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The Metamorphosis of Manama: Sustainable Integration of Leftover Heritage Buildings Through the Historic Urban Landscape (HUL) Approach

Saad Hanif [1,2], Nazish Abid [1,*] and Abbas Abdo Al Warafi [3,*]

[1] Department of Architecture & Interior Design, College of Engineering, University of Bahrain, Sakhir 32038, Bahrain; mhanif@uob.edu.bh or m.saadhanif@emu.edu.tr
[2] Faculty of Architecture, Eastern Mediterranean University, Famagusta 99628, Türkiye
[3] Department of Architectural Engineering, College of Engineering and Design, Kingdom University, Riffa 40434, Bahrain
* Correspondence: nabid@uob.edu.bh (N.A.); a.alwarafi@ku.edu.bh (A.A.A.W.)

Abstract

This study examines how the Historic Urban Landscape (HUL) approach, proposed by UNESCO, can support the integration of leftover heritage buildings while balancing conservation with sustainable urban development. Furthermore, it investigates how the HUL approach can contribute to Manama's ongoing efforts toward UNESCO World Heritage inscription aligning with the Vision 2030. The research adopts an exploratory case study methodology, utilizing qualitative research techniques including document analysis and fieldwork. The data analysis follows the six-step process of HUL, which focuses on managing and safeguarding these leftover heritage buildings as part of urban heritage, while field observations provide direct evidence of physical deterioration and underutilization. The analysis reveals persistent fragmentation within the historic core of Manama, despite multiple conservation phases led by state authorities. Findings highlight that, while the heritage buildings were deprioritized during the post-modernization era, their integration through the HUL approach can act as a catalyst in sustainable urban development. By providing a framework, findings illustrate that such integration will enhance socio-economic vitality, contributing to Manama's UNESCO inscription, after being on the tentative list for nearly a decade. The research findings are anticipated to inform Bahrain's Development Strategy of the Vision 2030, which emphasizes continuous strategic planning to guide policy decisions, emphasizing sustainability-oriented planning that responds to national opportunities and constraints.

Keywords: sustainable integration; historic urban landscape; leftover heritage; Manama; post-oil modernization; UNESCO; sustainable urban development

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1. Introduction

Since the early 20th century, more than thirty international charters, recommendations, and standard-setting documents concerning the management and protection of cultural heritage have been developed by organizations such as UNESCO, ICOMOS, DOCOMOMO and the Council of Europe. Primarily focused on the conservation of monuments, these documents gradually expanded beyond monumental or site-specific considerations during the 1960s and 1970s to encompass historic districts. By the beginning of the 21st century, these documents evolved further to include cultural landscapes as forms of living heritage,

introducing a more comprehensive understanding of the relationship between cultural heritage, society and city [1]. Since then, historic districts are increasingly recognized as vital media for transmitting cultural heritage across generations, as they embody complex layers of socio-cultural, socio-functional and socio-spatial significance [2,3]. Apart from the historical values, these historic districts also became an integral part of socio-economic vitality, contributing to heritage tourism, strengthening local crafts, and supporting broader urban development initiatives [4,5].

In 2005, the UNESCO Vienna Memorandum acknowledged, on one hand, the evolving understanding of cultural heritage, and, on the contrary, that rapid urbanization requires an updated, and integrative approach to conservation of the historic districts. The memorandum emphasized the importance of adopting perspectives capable of responding to local cultural contexts, peripheral expansions, all the while safeguarding heritage values within rapidly transforming cities [6]. Consequently, discussions surrounding the Historic Urban Landscape (HUL) approach were initiated, ultimately leading to UNESCO's 2011 recommendation advocating for a landscape-based approach to urban heritage management [7]. This framework conceptualizes the city as an interconnected and dynamic entity [1], promoting the integration of heritage conservation within broader urban planning and management strategies rather than treating heritage as a static and isolated element [8,9]. Although the UNESCO HUL approach provides a comprehensive framework for balancing heritage conservation with the pressures of globalization in historic cities, its implementation across diverse geographical and cultural contexts remains relatively limited [10–15].

Since the last decade, a growing body of scholarship has increasingly examined the application of the HUL approach within diverse geographical contexts, reflecting an emerging effort to contextualize the framework beyond its universal principles. Recent studies have explored HUL implementation in cities such as Bordeaux in France [16], Genoa and Bologna in Italy [17], Amsterdam in the Netherlands [18], Liverpool in the United Kingdom [19], Sarajevo in Bosnia and Herzegovina [14], Kuşadası, Aydın, in Turkiye [20], Guayaquil in Ecuador [21], Georgetown, Malaysia [22] and Kulangsu in China [23]. These studies demonstrate how local socio-cultural conditions, governance structures, and urban histories influence the interpretation and implementation of the HUL framework [14]. In a wider context, recent research has also adopted broader regional perspectives, addressing the applicability of HUL in the Mediterranean cities [24,25], historic cities of South Asia often subjected to colonial urban interventions [10,26,27], and coastal cities emphasizing their connection to maritime heritage [28–30]. Additionally, an emerging discourse on HUL is exploring the socio-cultural disparities between the global south and global east and calls for a better contextualization of the HUL approach beyond established framework, often gauged by UNESCO's lens.

Building upon this east–west dichotomy, recent HUL discourse also emphasizes the need for further research aimed at evaluating the adaptability and practical applicability of the HUL framework beyond its predominantly Inscribed World Heritage Sites [31]. This gap is particularly significant in the Gulf region, where accelerated post-oil modernization intersects with heritage conservation challenges, generating unique urban and socio-cultural conditions that require more locally responsive interpretations of the HUL approach [32,33].

Identifying this research gap, the study argues for the application of the HUL framework as a critical lens for examining the sustainable integration of the leftover buildings in a Gulf city that witnessed rapid post-oil modernization. Manama is situated along the northern coast of Bahrain, strategically positioned at the center of the Arabian Peninsula. Owing to its advantageous maritime location, Manama historically thrived as a major center of

international trade and cultural exchange. By the 19th century, Manama had evolved into a prominent maritime trade settlement integrated within extensive commercial networks linking the Gulf region with the broader Arab world, Mediterranean region, the Red Sea, and South Asia. This strategic role facilitated Manama's transformation into one of the Gulf's leading commercial centers of that time. This transformation occurred through the development of markets, neighborhoods, and religious institutions. The establishment of the region's first municipal government in 1919 marked the beginning of a new phase of modernization in Manama, which intensified following the discovery of oil in Bahrain in 1932—the first oil discovery on the Arabian side of the Gulf [34].

During the late 19th and early 20th centuries, Manama strengthened its position as a cosmopolitan trade hub under the influence of the British governance. The city's urban growth was characterized by the rapid expansion of harbor, oil industry and souqs, inviting a diverse migrant population for better economic opportunities. The multicultural nature of Manama was reflected in its marketplaces, such as Souq al-Ajam and Souq al-Yahud, which were associated with Persian and Jewish merchant communities, respectively. By the mid-20th century, transit trade constituted a substantial component of the city's economy, reinforcing Manama's socio-political significance along with the diverse socio-cultural fabric within the Gulf region [35]. Following the First World War, British imperial expansion further strengthened the city's regional role, positioning Manama as a central node of influence and governance in the Gulf [36].

Oil exportation accelerated Manama's transformation into a modern urban center and a focal point of the Gulf's post-oil modernization. Throughout the 1950s, the city developed into a major service and logistics hub supporting both Bahrain's economy and the wider regional oil industry. This phase of modernization introduced new architectural language that symbolized the emergence of a modern state. This language blended British colonial architecture with local building traditions, bringing a drastic change to its urban fabric [37]. In recognition of its historical and cultural significance, Manama was submitted in 2018 by the Bahrain Authority for Culture and Antiquities (BACA) for inclusion in the UNESCO World Heritage List under cultural criteria (ii) and (iii), highlighting its role as a distinctive example of maritime trade urbanism, diverse and tolerant socio-cultural fabric and early post-oil modernization in the Gulf region [34,38].

Hence, this research examines how the Historic Urban Landscape (HUL) approach, proposed by UNESCO, can support the integration of the leftover heritage structures in Manama while balancing heritage conservation with sustainable urban development. It further seeks to explore how HUL's approach can contribute to Manama's ongoing efforts toward UNESCO World Heritage inscription and align with the Bahrain Vision 2030. The research adopts an exploratory case study methodology, utilizing qualitative research techniques including document analysis and fieldwork. The data analysis follows the six-step process of HUL, which focuses on managing and safeguarding these leftover heritage buildings as part of urban heritage, while field observations provide direct evidence of physical deterioration and underutilization. In doing so, the study contributes to the HUL discourse by demonstrating how the sustainable integration of leftover buildings can enhance socio-economic vitality, accelerating the historic core's progress toward UNESCO designation, after being on the tentative list for nearly a decade.

2. Concept Definition

2.1. Historic Urban Landscape: Emergence and Relevance

The concept of the UNESCO Historic Urban Landscape (HUL) emerged as an integrative framework aimed at managing urban transformation within historic districts through context-sensitive and adaptive strategies. The HUL approach facilitates a comprehensive

understanding of the attributes that contribute to the uniqueness and distinctiveness of historic districts or the historic cities, including architectural heritage, urban morphology, socio-cultural fabric and the broader sense of place and cultural identity. Instead of considering heritage as an isolated physical entity, the framework conceptualizes historic districts as dynamic and evolving landscapes shaped by socio-cultural and socio-environmental complexities [14]. Central to the conceptual development of HUL framework is the emphasis on participatory governance and stakeholder–community partnership. These two prioritize the identification of heritage values, collective visions for development, and shared urban goals through processes of dialogue, negotiation, and a fair identification of stakeholder engagement (as opposed to top–bottom initiatives). Its theoretical foundation is rooted in the Recommendation on the HUL adopted by UNESCO, which established the principal components guiding the framework. This was later complemented by the HUL Guidebook [39], developed to facilitate the practical implementation of HUL principles by translating its theoretical foundations into applicable planning, conservation, and urban management strategies.

2.2. Historic Urban Landscape: The UNESCO Approach

The UNESCO Recommendation on the HUL, adopted on 10 November 2011, marked a significant shift in international heritage discourse by recognizing urban heritage—both tangible and intangible, as a critical resource for enhancing social cohesion—and supporting sustainable urban development within rapidly changing global contexts [7]. The Recommendation emphasizes that heritage conservation should not be viewed as an obstacle to urban growth, but rather as a strategic mechanism for balancing transformation and progress through sustainable urban development [7]. As the first major UNESCO instrument concerning the historic environment specifically, instead of monuments in more than three decades, the HUL Recommendation introduced a holistic and integrative approach to urban heritage conservation (Table 1).

Table 1. Charter and documents related to heritage management adapted from Leila and Albarqawi [40] and Marthya et al. [33].

Conservation Approach	Charter Name	Focus
Monument Conservation	The Athens Charter, 1931	Monument conservation
Urban Conservation	Venice Charter, 1964	Cultural Heritage Sites
Heritage Approach	World Heritage Convention, 1972	Cultural and natural heritage protection
Heritage Approach—Cultural Heritage	Burra Charter, 1981	Cultural significance of places
Heritage Approach—Urban Heritage	Appleton Charter, 1983	Urban heritage conservation
Heritage Approach—Urban Heritage	Washington Charter, 1987	Historic town and urban area conservation
Heritage Approach—Urban Heritage	First Brazilian Seminar, 1987	Urban historic site preservation
Archaeological Heritage	Charter for the Protection and Management of Archaeological Heritage, 1990	Archaeological heritage management
Sustainable Approach	Nara Document on Authenticity, 1994	Authenticity in heritage conservation
Sustainable Approach	Vienna Memorandum, 2005	Historic Urban Landscape
Interpretation and Presentation	ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites, 2008	Cultural Heritage interpretation
Living Heritage Approach	Valletta Principles, 2011	Heritage Conservation
Historic Urban Landscape	Historic Urban Landscape Recommendations, 2011	Landscape-based approach
World Heritage—Sustainable Development	Policy on the integration of a sustainable development perspective, 2015	Sustainable Development Goals

Most importantly, the 2011 Recommendation does not replace existing conservation doctrines; instead, it is established as an additional framework designed to integrate heritage conservation into broader urban development initiatives [40]. This perspective has become particularly significant within the management of urban World Heritage properties, especially considering that approximately one-third of all of them are urban in nature and that a substantial proportion of State of Conservation reports concern challenges related to urban development pressures. Thus, the HUL framework assists researchers, stakeholders, policymakers, planners, and conservation practitioners in reconciling the tensions between heritage conservation and rapid modernization by promoting cultural heritage as a resource for sustainable urban development [41].

It is vital to note that according to UNESCO's dictionary, urban heritage encompasses three principal categories: monumental heritage of outstanding universal value (OUV); non-monumental heritage elements that collectively contribute to historic urban fabric and broader urban components such as built environment, morphology, and topography. Within this understanding, urban conservation as a terminology extends beyond the restoration of individual buildings to include the wider urban context, positioning conservation as an integral dimension of urban planning and management. Similarly, the built environment refers to the human-made interventions designed to support socio-cultural activities, including buildings, transportation systems, public spaces, and infrastructure. Complementing these concepts, the landscape approached by organizations such as the International Union for Conservation of Nature and the Worldwide Fund for Nature offers an extended explanation for guiding conservation and development decisions across entire landscapes through integrated planning, private–public negotiation, and sustainability-oriented management strategies [7].

2.3. Historic Urban Landscape: Six Steps and Their Relevance

The UNESCO HUL Guidebook introduced the "six critical steps" as a means of translating the HUL approach into practical urban management strategies. These steps provide a flexible framework intended to guide researchers, practitioners, policymakers, and stakeholders in implementing context-sensitive and locally adapted conservation actions [27]. By outlining broad strategic directions rather than rigid guidelines, the framework (Table 2) encourages wider applicability across diverse urban and geographical contexts. However, despite this adaptability, the generalized nature of the HUL steps has often limited their direct translation into concrete planning and management interventions. As a result, although the HUL approach has gained considerable prominence within policy and heritage discourse, its practical implementation continues to face challenges due to the limited availability of empirically grounded and contextualized case studies [42].

Table 2. HUL steps and their brief description. Source: Pintossi, Ikiz Kaya & Pereira Roders [42].

HUL Steps	HUL Step Description
Mapping	Mapping natural, cultural, and human resources
Consensus	Reaching consensus on what values and/or which of the attributes are to be protected
Vulnerability	Documenting and assessing the vulnerability of the identified values and attributes witnessing change and development
Integrate	Integration of values, attributes, and their vulnerability assessment in the urban development framework
Prioritize or Prioritization	Prioritizing suitable actions, derived from previous steps for conservation and development
Partnership	Establishing local, regional and international partnerships and management frameworks for monitoring each of the action

The HUL framework is structured around six interconnected steps derived from the principles and guidelines established by UNESCO [7,41]. The initial step focuses on identifying and mapping a wide range of heritage values through knowledge-based and planning tools, followed by the establishment of the mutually agreed-upon socio-cultural attributes. The second step emphasizes community consensus and the development of participatory planning processes to determine which heritage values as well as attributes should be safeguarded. Subsequently, the third step involves assessing the vulnerability of both tangible and intangible cultural and natural values at risk within the urban environment, including, but not limited to, the heritage structures [41].

The fourth step centers on integrating heritage values into broader master plans, urban development and planning frameworks, ensuring that conservation objectives are embedded within local governance and urban planning proposals [14]. The fifth step prioritizes actions that seek to balance heritage conservation with ongoing urbanization challenges, while the final step advocates for the establishment of monitoring mechanisms to evaluate the long-term impacts of interventions and policy implementation [42]. Collectively, these six steps promote an integrated and balanced approach to urban management that ought to support sustainable development while preserving the cultural significance of the historic urban cores of the rapidly developing cities [43,44].

2.4. Contextualizing Historic Urban Landscape for the Leftover Heritage Buildings

A city's socio-cultural fabric is fundamentally shaped through the interaction between the built environment, urban temporality, and human interaction. Historic urban spaces should therefore not be understood as fixed or static entities, as mentioned above; rather, they are constantly negotiated, transformed, and reinterpreted over time, including those spaces often perceived as residual or "leftover" [45]. The identification of such leftover spaces constitutes an important component of urban development processes, where layered and systematic approaches are necessary to understand their latent potential and facilitate their transformation into meaningful integration or interpretation. In this vein, residual spaces within the historic districts embody a dual condition, simultaneously representing opportunities for regeneration and sources of spatial, social, or functional challenges [46,47].

Within the context of the historic urban cores of the cities often victim of post-oil modernization, heritage manifests through multiple forms, meanings, and conditions shaped by both human and non-human agency. From this perspective, particular attention is directed toward spaces or structures rendered obsolete through processes of neglect, collective amnesia, and temporary abandonment [48]. These "leftover" heritage structures—often perceived as contemporary urban ruins, remnants of the past, or even haunted and abandoned buildings for whatever reason—tend to occupy an ambiguous position within the historic fabric [49]. Despite the neglect and abandonment, they tend to possess latent cultural, spatial, and ecological significance that challenge conventional understandings of heritage value. The notion of leftover heritage buildings, therefore, encourages a critical reconsideration of the ethics and aesthetics surrounding urban regeneration and sustainable urban development [50,51]. Consequently, the need to study leftover heritage necessitates an acceptance of ambiguity, shifting meanings, and contested values, recognizing that neglected urban landscapes simultaneously embody loss, transformation, nostalgia, and potential integration [50].

Hence, leftover heritage buildings constitute a recurring phenomenon within the built environment, particularly in sustainable urban development characterized by continuous processes of renewal, transformation, and redevelopment. These residual spaces often emerge as vacant or underutilized structures that may either be positively integrated into the historic fabric or negatively manifested as neglected, sealed, discarded and deteriorated

zones of the historic cores of the cities [52]. Within historic cores, leftover heritage buildings can emerge around, between, behind, or above the conserved heritage, reflecting the fragmented by-products of urban growth and spatial modification.

Previous scholarship has broadly examined these leftover heritage buildings as part of urban regeneration initiatives, particularly in relation to their adaptive reuse [53,54], focusing on issues of conservation principles [55,56], and contextual compatibility [57–60]. However, there remains a need to further investigate the impact of such neglect despite urban regeneration of the historic districts, emphasizing the functional and formal sustainability of historic structures [61–65].

As reflected in the HUL guidebook, the six steps of the HUL approach are fundamentally grounded in two interrelated dimensions. The first concerns the understanding of historic urban environments within a broader socio-spatial and landscape context, emphasizing the concept of integrity and urban governance [66]. In this regard, the city is approached as a cultural landscape, challenging conventional urban conservation paradigms that traditionally prioritize monumental architecture and iconic heritage structures [67]. The second dimension relates to the interpretation of urban spaces through the lens of temporal activity. The HUL approach strategically employs the term "historic" not as a distinction between ancient and contemporary environments, but rather as an inclusive concept that recognizes the continuous evolution of urban landscapes over time [68]. Consequently, heritage conservation extends beyond the protection of individual buildings, structures, or landscapes to include the formulation of integrated strategies and guidelines that can inform future urban interventions and sustainable development processes [69,70]. This second dimension intersects with the need to integrate the leftover heritage structures, if the aim is to have a holistic HUL approach.

3. Materials and Methods

3.1. Study Area

The study selects the historic core of Manama as the primary case study due to its significant cultural, historical, and urban characteristics within the rapidly modernizing Gulf context. Formally nominated to the UNESCO World Heritage Centre Tentative List in 2018 as the "*City of Trade, Multiculturalism and Religious Coexistence*," the nomination initiated by the Bahrain Authority for Culture and Antiquities reflects a strategic effort to recognize and safeguard the urban heritage of old Manama under Criteria (ii) and (iii) of the cultural category [38]. Hence, Manama embodies the OUV as recognized by UNESCO.

The selected study area, encompassing blocks 301, 302, 303, 304, and 305, covers approximately 1.07 km^2 and represents one of Bahrain's oldest urban centers. This selection starts from the Manama Gate and includes Bab Al Bahrain Avenue, Manama Souq, and ends at the Bahrain Hotel, before the main bus stop terminal. The study area does not include the heritage structures of the Ras-Ur-Man, Al Naeem and the Al Salmaniya districts to ensure the continuity of the historic urban fabric of Manama. The area was selected due to its layered urban morphology, mixed-use fabric, multi-religious spaces located in proximity to each other and historic connection to the former coastline and Bab Al Bahrain port area (Figure 1). Characterized by a combination of residential, commercial, religious, and educational functions, the old core of Manama provides a critical setting for examining the interaction between heritage conservation, socio-spatial diversity, and post-oil urban transformation in the Gulf region (Figure 1).

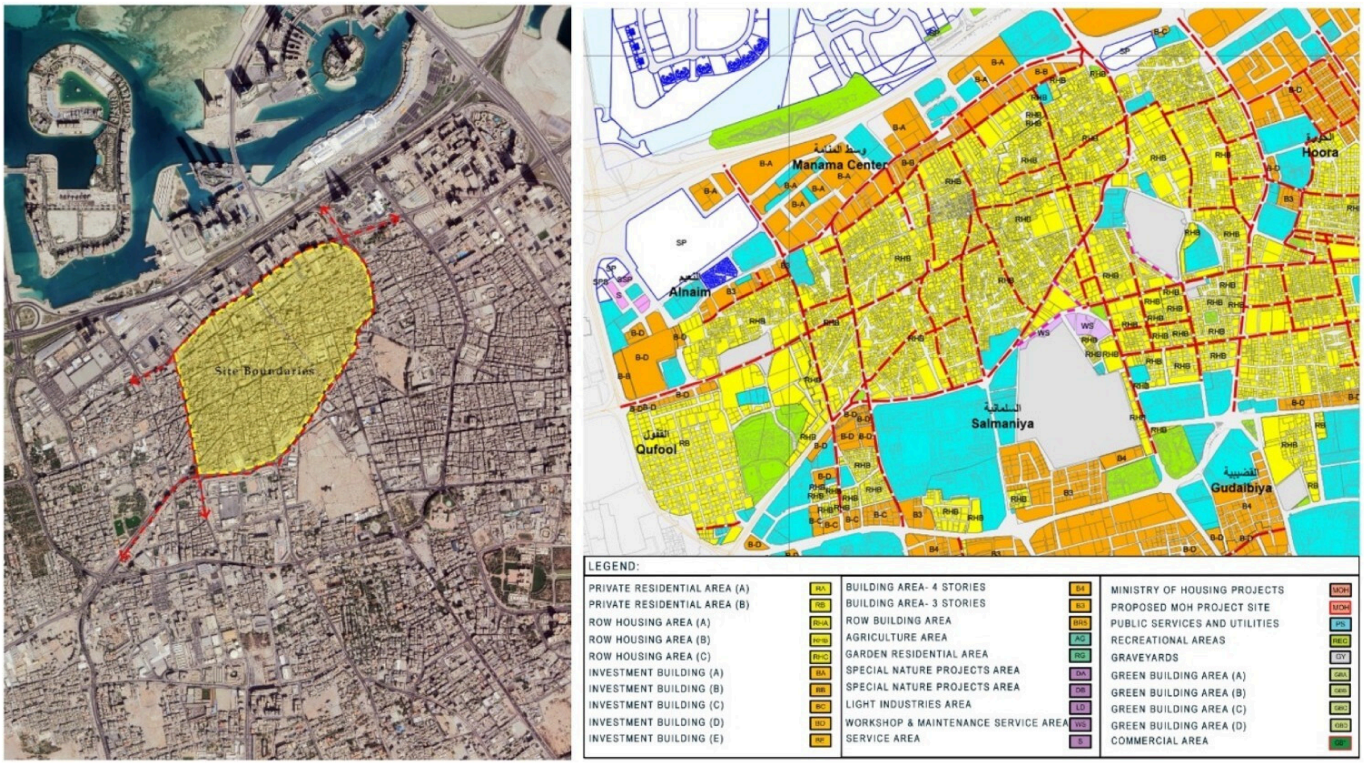


Figure 1. Historic core of Manama, development zones, and land use (Urban Planning & Development Authority).

3.2. Data Collection

Data collection, primarily including document analysis and fieldwork, was guided by descriptive, qualitative, and scoping research aims. The document analysis includes the UNESCO Dossier [38], BACA Conservation plan [71], the Bahrain detailed land use plan [72], and the approved Capital Governate Zoning Plans by the Urban Planning and Development Authority [73], associated with the public–private partnership pillar of the Bahrain Economic Vision 2030 [74]. This phase of the research is supported by a targeted, non-systematic literature review engaging with paradigm-shifting scholarship on the post-oil modernization of Manama and the resulting transformation of its historic urban fabric [34–37]. Rather than constituting a comprehensive quantitative review, the literature synthesis contextualizes the study within broader discussions on heritage conservation, post-oil urban neglect, and development pressures affecting the heritage structures of Manama. These sources were supplemented by governmental and non-governmental reports, such as the Aga Khan nomination for the Rehabilitation of the Manama Post Office [75], UNDP study documents [76], and promotional materials related to heritage-led revitalization initiatives in Manama [77–79].

Data collection further incorporated multiple site observations conducted during field visits between August 2023 and February 2026 (August 2023, January 2024, June 2024, November 2024, February 2025, August 2025, December 2025, January 2026). The initial visits aimed to document the historic urban fabric and conservation challenges of old Manama, revealing a significant number of decayed, underutilized, and abandoned heritage structures that resonated with the notion of "leftover heritage." Subsequent visits focused on understanding the interconnected socio-spatial and socio-cultural dynamics shaping the temporary revitalization of the leftover heritage structures during cultural festivals such as Retro Manama and Hawa Al Manama [77]. Conducted primarily during nighttime events, the fieldwork examined how neglected heritage buildings and surrounding urban spaces

experienced short-term activation and cultural reoccupation, followed by renewed phases of neglect despite their evident adaptive reuse potential.

3.3. Data Analysis

Data analysis adopts a deductive qualitative approach guided by the six-step framework of the UNESCO HUL Recommendation. The HUL framework was selected because it provides a comprehensive methodology for integrating leftover heritage buildings with sustainable urban development while recognizing the interrelationship between tangible heritage, intangible values, socio-cultural evolution and urban transformation.

The analysis draws upon multiple sources, including the academic literature (post-oil modernization and its impacts on the historic districts of the Gulf region), BACA policy documents, UNESCO Dossier, UNDP study, planning and development reports, promotional narratives, and field observations conducted within the historic core of Manama. This triangulation of data sources enabled a comprehensive understanding of the current condition, role, and visibility of leftover heritage buildings within the historic core of Manama.

The analytical process was conducted in three stages. The first stage involved the identification and mapping of leftover heritage buildings through document review and field verification. Buildings that possessed historical, architectural, cultural, or social significance but remained excluded from major conservation initiatives and adaptive reuse projects or remain abandoned and sealed were categorized as leftover heritage buildings. Their socio-spatial relationship with recognized heritage sites, public spaces, cultural routes, and commercial districts was subsequently examined.

The second stage focused on evaluating the current condition and utilization of these structures. Particular attention was given to the temporal activation of heritage buildings during cultural initiatives, such as Retro Manama [80] and Hawa Al Manama [77] and their subsequent return to underutilization during normal periods. This assessment helped reveal the fragmented nature of existing heritage-led interventions and highlighted the gap between temporary cultural activation and long-term urban integration. Observations further examined issues related to physical deterioration, abandonment, revitalization proposals (announced, initiated or ongoing) and street rehabilitation potential.

The third stage applied the six-step HUL framework as an analytical lens to assess the extent to which current heritage management practices in Manama align with the principles of the HUL approach. The six steps examined include: (i) mapping and documentation, (ii) stakeholder consensus, (iii) vulnerability assessment, (iv) integration into urban planning, (v) prioritization, and (vi) partnership. Each step was evaluated using evidence derived from the reviewed documents and field observations.

To systematically assess the level of implementation of each HUL step, an evaluation matrix (Table 3) was developed based on four indicators currently forming an essential part of Manama's transition into a leading cultural hub and a UNESCO designated site as part of the Vision 2030: (i) policy and regulatory support: Urban Planning and Development Authority [81]; (ii) practical implementation, as per the approved zoning plans [73]; (iii) community engagement, in line with the Economic Development Board (EDB) [82]; and (iv) integration within broader urban development processes [83].

Policy and regulatory support examined the presence of strategic frameworks, heritage policies, and planning instruments relevant to each HUL step. Practical implementation evaluated the existence of conservation projects, Approved Master and Zoning plan, and Bahrain Metro Project. Stakeholder engagement assessed the participation of government agencies, local communities, researchers, private actors, and heritage organizations, Guided by the society pillar of Bahrain Vision 2030. Integration within urban development considered the extent to which heritage conservation was incorporated into the National

Plan and Development Strategy 2030. The National Plan and Development Strategy 2030 serves as a significant indicator of Manama's ongoing urban transformation by providing an interactive spatial framework that visualizes planned land-use patterns, development zones, and infrastructural strategies aligned with Bahrain Vision 2030. The platform integrates cartographic and GIS-based layers through ESRI's dynamic online mapping system, enabling the exploration and analysis of urban planning interventions across the city. As a digital planning instrument, it reflects the state's strategic approach toward modernization, spatial restructuring, and future urban growth while simultaneously illustrating how historic and contemporary urban landscapes are being negotiated within broader national development agendas.

Table 3. Indicators used for assessing HUL implementation in Manama. Authors, 2026.

Indicator	Description
Policy and Regulatory Support	Presence of heritage policies, planning regulations, and strategic frameworks by the Urban Planning and Development Authority
Practical Implementation	Evidence of conservation projects, adaptive reuse initiatives, regeneration programs, cultural events, or heritage-led interventions as part of Capital Governate
Stakeholder Engagement	Involvement of government agencies, local communities, private sector actors, researchers, and heritage organizations in line with the Economic Development Board (EDB)
Urban Development Integration	To which degree heritage considerations are incorporated into urban planning, economic development and the National Plan and Development Strategy 2030

Based on the evidence identified across these indicators, each HUL step was classified into one of four implementation levels (Table 4). A step was considered Fulfilled when substantial evidence existed across all indicators and implementation was consistently reflected in both policy and practice. Partially Fulfilled indicated moderate implementation characterized by fragmented or project-specific interventions. Weakly Fulfilled referred to limited implementation with isolated actions and insufficient institutional integration. Not Fulfilled indicated the absence of significant evidence supporting implementation.

Table 4. HUL implementation assessment criteria. Authors, 2026.

Implementation Level	Assessment Criteria
Fulfilled	Strong evidence across all indicators and systematic implementation in policy and practice
Partially Fulfilled	Moderate implementation with evidence in multiple indicators but fragmented application
Weakly Fulfilled	Limited implementation with isolated initiatives and insufficient integration
Not Fulfilled	No significant evidence of implementation identified

The resulting assessment matrix provides a structured evaluation of the status of HUL implementation in Manama and enables the identification of strengths, limitations, and opportunities for improvement (Table 5). More importantly, it allows the study to examine how the sustainable integration of leftover heritage buildings can contribute to strengthening specific stages of the HUL framework, particularly in relation to adaptive reuse, stakeholder participation, urban integration, and public–private collaboration. In doing so, the analysis contributes toward the development of more holistic conservation strategies capable of supporting the sustainable regeneration of historic Manama while strengthening its future World Heritage nomination aspirations.

Table 5. Assessment of HUL implementation for the sustainable integration of leftover heritage buildings in Manama. Authors, 2026.

HUL Step	Policy and Regulatory Support	Practical Implementation	Stakeholder Engagement	Urban Development Integration	Current Status
Mapping and Documentation	△	△	△	×	Partially Fulfilled
Stakeholder Consensus	△	△	✓	△	Partially Fulfilled
Vulnerability Assessment	×	×	×	△	Weakly Fulfilled
Integration into Urban Planning	✓	✓	△	✓	Partially Fulfilled
Prioritization and Action	×	△	×	△	Weakly Fulfilled
Participation	△	✓	✓	△	Partially Fulfilled

Legend: ✓ = Strong evidence; △ = Limited evidence; × = No significant evidence.

4. Results

4.1. Application of the HUL Steps for Leftover Heritage Structures in Manama

As mentioned above, the emergence and relevance of the HUL approach to understanding heritage does not consider it as isolated monuments but rather as a layered urban system, shaped by socio-cultural, socio-economic characteristics (Figure 2). This approach is particularly relevant in the context of Manama, as the city has seen rapid urban change since the oil boom period, fragmenting its historic urban fabric and the emergence of several leftover heritage buildings scattered throughout the old core of the city [36,84].



Figure 2. The historic urban core of Manama in the 1980s.

Within the historic fabric of Manama, numerous architectural and cultural elements still exist that are linked to the cosmopolitan mercantile history of Bahrain, multicultural coexistence of everyday life, vernacular architecture and the intangible cultural traditions [83]. However, many of these buildings are disconnected from today's contemporary urban environment and are at risk of being abandoned, commercialized or redeveloped [36,84,85]. The HUL framework can thus be used to bring such disconnected heritage structures back into the urban fabric and to ensure sustainable urban regeneration (Table 6).

Table 6. Application of the Historic Urban Landscape (HUL) framework steps in Manama, Bahrain. Authors, 2026.

HUL Step	Description of the HUL Step	Application in Manama
Mapping and Documentation	Identification and documentation of tangible and intangible heritage assets, urban morphology, cultural practices, and social values	Mapping of leftover heritage buildings, traditional souqs, religious landmarks, merchant houses, and historic urban corridors within old Manama, initially done in the UNDP study (2008).
Stakeholder Consensus	Establishing a shared understanding of heritage significance through public participation and institutional dialogue	Alignment of heritage values with Bahrain's UNESCO Tentative List aspirations and recognition of Manama's multicultural identity, primarily led by BACA.
Vulnerability Assessment	Identification of physical, social, economic, and environmental threats affecting heritage assets	Assessment of deterioration, commercialization pressures, abandonment, incompatible development, and demographic transformation in the historic core of Manama, currently being initiated by the Urban Planning and Development Authority, BACA, DOCOMOMO Bahrain and the University of Bahrain students under the guidance of the Department of Architecture and Interior Design (However, with restricted collaboration).
Integration into Urban Planning	Incorporating heritage conservation into urban development, infrastructure, tourism, and policy frameworks.	Linking adaptive reuse, heritage tourism, pedestrian revitalization, and Bahrain Vision 2030 within urban regeneration strategies, proposed as part of the Capital Governate Zoning Plans.
Prioritization and Action	Identifying priority heritage assets and intervention areas based on significance and urgency.	Prioritizing leftover heritage buildings near heritage corridors, public spaces, and cultural activity zones such as Bab Al Bahrain and souq districts, temporal activation by the Ministry of Tourism and BACA.
Participation	Strengthening partnerships between public institutions, communities, experts, and private stakeholders.	Coordination between BACA, municipalities, local communities, tourism agencies, researchers, and private investors for heritage-led regeneration, an integral part of the public–private partnership pillar of the Bahrain Vision 2030.

4.1.1. Mapping of Leftover Heritage Buildings in Manama

The first step of the HUL approach is the detailed mapping and documentation of heritage resources. UNESCO highlights the importance of understanding tangible and intangible aspects of the heritage, such as urban morphology, social practices, cultural landscapes, economic activities and community memory [14]. This process is crucial in Manama as numerous heritage buildings continue to be undocumented in the rapidly changing urban core. The mapping initially done by the UNDP in 2008 [76] highlighted the land use plan, which, after almost two decades, has not changed much. The duality of this unchanged land use plan can be observed on one hand in terms of the positive side, that the urban core still embodies the multilayered cultural significance and religious structures (Figure 3). On the contrary, the issue of heritage structures lacking appropriate conservation strategies highlighted then continues to exist despite the passage of a considerable amount of time.

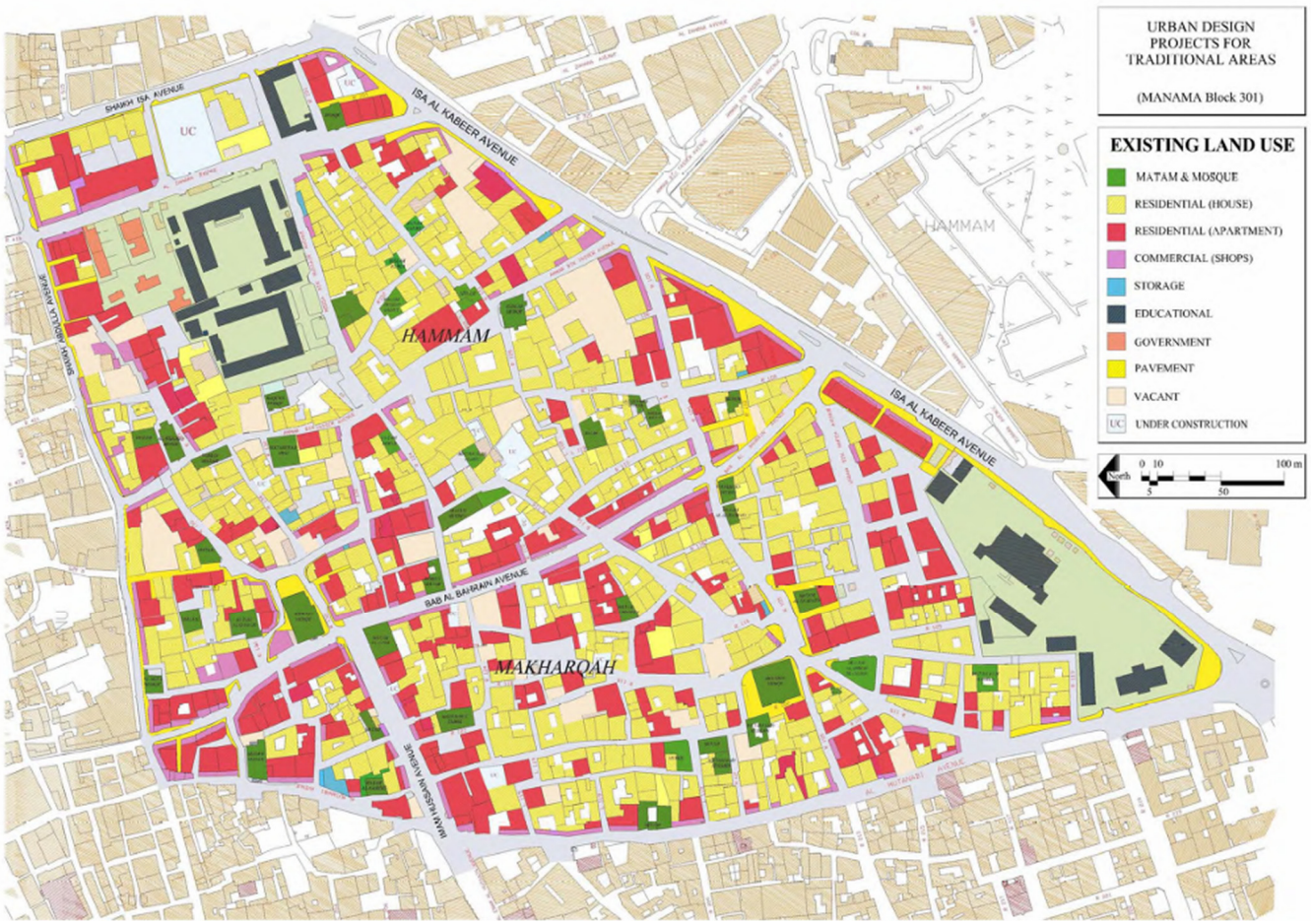


Figure 3. Land use plan of Manama illustrating religious, commercial and residential buildings. Source: UNDP [76].

The socio-cultural significance of the historic core of Manama has, in fact, even strengthened in all these years in terms of its association with the city's mercantile and multicultural history [86]. The recently mapped heritage structures comprise the monumental Bab Al Bahrain, traditional souq, historic merchant houses, religious buildings, and culturally significant landmarks like mosques, churches, synagogues and temples [36], but unfortunately, limited attention is paid to the residential heritage structures (Figure 4). These leftover heritage structures, as argued in the study, illustrate the layered evolution of Manama as a city, and its historical importance as a regional hub of trade, cultural integration and social coexistence. The socio-spatial relationship of these sites must illustrate the interconnections of historic Manama as a continuous urban fabric shaped by trade and commerce, religion, mobility and social interaction, instead of the fragmented one [36,85,87].

Hence, several heritage buildings located between major heritage anchors remain overlooked despite conservation plans. These leftover buildings are often situated in fragmented urban pockets surrounded by commercial encroachments, parking lots, deteriorated alleyways, and incompatible modern structures. Due to the change in demographics and commercial landscape, many former merchant houses and courtyard buildings have gradually lost their functional relevance in neighborhoods like Kanoo, Fareej Al Fadhel and surrounding souq areas (Figure 5).

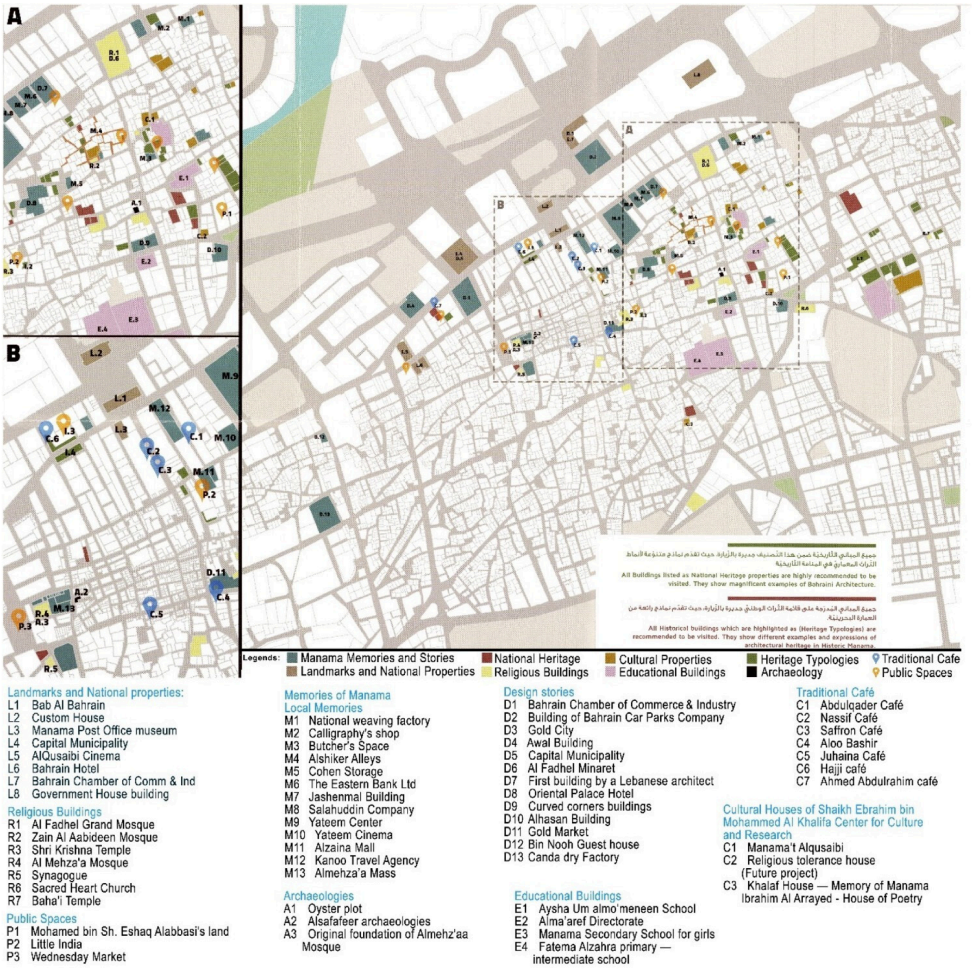


Figure 4. Map of historical and cultural sites in Manama. Source: [36].

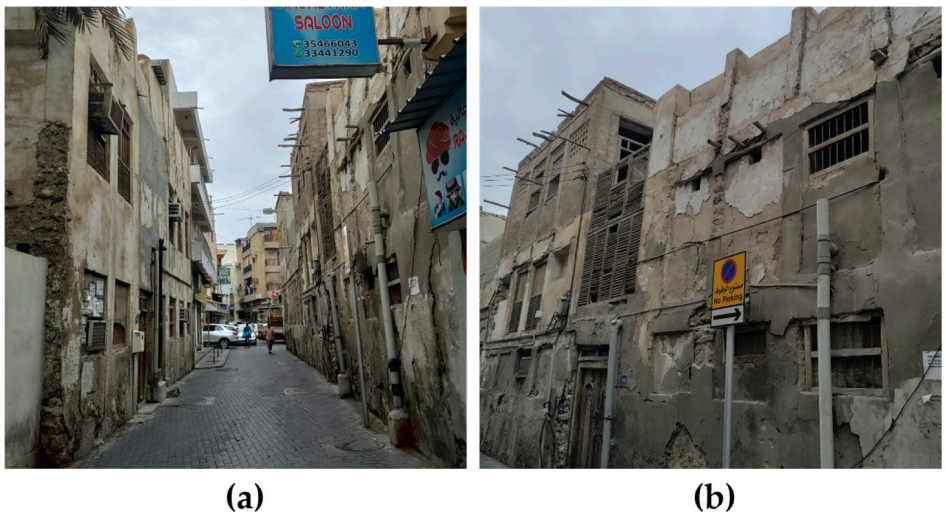


Figure 5. Leftover heritage buildings within the historic core of Manama: (**a**) street view of deteriorating heritage buildings. (**b**) Despite showcasing vernacular characteristics of Manama, these buildings remain isolated from the ongoing conservation phases targeting monumental heritage structures.

The process of mapping should thus not only include officially listed buildings, but also secondary heritage structures which contribute to the continuity of the historic urban core. These encompass vernacular residential units, transitional nodes, urban voids, historic street networks, shaded passageways, and culturally significant everyday structures,

which all contribute to the identity of historic Manama (Figure 6). The HUL approach promotes this broader view, which sees heritage not as individual monuments, but as an interconnected urban ecosystem [70].



(a) **(b)**

Figure 6. These leftover heritage structures have the potential to serve as critical transitional nodes: (**a**) inappropriate interventions add to the deterioration of these buildings; (**b**) improper and unregulated maintenance is another critical issue for these heritage structures.

4.1.2. Consensus of Leftover Heritage Buildings in Manama

The second HUL step is to develop a shared understanding of the heritage values and significance of stakeholders. In the case of Manama, consensus-building is closely linked with Bahrain's aspiration for UNESCO World Heritage recognition of historic Manama. The UNESCO-nominated OUV under criteria (ii) and (iii), as well as the statement of authenticity and integrity, highlights the city's multicultural urban fabric with rich religious diversity, cultural coexistence and mercantile trade [36]. The historic core of Manama provides a unique urban context in which historically, mosques, temples, churches and synagogues were all located within a narrow urban fabric, and which exemplifies openness and cultural interaction over many centuries [85]. The Jewish synagogue *House of Ten Commandments* represents not only a significant place of worship but also an enduring symbol of the Jewish community's historical presence in Bahrain. Established in the 1880s, it remains the oldest continuously operating synagogue within the Gulf region (Figure 7). This multicultural identity constitutes one of the strongest arguments for maintaining and preserving leftover heritage buildings since many of them reflect the everyday urban life associated with this coexistence.

Even with this recognition, the consensus regarding the value of smaller, non-monumental heritage buildings remains limited. Frequently, public and institutional attention is limited to iconic buildings such as the Bab Al Bahrain, and the secondary structures are ignored. To support the HUL framework, however, there is a need for wider engagement, with government agencies, local communities, property owners, Architects, Urban designers, urban planners, historians, conservation specialists and private stakeholders [14]. In this vein, community participation becomes especially important because heritage significance in Manama is strongly associated with collective memory, traditional social networks, and intangible cultural practices. With the development of old Manama from a trading port and merchant city to a highly commercialized urban center, many of the traditional social relationships have changed [85]. Hence, consensus building must include the documentation of oral histories, cultural associations, local narratives and traditional urban practices associated with these leftover heritage structures.



Figure 7. Dating back to the 1880s, the Bahrain Jewish community is the only indigenous Jewish community in the Gulf: (**a**) The synagogue has been preserved and continues to operate to this day. (**b**) Recently, the synagogue underwent an uplift as part of the redevelopment plan of the religious sites in Manama.

4.1.3. Vulnerability of Leftover Heritage Buildings in Manama

The leftover heritage buildings in Manama face multiple layers of vulnerability resulting from rapid urbanization, economic transformation, demographic changes, and weak integration within planning frameworks. Physical deterioration due to abandonment and neglect is among the major vulnerabilities in Manama. There are several examples of traditional buildings once having an active purpose (Figure 8) with structural decay, inappropriate modification, façade alterations and incompatible additions. Due to this, many leftover buildings have lost their original functions and remain underutilized or vacant. Lack of adaptive reuse strategies is another factor that accelerates their deterioration. The second most serious threat to the historic core is rapid pure commercialization. In the past few years, the character of central Manama has evolved into a purely commercial area, leaving a trail of parking lots, commercial streets dominated by haphazard signage, warehouses and low-quality commercial developments.



Figure 8. The leftover heritage buildings in the historic core of Manama: (**a**) The one with the Delmon press signage is located at an important junction of the residential and commercial zones in Manama. (**b**) The road that leads toward Manama souq also has several leftover heritage buildings.

Moving towards Manama Souq, this transformation hurts the visual coherence and cultural continuity of the urban core of Manama, as the souq is undergoing a holistic regeneration phase. Hence, another vulnerability emerges from fragmented planning approaches. In Bahrain, heritage conservation has tended to be on a case-by-case basis rather than on an integrated urban system level. As a result, any leftover heritage buildings outside the designated conservation zone are highly vulnerable to redevelopment pressures (Figure 9).



Figure 9. Neglected heritage structures within the Manama souq: (**a**) Some of these leftover buildings were demolished to have a parking spot for the souq visitors. (**b**) Other leftover heritage structures continue to face neglect and despair despite the high economic activity in the Souq.

Vulnerability is further increased due to climate and environmental conditions. The traditional buildings in Manama were originally designed to embrace passive climatic strategies, including courtyards, wind towers, shaded alleys, and compact urban morphology. However, contemporary interventions often ignore these environmental characteristics, causing thermal discomfort and loss of architectural authenticity. Socio-cultural vulnerability is also very important [88]. Historically, Manama has functioned as a socially inclusive and multicultural urban environment. But demographic changes, immigration, and shifting lifestyles have further undermined the local attachment in historic neighborhoods. As social memory declines, heritage buildings risk becoming disconnected from everyday urban life (Figure 10).

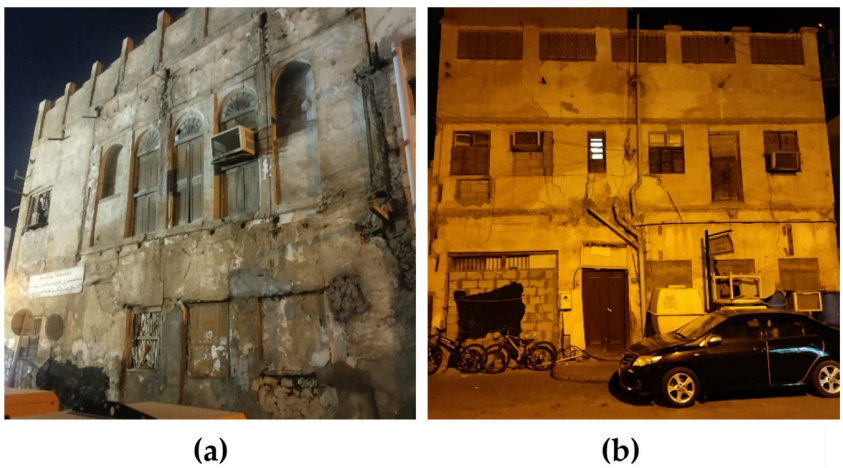


Figure 10. These leftover heritage structures hold distinct architectural characteristics: (**a**) The arched windows and wooden doors continue to survive. (**b**) A number of these leftover heritage structures are being used as temporary accommodation for the expat laborers, further deteriorating the structural stability.

4.1.4. Integration of Leftover Heritage Buildings in Manama

The HUL approach supports an integrated approach to heritage conservation as part of the holistic urban development strategies instead of treating conservation as standing alone. In Manama, sustainable integration requires balancing conservation priorities with economic development, tourist growth, mobility and urban regeneration goals. Bahrain Vision 2030 strongly highlights sustainability, cultural identity, economic diversification, and quality of life. The approach of heritage-led regeneration is closely aligned with these objectives because it can contribute to tourism development, place identity, social cohesion and economic revitalization. However, as noted in the UNDP study [78], the appropriate and sustainable integration of the leftover heritage buildings is not a new issue, but a recurring one (Figure 11).

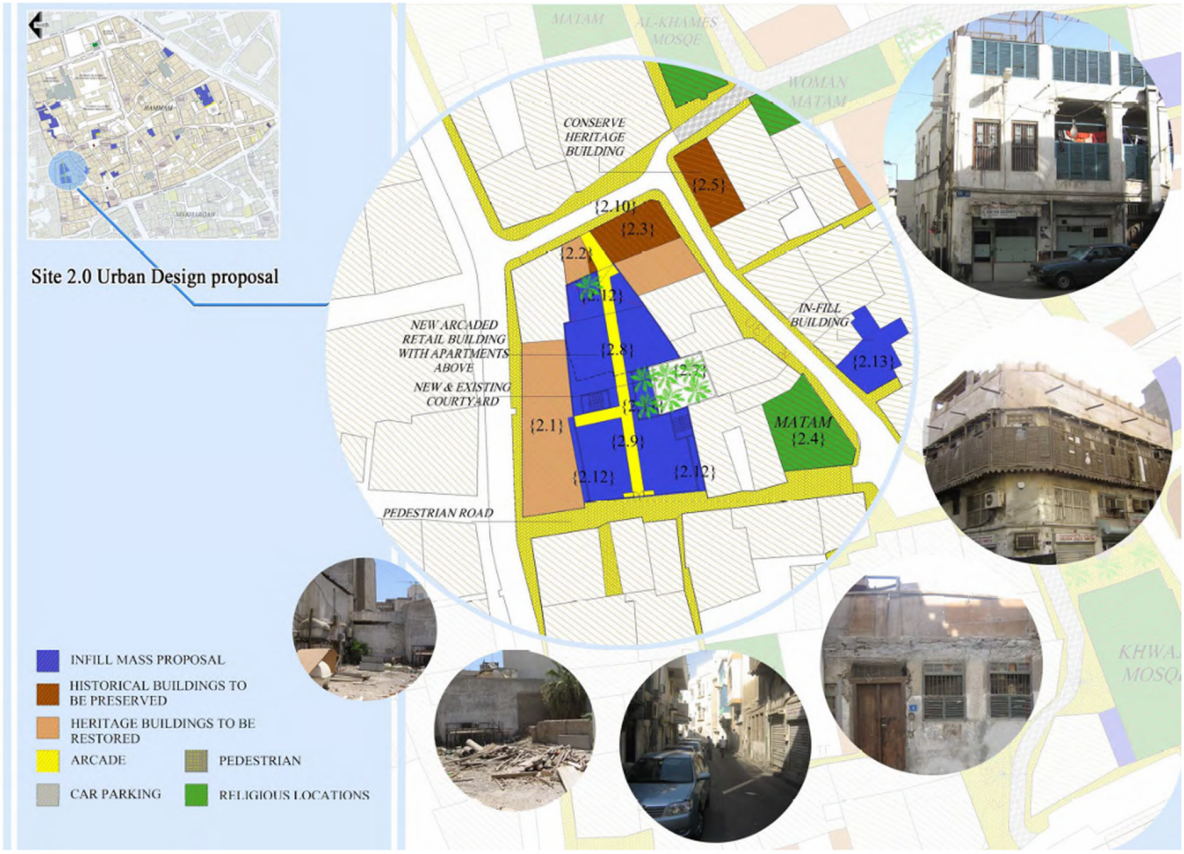


Figure 11. The historic urban core of Manama, mapped by UNDP in 2008, showed similar issues of leftover heritage buildings.

The integration process should therefore focus on adaptive reuse, mixed-use urban regeneration, pedestrian-oriented development, and cultural programming. Leftover heritage buildings can be transformed into cultural centers, creative hubs, cafés, galleries, artisan workshops, boutique accommodations, and community-oriented spaces while maintaining their architectural integrity. Adaptive reuse in this context allows heritage structures to regain functionality without compromising their cultural significance. A prime example requiring adaptive reuse is the first hotel of Bahrain, "The Bahrain Hotel," currently abandoned and neglected despite having a strong tourism potential (Figure 12). The hotel extends beyond its function as a historic structure, representing a significant symbol of Bahrain's early modernization, hospitality, and cultural identity. Its restoration has the potential to catalyze the revitalization of the historic core of Manama, while reinforcing Bahrain's broader aspirations for UNESCO recognition.



Figure 12. The historic Bahrain Hotel, recognized as Bahrain's oldest hotel and a landmark of the nation's early hospitality, has been reintroduced for rehabilitation and adaptive reuse under a proposed 20-year lease agreement following decades of abandonment and inactivity. (**a**) The hotel has been closed and out of service for over a decade. (**b**) Opened in 1951, the Bahrain Hotel represents a significant landmark within the historic core of Manama.

The integration of the leftover heritage buildings should also address the relationship between the surrounding public spaces and heritage buildings. There are some leftover heritage buildings that remain disconnected by the fragmented pedestrian paths, inadequate streetscape, and lack of urban continuity (Figure 13). Improving walkability, shade, public seating, signage, and landscape integration can reconnect these buildings to the broader urban context. The HUL approach further encourages integrating heritage values into planning policies and governance mechanisms. This would involve the inclusion of heritage-sensitive zoning regulations, development control guidelines and an urban design framework that can safeguard monumental and non-monumental heritage assets in Manama.

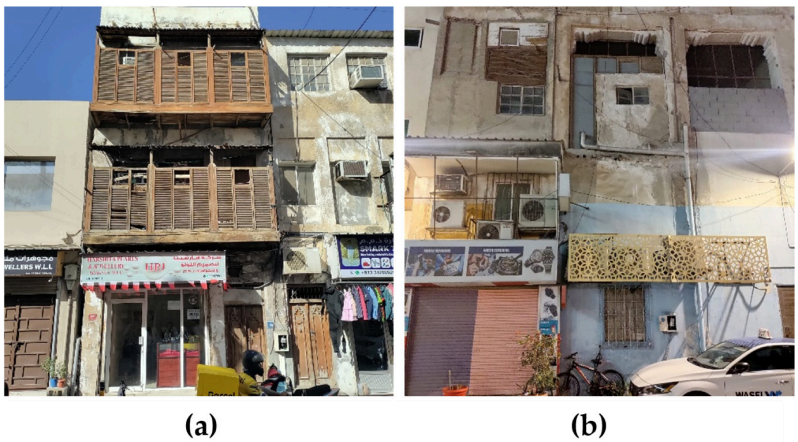


Figure 13. The leftover heritage buildings continue to call for proper conservation measures: (**a**) The ground floor of the buildings serves as retail shops. (**b**) The first floors are either used as storage or are occupied by the staff of the retail stores in most cases.

4.1.5. Prioritization of Leftover Heritage Buildings in Manama

Prioritizing is important as it may not be possible to restore all leftover heritage buildings simultaneously and would require a systematic phase strategy. In this context, the HUL framework contextualized by the BACA and urban planning authorities needs to identify buildings of high cultural, architectural, social and economic value which can

stimulate wider urban regeneration. Recent cultural initiatives in Bahrain, including the Retro Manama in 2024 and Hawa Al Manama in 2025, have already demonstrated how temporary urban events can reactivate the historic core of Manama through cultural programming and public engagement. These initiatives reveal the potential of festivalization as a tool for urban regeneration and heritage activation. However, many leftover heritage buildings remain outside these cultural networks and continue to receive limited attention (Figure 14).



(a) (b)

Figure 14. Hawa Al Manama, part of the Celebrate Bahrain season, activates the historic Manama Souq through cultural events: (**a**) The event brought a massive number of visitors, both residential and tourists, to the historic core. (**b**) Several underutilized modern buildings, such as the Zeinah Plaza, and the surrounding street network were specifically curated for the event.

The temporal activity of the festivals helps us understand that the heritage buildings that have (1) historic or architectural significance, (2) contribute to the continuity of the urban fabric, (3) have the potential to support multicultural narratives, (4) can be redeveloped for adaptive use, (5) are located strategically within the pedestrian network, and (6) can facilitate community engagement and cultural tourism should be given priority. Immediate action must be taken to the leftover buildings within major heritage corridors and tourism routes, as they can enhance urban connectivity and heritage visibility. Similarly, the neglected merchant houses with high adaptive reuse potential and the traditional courtyard buildings should be prioritized for rehabilitation. The prioritization process should also recognize intangible heritage associations. Buildings associated with traditional crafts, social gatherings, religious diversity, and mercantile history possess important cultural value in addition to their architectural expression and form (Figure 15).



(a) (b)

Figure 15. The same spot during and before the event in the historic core of Manama: (**a**) The cars were removed, and the surrounding areas were used as public spots for restaurants during the event.

(**b**) Before the event, the surrounding areas of the leftover heritage structures are being used to solve the issue of a lack of parking.

4.1.6. Partnership Required for the Leftover Heritage Buildings in Manama

The final HUL step emphasizes collaboration and partnerships among different stakeholders. According to UNESCO, collaborative governance is considered key to sustainable heritage management because the conservation of urban heritage cannot be achieved through isolated, single-institutional actions. In Manama, the coordination and effective collaboration between the Bahrain Authority for Culture and Antiquities (BACA), municipal departments, tourism agencies, urban planners, local communities and property owners, universities, and private investors is required. Without the inclusion of cultural heritage within a wider urban development framework, the holistic regeneration of historic Manama is not possible.

Local community participation has a special significance as local communities can sustain intangible heritage, collective memory and cultural continuity. Therefore, the decision-making process for heritage regeneration should involve residents, shop owners, artisans and cultural organizations [86]. Academic institutions can also contribute through documentation, heritage inventories, urban analysis, and policy research. Similarly, private-sector and public sector partnerships through a proper and clearly stated involvement are necessary for financing adaptive reuse projects and promoting heritage-based tourism initiatives (Figure 16).



Figure 16. Projects such as Hawa Al Manama demonstrate how various urban spaces, ranging from the historic souq to the leftover heritage buildings, can be transformed into platforms for cultural expression and collective public engagement: (**a**) leftover heritage building in early 2025; (**b**) the same building during the event serving as an art display space.

Collaborative governance should further include multidisciplinary expertise involving architecture, urban design, conservation, tourism, sociology, economics, and environmental planning. The HUL approach is particularly focused on promoting this interdisciplinary integration, as it is recognized that the formation of historic core is the result of interrelated cultural and urban processes.

4.2. The Sustainable Integration of the Leftover Heritage Buildings in Manama Through the HUL Steps

The analysis reveals that Bahrain has partially implemented the six steps associated with the HUL approach, particularly in relation to cultural tourism, selective heritage conservation, and urban revitalization initiatives. However, the holistic implementation

remains fragmented and largely focused on iconic heritage sites rather than the broader network of leftover heritage buildings distributed across historic Manama (Table 7).

Table 7. Assessment of the Historic Urban Landscape (HUL) framework implementation for the sustainable integration of leftover heritage buildings in Manama. Authors, 2026.

HUL Step	Current Status in Manama	Key Observations	Required Actions
Mapping and Documentation	Partially Fulfilled	Major heritage landmarks documented, but several leftover structures remain unidentified	Comprehensive heritage inventory including non-monumental structures
Stakeholder Consensus	Partially Fulfilled	UNESCO nomination and heritage awareness exist, but limited community engagement	Participatory heritage planning and community consultations
Vulnerability Assessment	Weakly Fulfilled	Physical deterioration and commercialization were identified, but insufficiently monitored	Establish heritage risk assessment and monitoring frameworks
Integration into Urban Planning	Partially Fulfilled	Heritage tourism projects exist but limited integration with planning policies	Heritage-sensitive zoning and adaptive reuse regulations
Prioritization	Weakly Fulfilled	Focus remains on flagship heritage projects	Prioritize secondary heritage structures and urban continuity
Partnerships	Partially Fulfilled	Institutional initiatives exist but fragmented coordination persists	Integrated multi-stakeholder governance framework

The HUL approach demonstrates that it is not possible to secure sustainable conservation solely by monument-based conservation. Instead, heritage must be integrated into the social, economic, cultural and environmental aspects of urban development. Leftover heritage buildings should therefore be acknowledged as active urban assets that can contribute to cultural continuity, urban identity, tourism development, and social sustainability, and that, in the case of Manama, can contribute to the city's new goals of resilience and adaptability (Figure 17).



Figure 17. Temporal activation of the peripheries if not the leftover heritage buildings, during the festival, demonstrates their potential to be gauged via the HUL framework: (**a**) Various entertaining activities were placed along the leftover heritage buildings and the underutilized public areas. (**b**) Screens and laser projections were also used, putting the leftover heritage structures as a backdrop for the festival.

4.3. Sustainable Urban Development of Manama: An Integral Dimension of the Bahrain Vision 2030

The sustainable integration of leftover heritage buildings in Manama extends beyond architectural conservation and represents an important component of Bahrain's broader sustainable development agenda. In parallel, the Kingdom of Bahrain has been progressively integrating its national development goals into the United Nations Sustainable Development Goals (SDGs), specifically SDG 11, which emphasizes sustainable cities, protection of cultural heritage, inclusive urbanization and resilient urban environments. The sustainability agenda in Bahrain point out the significance of cultural heritage in the context of sustainable urban development incorporating aspects of quality of life, urbanization and cultural identity [82].

The HUL approach closely corresponds to the Bahrain Economic Vision 2030, which is built on the interconnectedness of sustainability, competitiveness and fairness. Vision 2030 emphasizes cultural preservation, environmental responsibility, economic diversification, and the creation of livable urban environments able to support future generations. Similarly, the HUL approach also promotes the integration of heritage conservation in the broader urban development process by engaging in participatory planning, adaptive reuse, engaging stakeholders and collaborative governance. Together, these frameworks provide a strategic pathway for balancing heritage conservation with contemporary urban transformation in Manama.

The historic core of Manama is rich in cultural, architectural, commercial and religious heritage assets, that collectively reflect the aspects of Bahrain's multicultural and mercantile history. The preservation and adaptive reuse of leftover heritage structures directly contribute to SDG 11.4, which focuses on strengthening protection of and safeguarding cultural and natural heritage. These interventions not only help to protect the physical structures but also play a vital role in preserving cultural continuity, protecting collective memory, and reinforcing the identity of historic Manama as a trade hub, religious diversity and intercultural exchange.

The HUL framework also aligns with SDG 11.3, inclusive and sustainable urbanization through participatory planning and management. The approach facilitates a partnership between government agencies, local communities, property owners, researchers, conservation architects and private stakeholders in determining the future conservation initiatives of Manama. The partnership step is especially crucial in Manama, where the decades of rapid urbanization and commercialization have impacted and transformed parts of the historic urban fabric. By incorporating local knowledge, cultural memory, and community aspirations into planning processes, as witnessed during the festival, sustainable integration of leftover heritage buildings can strengthen social cohesion and promote more inclusive forms of urban development.

In addition, revitalization of public space around heritage buildings supports SDG 11.7, which supports universal access to safe, inclusive, accessible and culturally vibrant public spaces. Heritage-led regeneration can help to restore continuity among fragmented urban fabric by introducing a conserved and continued heritage trail. The implementation of cultural programs and urban events such as heritage festivals, public exhibitions, and community-based cultural programs have already shown the potential to introduce such a trail, which will enhance public engagement with the leftover heritage buildings.

From an economic perspective, such HUL-driven sustainable urban development closely aligns with Bahrain vision 2030, with its focus on place-based economic development, cultural industries, and tourism diversification. When heritage buildings are adaptively reused for cultural, commercial, educational and/or tourism purposes, they can create new economic opportunities and preserve the authenticity of the historic en-

vironment. Heritage tourism in this context, as elaborated by Shubbar et al. [36], can act as a catalyst for urban regeneration of the historic core of Manama. Such regeneration in turn highlights the potentials of leftover heritage buildings to play an important role in economic competitiveness and sustainable tourism development. It is therefore possible to convert and transform leftover heritage buildings from underutilized assets into active contributors to the economy through adaptive reuse projects, heritage trails, cultural events and creative industries.

Hence, aligning with the HUL approach, Bahrain Vision 2030 and Sustainable Development Goals demonstrate how the conservation of leftover heritage buildings should not be considered as a stand-alone initiative awaiting the top–bottom approved conservation plans, but rather as an integrated dimension of sustainable urban development (Table 8). Through adaptive reuse, participatory governance, heritage tourism, public-space enhancement, and integrated planning, the leftover heritage buildings of Manama can contribute simultaneously to the continuity of the socio-cultural aspects dating back to pre-oil discovery and enhance socio-economic vitality. In this context, the framework below derived from the analysis above, graphically illustrate how sustainable integration of leftover heritage buildings examined through the lens of the HUL approach represents both a conservation strategy and a practical pathway toward achieving Bahrain's long-term development vision (Figure 18).

Table 8. Alignment of the Historic Urban Landscape (HUL) approach in Manama with Bahrain Vision 2030 and Sustainable Development Goal 11. Authors, 2026.

HUL Framework Step	Req. Application in Manama	Bahrain Vision 2030 Pillar	Relevant SDG Target	Contribution to Sustainable Urban Development
Mapping and Documentation	Identification and documentation of leftover heritage buildings, traditional souqs, merchant houses, religious landmarks, and historic urban corridors	Sustainability	SDG 11.4—Protect and safeguard cultural heritage	Supports evidence-based conservation planning and long-term heritage management
Stakeholder Consensus	Recognition of multicultural heritage values and community participation in heritage planning	Fairness	SDG 11.3—Inclusive and sustainable urbanization	Strengthens social inclusion and participatory decision-making
Vulnerability Assessment	Identification of physical deterioration, abandonment, commercialization pressures, and redevelopment threats	Sustainability	SDG 11.4—Cultural heritage protection	Supports preventive conservation and risk management
Integration into Urban Planning	Incorporation of adaptive reuse, heritage tourism, pedestrian networks, and public-space improvements into urban policies	Sustainability and Competitiveness	SDG 11.3 and SDG 11.7	Promotes balanced urban growth and improves urban livability aligning with the UNESCO inscription
Prioritization	Selection of high-value heritage buildings for regeneration and cultural activation	Competitiveness	SDG 11.4	Supports heritage-led economic development and tourism diversification by identifying which of the leftover heritage buildings require immediate action
Collaboration and Partnerships	Partnerships among BACA, municipalities, local communities, researchers, tourism agencies, and private stakeholders	Fairness and Sustainability	SDG 11.3 and SDG 17.17	Encourages integrated governance and collaborative heritage management for future conservation initiatives

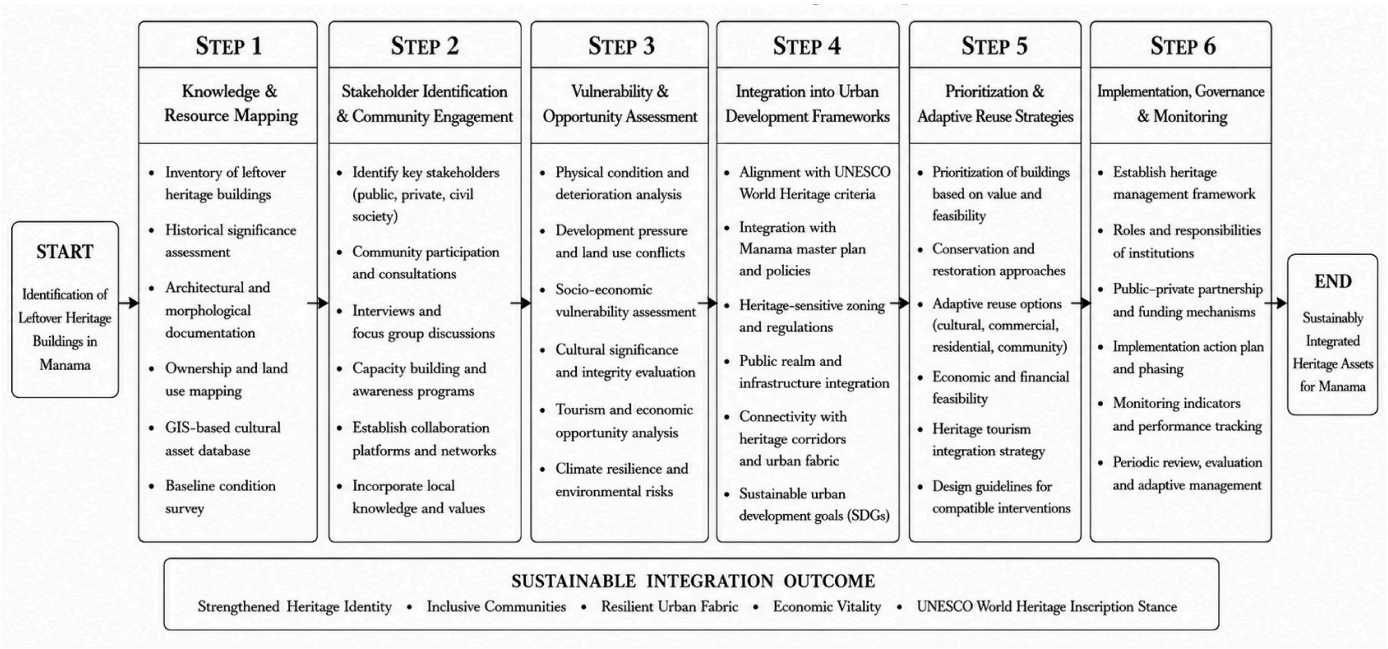


Figure 18. Framework for the sustainable integration of leftover heritage buildings in Manama through the Historic Urban Landscape (HUL) Approach.

5. Discussion

The application of the UNESCO's HUL approach within the historic core of Manama highlights the necessity of integrating leftover heritage buildings into broader urban regeneration and cultural heritage management strategies. The assessment also identifies that the implementation of the HUL framework unevenly distributed across the six recommended steps. Although there has been an increased focus on mapping and documentation as well as an integrated urban planning of the leftover heritage buildings through heritage-led regeneration and conservation projects (including cultural festivals), there has been relatively stagnant progress in the areas of consensus building and partnership amongst stakeholders. Despite the acknowledgement of persistent challenges such as inadequate maintenance, material degradation due to climatic and environmental issues, incompatible interventions, and insufficient public amenities, the findings reveal that vulnerability assessment and prioritization remain among the weakest integrated HUL steps for conservation of the historic core of Manama. This indicates that conservation activities continue to be somewhat project driven and not fully integrated in a comprehensive landscape-scale heritage management approach in Manama.

The findings further indicate that the sustainable integration of leftover heritage structures requires a redevelopment strategy centered on adaptive reuse, temporal activation, and the preservation of the historic district's architectural patina and socio-cultural significance, as illustrated in the proposed framework. Rather than prioritizing demolition and reconstruction, as witnessed in the peripheries of the Manama Souq, the framework encourages the rehabilitation of existing buildings to support local businesses, residential continuity, and culturally embedded public life. Equally important is the establishment of participatory planning mechanisms that actively involve residents, shop owners, and community groups in decision-making processes. Such inclusion strengthens the socio-economic vitality of conservation initiatives while ensuring that sustainable development reflects local cultural values and lived experiences.

The findings also reveal that the application of the HUL approach for the sustainable integration of leftover heritage buildings is not only important in terms of their individ-

ual architectural and historic significance but also in terms of their contribution to the authenticity and integrity of historic Manama, which forms the basis of the OUV, under Criteria (ii) and (iii) of the cultural category. They may not be as iconic as many of the major landmarks, but collectively they represent the everyday urban environment in which commercial exchange, cultural interaction, and social life were carried out. Their further deterioration could consequently threaten the spatial continuity and cultural coherence of the historic core of Manama. Thus, considering this remains an essential element for the sustainable integration of these structures, resonating with the OUV of historic Manama and strengthening its future stance of UNESCO World Heritage inscription.

Moreover, the sustainable integration of the leftover heritage buildings shows that there is a strong alignment with the Bahrain Vision 2030 and Sustainable Development Goal 11. These leftover heritage buildings can serve multiple functions in the areas of, economic diversification and heritage tourism through adaptive reuse, community participation, heritage-sensitive planning, and public–private partnerships. The results directly contribute to the Vision 2030 pillars of sustainability, competitiveness, and fairness, as well as to international goals in the areas of cultural heritage protection, inclusive urbanization and accessible public spaces.

Similar to other Gulf historic districts pursuing World Heritage recognition, the HUL implementation, coupled with the UNESCO guidelines, holds the potential for repositioning neglected heritage assets as active components of national development agendas and socio-economic revitalization. However, the study emphasizes that the future sustainability of old Manama depends not only on the sustainable integration of the leftover heritage buildings but also on avoiding large-scale tabula rasa redevelopment approaches in favor of incremental, adaptive, and context-sensitive interventions capable of preserving the district's authenticity, socio-cultural diversity, and commercial urban character.

More broadly, the study contributes to ongoing debates on a paradigm shift in the conservation of historic cores, as highlighted by Jimura [89], Rahbarianyazd [90], Nia & Suleiman [91], Eyyamoğlu & Akçay [92], Ukabi & Akçay [93], Madandola and Boussaa [56], Günçe & Mısırlısoy [94], Youssef & Esaam [95], Şahin Körmeçli [96]. By positioning leftover heritage buildings as an important yet frequently overlooked component of heritage management, the research extends existing scholarship beyond landmark conservation, toward a more comprehensive understanding of heritage as a living urban landscape Çakan et al. [97] and Aslani and Kapusta [98]. In the Gulf region, the study advances emerging discussions on heritage-led urban development, emphasized by Khalid Sabri & Galal Ahmed [99], Hanif & Riza [100], Alnaim & Alnaim [101,102], Mazzeto [103], Moscatelli [104,105], Sampieri and Mazzetto [9], Alkhalifa & Hanif [106] and Shah et al. [107]. By linking the sustainable integration of leftover heritage buildings with the HUL framework, the study enriches current discussions on heritage-driven development and sustainable urban transformation within the Kingdom of Bahrain and the wider Gulf region.

6. Conclusions

The present study examined the feasibility of using the Historic Urban Landscape (HUL) approach for the sustainable integration of leftover historic buildings within the historic core of Manama. The results indicate that although much has been achieved in terms of conserving landmark heritage assets and the revitalization of cultural areas, a significant number of smaller-scale heritage structures are underutilized, physically deteriorated and are excluded from the conservation initiatives. These structures have left a significant impact on Manama's urban fabric, cultural identity, and multicultural heritage, and yet they remain largely underutilized and overlooked.

The application of the HUL framework reveals that Manama has partially completed four HUL steps, including mapping and documentation, consensus among stakeholders' integration into urban planning, and Partnership. However, there are still issues to address vulnerability assessment and prioritization. By proposing the framework, the study suggests that the sustainable integration of the leftover heritage buildings through adaptive reuse, community involvement, and heritage-sensitive planning can facilitate the implementation of the HUL approach and can improve the UNESCO dossier of the historic core of Manama, formally nominated to the UNESCO World Heritage Centre Tentative List in 2018 as the "*City of Trade, Multiculturalism and Religious Coexistence*".

Additionally, the study emphasizes the high affinity between Bahrain Vision 2030, SDG 11, specifically 11.3, 11.4, 11.7 and the sustainable integration of the leftover heritage buildings through the HUL approach. The opportunities of reintegrating neglected heritage assets into the urban landscape can not only help to promote cultural continuity and economic diversification, but also the development of heritage tourism and sustainable urban growth. The study concludes that in order to have a holistic conservation of the historic core of Manama in the future it is not only important to protect iconic buildings but also to take into account and incorporate the everyday heritage buildings in their various forms that collectively contribute to the city's socio-economic vitality, reinforcing Manama's diverse socio-cultural fabric within the Gulf region.

This study acknowledges two limitations. The first one is its reliance on secondary data sources, including document analysis, the literature synthesis, and policy materials available via the governmental sites, for the formulation of indicators that led to the assessment of HUL Implementation for the Sustainable Integration of Leftover Heritage Buildings in Manama. The second one is that the research does not incorporate surveys, systematic interviews, or longitudinal socio-economic datasets; therefore, the causal relationships identified should be interpreted as informed and plausible propositions rather than definitive conclusions. Future research can investigate the community's preferred opinion for the sustainable integration of the leftover heritage buildings. Future research with the help of BACA can also investigate the underlying issues of the buildings classified as leftover such as property/landowner disputes. Future research can also expand the findings by dissecting the impacts of each of the HUL steps in terms of policy formulation, and funding mechanisms, while also incorporating community-based data to critically assess issues of temporal activation of these buildings. Expanding the comparative scope to include additional historic districts across the Gulf region would also enable a more contextualized HUL framework for the Gulf region.

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Abbreviations

The following abbreviations are used in this manuscript:

HUL	Historic Urban Landscape
UNESCO	United Nations Educational, Scientific and Cultural Organization
ICOMOS	International Council on Monuments and Sites
DOCOMOMO	Documentation And Conservation of Buildings, Sites, And Neighborhoods of The Modern Movement
BACA	Bahrain Authority of Culture and Antiquities
WHS	World Heritage Site
OUV	Outstanding Universal Value

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