

A Landscape-based Approach to Urban Heritage Management: People, Spatial Biography, and Ecosystem



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ABSTRACT

This article first identifies the current definition of urban heritage that includes both “old” and “young” monuments. Their protection has also shifted from solely preserving “old” values into a more holistic process to retain “old” values and manage the change in their adaptive reuse to gain “new” values, towards a more people-centered and landscape-based approach. Furthermore, a concept of ecosystem for urban planning and development is introduced, involving both the worlds of people, flora and fauna, and the sphere of spatial biography as well as other (in)tangible contexts, aiming to develop sustainable human habitats. The management of the change in human habitats as an ecosystem is built on the protection of place identity, which is the manifestation of historic urban landscape’s tangible and intangible attributes. Public participation is also recognized to be an important tool. To implement such a landscape-based approach, experts need to play an active role in promoting wide public participation while digital technologies open new ways for outreach, co-creation, and citizen-led decision-making platforms such as social media, (gamified) apps, and digital urban commons. Through public participation, local spatial biography can also be better identified, which extends people’s footprints from the community to local individuals at micro-scaled features within urban tissues. Finally, this article proposes recommendations for landscape architects to share the responsibilities of urban planners and heritage professionals, integrating heritage management into long-term sustainable urban development.

KEYWORDS

Urban Heritage Management;
Historic Urban Landscape;
Landscape-based Approach;
Public Participation;
Urban Ecosystem;
Spatial Biography

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HIGHLIGHTS

- Argues that current urban heritage management shifts to protect both “old” and “young” monuments, seeking to manage change in sustainable human habitats
- Proposes an ecosystem-based evolutionary approach for urban heritage management from a landscape-based perspective
- Reveals that new digital technologies can facilitate public participation in urban heritage management

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1 Contemporary Urban Heritage Management: Managing “Change”

The current international approach to urban heritage management has moved beyond the static preservation of physical structures and materials to a dynamic and more inclusive people-centered process that is integrated into sustainable urban development. The conventional approach to urban heritage protection, which was born in Europe, is material-based and expert-driven. This European approach is primarily focused on the conservation of heritage materials, seeking to “freeze” heritage originally, wherein experts were the only group to identify heritage values and claim what was worthy of preservation. However, with the definition of heritages broadened, urban heritage includes both “old” and “young” monuments, and the designation and management of urban heritage need to be developed in a more inclusive and dynamic manner. Thereby, the protection of urban heritage has gradually shifted from unilateral preservation of “old” values into a more holistic process to retain “old” values and manage the change in its adaptive reuse to gain “new” values^{[1][2]}. The “new” values represent cultural metaphors, physical frameworks, and ecological stocks within historic urban landscapes. Regarding this evolving thought of heritage management, it is critically important to introduce a concept of the living environment as a complex system^{[3][4]}. This system lens aligns with a holistic landscape-based approach to heritage management that involves the specific local historical identities, current needs, and future aspirations of people, economy, and flora and fauna, both in their material and immaterial expressions of spatial biography, to develop sustainable human habitats^[5]. Therefore, under such a complex system protocol, a series of concepts including place identity, public participation, historic urban landscape, and people-centered approaches have been introduced into the field of urban heritage management.

Place identity is the material expression of local communities, their daily lifestyles, and socio-economic development. So, the undervalue of place identity may limit the identification of local heritage resources and their contexts, and one primary obstacle is that local communities are generally not empowered enough as owners or contributors to fully take responsibility for local human habitats and their future evolution. The challenges of empowering local communities represent the lack of public awareness and participatory capacity, which are often regarded as not only European testaments but also worldwide problems in urban heritage protection and management^[6]. Considering dynamic changes in human habitats, the integration of urban

heritage management into current urban planning needs to value the role of place identity. Initiatives can be traced back to the profound ambition of bringing all related perspectives of human habitats pertaining to socio-economics, natural ecology, and spatial morphologies together. However, despite some urban planners having been aware of the importance of this integration, the reconciliation between urban heritage management and planning is still challenging because the empowerment of local communities as an important tool is limited up to now. This fact implies the necessity for establishing a method to achieve more adaptive compromise and decision-making between the intricate situations in the built environment with cultural significance and socio-economic development potential.

Therefore, it could be easier to achieve this integration when discussing the historical legacy and cultural heritages dating back to approximately before 1900, namely the older artifacts. Those structures are typically regarded as urban artifacts or monuments and are subject to legal protection and institutional preservation, which simplifies the decision-making process in evaluating various public interests. However, when addressing the management of younger urban heritage or monuments, which often lack legal protection, complications and challenges arise. These younger heritage properties generally lack protections from specific laws and accessible established procedures are also limited, which leads to the uncertainty of identifying their values and weighting to other factors of urban planning. Therefore, most of the younger heritage properties, in general, lack effective identification and utilization of their attributes and values. This disparity in practice between legally protected old and unprotected young heritage values underscores challenges to achieving such holistic heritage protection and management while building on a more holistic concept of place identity.

Conceptually, the fundamental approach to achieving effective integration, especially for young heritage, requires a methodology that commits to achieving effective problem-solving and resource-mining beyond the literal laws or regulations. This commitment requires establishing a platform that can communicate to share interests and common agreements with various communities. One key feature of this platform needs to establish a productive participatory mechanism to sufficiently reflect the varied attitudes, evaluate the pros and cons of the individuals to holistic interests, and form common interests. It is also necessary to engage broader disciplines to contribute to platform establishment, transcending the borders of heritage management into broader fields of landscape, urban planning, sociology, and ethnography. Meanwhile,

it is essential to be aware that some obstacles can represent varied manifestations contingent on different global contexts. Therefore, contextualism has become a generic checklist for global navigation, playing out as well as developing the platform for achieving effective public participatory mechanisms.

Efforts have been made over the past 20 years to change the mindset of conventional urban planners and heritage professionals, enhancing the management of historic urban landscapes and contributing to sustainable development. People have gradually been recognizing that cultural heritage should not be seen as something static but rather as an opportunity for progressive development. The overwhelming poles between urban heritage and planning started to fade away. Undoubtedly, collaboration can be possible only when its working mechanism relies on mutual understanding and enlightenment among varied social perspectives. Spatial development revolves around the concept that human habitats converge the interconnectedness of society, economy, and environment (both natural and cultural) in a historical process of evolution in which development builds on what is inherited. This holistic approach aligns with the core principles of sustainable development, emphasizing the convergence of people, planet, and prosperity as a resilient ecosystem in the evolutionary continuum of history. This perspective can be held as a potential common ground for mutual understanding and future collaboration among various heritage communities.

2 Urban Ecosystem, Historic Urban Landscape, and Spatial Biography

The emergence of an ecosystem-based evolutionary approach to the city is a noticeable shift in the management of urban heritage, which sets a comprehensive theoretical foundation for urban conservation and opens a common ground for integrating this into urban planning and development. An element whether it is created by humanities or nature can be equally regarded as one of the crucial components of a broadly-speaking ecological system approach. Based on this ideology, the status of built environments, urban artifacts, and chartered heritage properties need to be equally valued, which highlights the importance of understanding them as constituting elements of this greater urban ecosystem. From a planetary standpoint, it makes sense to re-utilize these stock resources as they are available, serving as tangible material and intangible cultural assets. Besides, the theory of the city as an ecosystem in evolution has been foundational to the schools of thought from the mid-nineteenth-century Park Movement, Garden

City Movement, and Regional Planning Movement, to current days' movements of the Compact City, Networked Regions, and Place Making^[7].

In line with that, the concept of historic urban landscape has been proposed and it lies on a broader scope, encompassing both tangible and intangible elements of specific built environments, integrating the different scales and aspects of the city, as well as city life, rather than solely focusing on individual monuments or cultural fragments^{[8][9]}. This conceptual approach can be understood as a dynamic process to achieve a balance between economic development, social cohesion, and the liveability of human habitats for the ultimate goals of urban sustainability^{[10][11]}. Also, a particular set of historic urban landscapes can represent a specific stage in the evolution of society, potentially recorded through documented photography. The historic urban landscape can reflect the changes in society through diverse lenses, spanning from social structures to morphological characteristics. The approach of the historical urban landscape serves as a supplementary mechanism for the integration between policies and methodologies of urban heritage management, aligning them with the overarching objectives of urban development, while acknowledging customs and ancestral values embedded within diverse cultural milieus^[10]. Through this approach, the local community and their individuals can extend their intangible cultural narratives from the tangible landscape, artifacts, and buildings, and maintain the characteristics of the local urban landscape.

The term “spatial biography” means that intangible elements, like collective memories and place identity, of the historic urban landscape are embedded in the “material expression” and urban morphological set-up^[12]. This term is highly relevant to a holistic system approach of the city and a societal historical evolution thinking regarding the material spatial expression of social and economic processes. Besides, the metaphors behind this term are fundamentally associated with a potentially engaged persona. For instance, generally, the canals as well as the warehouses and institutes along them in Amsterdam (Fig. 1) are often perceived as a logistical system for storing, trading, and transporting purposes. However, when examining the personal biographies of Jewish Individuals during World War II, they were persecuted and targeted for extermination by Nazis, and the buildings along the canals played a significantly different role as a secret hideaway parallel society compared to their usual function in the city.

Meanwhile, the spatial biography can also extend people's footprints from the community to local individuals at micro-scaled features within urban tissues. An example is also in Amsterdam,



1. A canal in Amsterdam

where an exhibition explored the experiences of Jewish refugees seeking safety by hiding in various shelters and hideaways throughout the city. Using spatial representations, artists presented a collection of biographies that depicted the specific spatial settings where these acts of concealment took place. While most individuals were hidden behind cupboards in separate rooms or attics, there was a poignant reminder of the few who found refuge under the floors. This unique approach intertwines personal narratives significantly and provides an extraordinary perspective in observing the built environment from both tangible and intangible urban heritage.

3 Public Participation in Inclusive Urban Heritage Management

The increasingly aroused issues of conventional expert-driven practices necessitate the introduction of public participation in urban heritage protection, aiming to obtain community knowledge, enhance spatial justice, and foster inclusive urban ecosystems^{[13][14]}. To achieve this expected vision, it is important to evoke the awareness of public engagement, empower local core stakeholders, adjust the unreasoning framework of law and regulation, and unlock the key values of experts. An important method to empower local inhabitants and contribute to community-building is the spatial biographies, which gather individual and collective memories and narratives in which social, economic, and environmental aspects come together constituting place identities^[15].

The essence of public participation is to involve diverse stakeholders, especially local host communities, and redistribute the power within the management and protection of urban heritage to these communities. The major obstacles to public participation are how to awaken local people, and how to include

their interest in urban heritage management processes. Another requisite enhancement involves a discussion about how to reasonably empower the public. Moreover, a subset of influencers is anticipated to stimulate the awareness of the public towards self-empowerment, notably within European and West Coast American contexts. The management framework of collaborative urbanism has attracted many debates. For example, should public participation be accessible only at the very end stage, preferably at the beginning, or throughout the whole procedure? Should ordinary people merely share information, or do they possibly play a role in decision-making?

Besides the enhancement of the management framework, the technical methods are also critically important to achieve public participation. Conventionally, face-to-face civil discourse, workshops, interviews, and questionnaires are considered to be effective approaches to empowering the local community. In recent years, digital technologies, such as the increasingly decentralized internet, thriving big data, and artificial intelligence significantly alternate the ideas of the public. It is important to understand that cutting-edge technologies require adaptive cooperation with conventional ones instead of mechanical replacement. New digital technologies including social media, (gamified) apps, and digital urban commons can be regarded as potential methods to evoke the awareness of local inhabitants and enhance their participation in urban heritage management. Smart city technologies, which represent future expectations, can significantly educate the masses and provide a great data resource for analytical research of the public's attitudes. For instance, some interactive gaming approaches create a dynamic way of knowledge co-creation and contextual engagement. These advancements make massive data embedded in social networks that can be further collected, mined, and analyzed, which also enhances the efficiency of the collaboration between experts and the government.

The development of digital technologies has also decreased the thresholds of public participation in urban heritage management. Conventionally, public participation always relies on people's willingness to attend in-person meetings after work. In contrast, digital websites and social media apps offer lower thresholds in management and support, which enable iterative and interactive interactions for participation, as push messages can be sent to obtain instant reactions and gauge opinions^[9]. Besides, this emerging field presents new opportunities for research, pilot projects, and living labs to explore its potential implications. Essentially, different analytical instruments can be utilized for measuring engagement degrees, enhancing community capacity

as well as leveraging unintentional attitudes. For instance, digital footprints on social media for data analysis can add another dimension of public participation and interest in historic urban landscape management.

Furthermore, besides technical involvements, it is also essential to optimize the existing institutional systems and laws, which can fundamentally position the roles and interests of the stakeholders, clarifying the procedures of public participation. Existing laws are not enough for the management framework of public participation in urban heritage management. The current institutions of heritage protection enable questions and discussions in formal settings more opportunities, whereas neglect the values of the informal setting of public participation. Although formal moments are also necessary for the established decision-making process, over-formalized scenario investigation, analysis, and prioritization without pre-consultancy can also be frustrating or confuse the participating local community, hardly presenting their true thoughts and interests. For instance, after massive data-mining and online inquiries, some traditional informal settings, like a coffee chat and meeting, can also be deemed to be accessible to establish an equitable conversation platform with the local community about how to protect their heritage.

Moreover, to avoid more trial-and-error processes, it is critically essential to figure out the key values of various experts for enhancing public participation in heritage management. First, the creation and maintenance of a participatory framework requires an extensive combination of different disciplinary professionals, varying from heritage managers and urban planners to landscape architects, which is a time-consuming process and requires extra resources. Neglecting this aspect can lead to failure and some issues may arise that require going back to restart. Besides, professionals need to rethink their relationships with the public in participatory processes. How to reduce exclusive actions and adopt a more structured interactive setting can be the two critical questions for professionals to think over. More specifically, establishing an equitable interactive setting between various stakeholders can reflect their real interests and thoughts, which is more accessible to navigating the talent-collection decision-making process. Further, a potential methodology to establish the local spatial biography can be introduced here. For instance, it is better to designate comprehensive conversations including both casual ethnographic investigation and formal inquiry to replace the conventional 50-minute open-ended question-and-answer section. This process goes beyond the tangible material expression but delves into a more people-centered way focusing on what the local community values

and cares about. From this perspective, it is required to formalize the intangible heritage values within a certain urban context and explore what it truly means to the people living there. Essentially, it is pivotal to explore a dynamic combination between the different settings with contextual public participation processes, to dynamically maintain urban ecosystems inclusive and sustainable.

4 Landscape Architects, System Approach, and Urban Historical Resources

Encountering the dynamic shifts in managing urban heritage, for instance, integrating the approaches of the city as a system in evolution and historic urban landscapes can be supported by not only teaming up heritage managers with urban planners but also with public space and landscape designers. Conventionally, landscape architects, at the core of their profession, have had a unique system perspective towards the built environment rooted in natural ecosystem thinking: a natural system in which soil, water, flora, and fauna are interrelated elements of a spatial network^[16]. So landscape architects can be well situated to contribute to a holistic system approach to the city, through an integrative consideration of urban design and planning strategies, spatial layout and appearance, and social and economic systems within the natural system^[17]. Essentially, such integration of urban sociology, urban design, and planning with landscape architects can be traced back to the 19th century. Figures like Frederic le Play and his pupil Patrick Geddes sought to comprehend the human environment by considering spatial qualities, social structures, and economic frameworks^{[7][18]}. They approached this by examining the interplay between work, family, and place, whose thoughts were rooted in a Darwinistic understanding of nature and how environmental conditions shape different types of economies, such as agrarian and fishing communities. This school of thought continues through CIAM (Congrès International d'Architecture Moderne), the Newtown Movement into nowadays Movements of Greenways, New Urbanism, and so forth.

In contemporary days, an increasing number of public space and landscape designers engage in the design and management of natural terrains, botanical gardens, and national parks and also broader built environments, encompassing civic parks, historic sites, roadways, and plazas. This trend can be seen from recent practice, especially in the Netherlands and the United States, for instance, the Máximapark (Fig. 2) designed by Adriaan Geuze from the West 8 and the High Line (Fig. 3) led by James Corner from the Field Operations. Public space and landscape architects are



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2. Design of the Máximapark
3. The High Line in New York City

progressively discerning that their fundamental value for social currency is to reconcile conflicts and integrate agendas between natural ecology, urban development, and humanities networks^[19]. Therefore, the teaming up of urban sociologists, urban planners, and designers with public space and landscape architects, enables a truly holistic system approach to the city, bringing the expertise together to balance social, economic, and natural systems, taking on the historical identity of the city to develop spatial intervention strategies and plans to address future needs, challenges, and ambitions.

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从人、空间传记和生态系统视角 探究基于景观的城市遗产保护方法

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摘要

本文首先提出，当前的“城市遗产”定义既涵盖“旧的”古代遗迹，也包含“新的”近现代纪念物。对城市遗产的保护也不再单纯聚焦于其“旧的”价值，而转向一个更具整体性的过程——既要保留古代“旧”价值，也要随着遗产的适应性再利用而不断调整，以获得当代“新”价值，进而向着更加以人为中心、以景观为基础的方向发展。此外，本文还在城市规划和发展中引入“生态系统”概念，该概念涉及人类、动植物群落、空间传记及其他无形和有形环境，旨在发展可持续的人类栖息地。在对人类栖息地这一生态系统进行管理时，首先需要保护地方特性，因为它代表了历史性城市景观的有形和无形属性。同时，公众参与是城市遗产保护的重要实施工具，而专家学者在实践中需利用基于景观的保护方法，结合数字技术，为扩展服务、共创价值及构建公民主导的决策途径（如社交媒体、游戏化的应用程序和数字城市公地）开辟新路径。通过公众参与还可以更好地识别当地的空间传记，将人们的足迹从社区延伸到城市肌理中微观尺度下的个体上。最后，本文建议景观设计师与城市规划师和遗产保护专业人员通力协作，将遗产资源融入城市长期可持续发展的发展规划体系中。

关键词

城市遗产保护；
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- 城市遗产保护需包含“旧的”古代遗迹和“新的”近现代纪念物，以期适应可持续人类聚居地中的变化
- 通过基于景观的视角，为城市遗产保护提出生态的、动态演进的系统性方法
- 新兴数字技术可以促进城市遗产保护中的公众参与实施

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