelines WHC.21/01, 31 July. <https://whc.unesco.org/en/guidelines/>
- World Heritage List (2019a) Budj Bim Cultural Landscape, Australia. <https://whc.unesco.org/en/list/1577>
- World Heritage List (2017) Historic City of Ahmadabad, India. <https://whc.unesco.org/en/list/1551>
- World Heritage List (2019b) Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I), China. <https://whc.unesco.org/en/list/1606>