

Integrating Traditional Urban Fabric into Contemporary Urban Development: A Thematic Review

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ABSTRACT

Traditional urban fabric (TUF) embodies the cultural, spatial, and social characteristics of historic cities, playing a fundamental role in preserving urban identity, continuity, and sustainable development. Despite growing scholarly interest, research on the integration of TUF within contemporary urban development remains fragmented, with limited synthesis of prevailing trends and approaches. This study synthesises peer-reviewed literature published between 2019 and 2024 to examine emerging research patterns, planning strategies, and thematic developments concerning the integration of TUF into contemporary urban planning and development. A thematic review of 25 journal articles was undertaken using qualitative thematic analysis to identify recurring patterns across diverse geographical contexts. The findings reveal four interrelated themes: (1) heritage management, governance, and policy; (2) urban morphology, spatial structure, and revitalisation; (3) community participation, identity, and social inclusion; and (4) resilience, sustainability, and environmental integration. Collectively, these themes demonstrate that effective TUF integration extends beyond heritage conservation by incorporating governance, community engagement, spatial planning, and environmental sustainability into a holistic planning approach. This review proposes a structured thematic framework that strengthens the conceptual understanding of TUF integration while providing practical insights for policymakers, urban planners, and heritage practitioners. Future research should prioritise comparative cross-regional studies, integrate digital and participatory planning tools, and examine the socio-economic outcomes of heritage-led urban development to support culturally responsive and sustainable cities.

Keywords: Traditional Urban Fabric, Historic Urban Landscape, Urban Morphology, Heritage Conservation, Urban Revitalisation

INTRODUCTION

The conservation and integration of historic urban environments have become increasingly important within contemporary urban planning as cities continue to balance rapid urbanisation with the need to preserve cultural identity, historical continuity, and place character. Within this context, Traditional Urban Fabric (TUF) has emerged as a fundamental concept for understanding how historic urban environments can accommodate contemporary development while retaining their cultural significance. TUF refers to the spatial, cultural, and social structure of historic urban areas shaped through long-term processes of settlement, adaptation, and everyday urban life (Carmona, 2021; Rapoport, 1990). Rather than representing only the physical form of historic settlements, TUF embodies the interrelationship between built form, cultural identity, collective memory, and socio-spatial practices that continue to evolve over time (Norberg-Schulz, 1979; Relph, 1976).

Recent studies have highlighted diverse strategies for integrating TUF into modern cities, emphasising the need to balance heritage conservation with evolving urban demands. One significant aspect of this integration is tourism development. Ginanjar et al. (2021) discuss the importance of enhancing visitor services in Semarang's Old Town to overcome barriers in the tourism industry. Similarly, Gürbey (2023) emphasises the role of landscape character analysis in supporting urban tourism. Collectively, these studies suggest that integrating tourism development with heritage preservation can strengthen local economies while safeguarding historical and cultural values. Moreover, Gao et al. (2021) argue that historic urban landscapes serve as important carriers of urban resilience, demonstrating how interactions among natural, economic, and cultural systems contribute to sustainable urban environments. These findings highlight the importance of incorporating ecological resilience alongside heritage conservation in contemporary urban planning. Taken together, these developments reflect a broader transition towards more integrated and people-centred urban development approaches that combine cultural activities, community participation, governance, and urban revitalisation (Azili et al., 2026).

Walkability has also emerged as a critical consideration in the sustainable development of historic urban areas. Kato (2020) highlights the significance of walkable environments in enhancing urban sustainability, indicating that walkability can reduce reliance on automobiles, thereby promoting healthier lifestyles and reducing traffic congestion. Likewise, Khairunnisa et al. (2022) emphasise the importance of pedestrian-friendly pathways in Jakarta's Kota Tua, demonstrating how walkability can preserve cultural heritage while accommodating contemporary urban activities. Beyond mobility, recent studies have increasingly focused on the relationship between urbanisation and cultural identity. Said & Aisyah Hamzah (2020) explore how new developments within traditional areas may disrupt architectural heritage, arguing that urban design should prioritise cultural identity to preserve the distinctive character of historic neighbourhoods. Similarly, Kurniawati et al. (2020) advocate the revitalisation of Semarang's Old Town as a socio-cultural and economic hub, highlighting the importance of balancing heritage conservation with economic revitalisation.

Collectively, these studies demonstrate that integrating TUF into contemporary urban development requires a multidimensional approach encompassing tourism, ecological resilience, walkability, and cultural identity. Despite the growing body of literature, research on integrating TUF into contemporary urban development remains fragmented, with limited synthesis of emerging trends and planning approaches across different urban contexts. Consequently, this study synthesises research published between 2019 and 2024 to identify emerging research patterns, dominant themes, and strategic approaches to integrating TUF within contemporary urban development. Accordingly, this review seeks to answer the following research question:

RQ: What are the recent trends in integrating TUF within contemporary urban development and planning literature from 2019 to 2024?

MATERIALS AND METHODS

This study adopted the Thematic Review FlowZ (TreZ) methodology to systematically synthesise literature on TUF. The TreZ methodology, developed by Zairul (2017, 2020, 2021, 2022) & Zairul et al. (2023), provides a structured approach for conducting thematic literature reviews using qualitative thematic analysis. The methodology is copyright-protected under registration number CRLY2023W02032 (Zairul, 2023). As illustrated in Figure 1, the review process follows the principles of thematic analysis, whereby recurring patterns and themes are identified through systematic examination of the selected literature (Clarke & Braun, 2013).

This study employed a rigorous and systematic approach to examine research on TUF within contemporary urban development. The review process began with the formulation of the research question, which established the scope and direction of the study. Relevant articles were subsequently identified through systematic database searches using predefined search strings (Table 1). The retrieved records were then screened and filtered based on predetermined inclusion and exclusion criteria (Figure 2), followed by data verification to ensure consistency and reliability. Finally, qualitative thematic analysis was undertaken to identify, synthesise, and interpret recurring themes and emerging research patterns related to TUF. The review was limited to peer-reviewed journal articles published between 2019 and 2024 that explicitly addressed TUF, Historic Urban Landscape, or Old Town areas within the context of urban planning and urban development.

Thematic Review FlowZ (2024)

TreZ

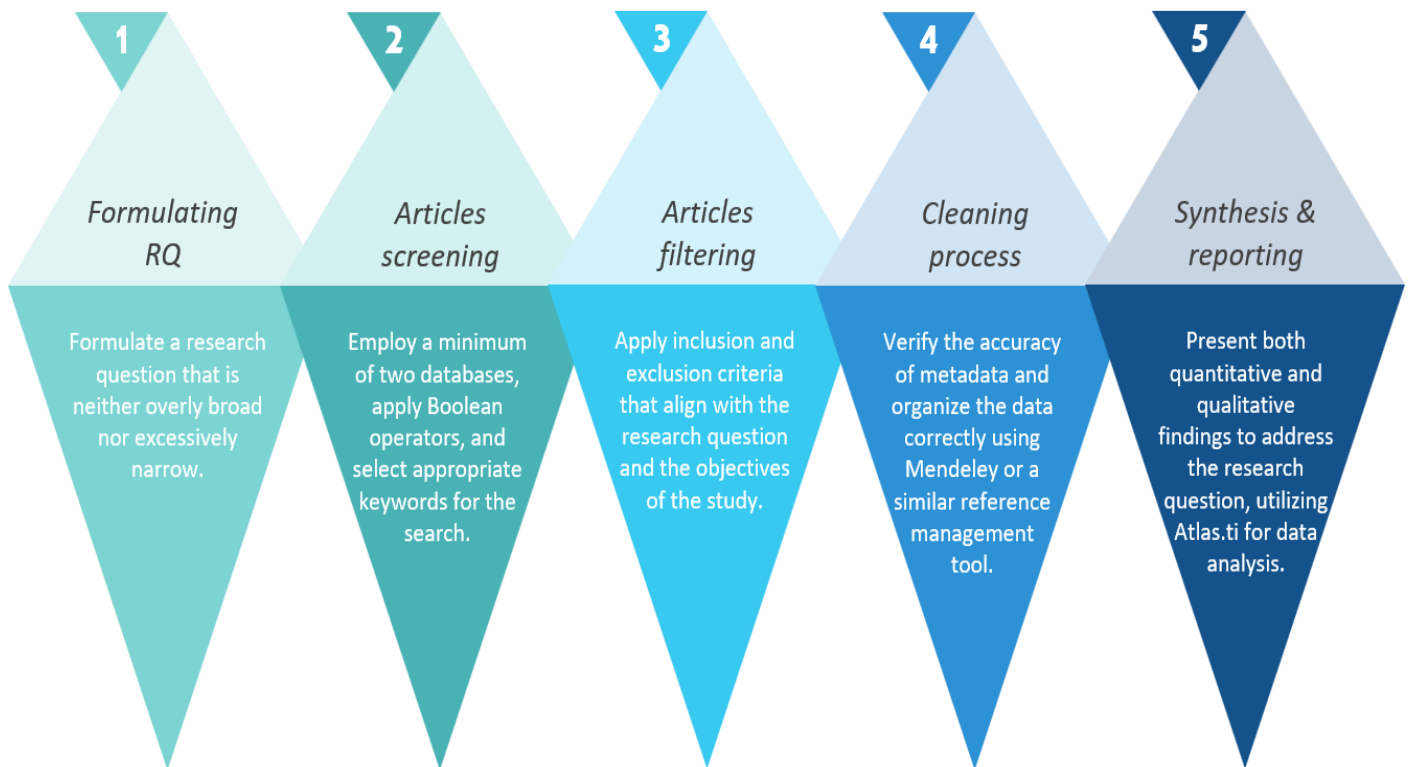


Figure 1. Thematic Review FlowZ (TreZ)

The literature search was conducted using two major academic databases, namely Scopus and Web of Science (WoS), due to their extensive coverage of peer-reviewed journals in urban planning, heritage studies, and the built environment. The search strategy was systematically developed using a combination of keywords and Boolean operators to ensure comprehensive retrieval of studies relevant to TUF within contemporary urban development. For the Scopus database, the search string incorporated the key concepts "traditional urban fabric", "historic urban landscape", and "old town area" to represent the heritage context. These heritage-related terms were combined with planning-related keywords, including "urban planning" and "urban development", to capture studies addressing conservation, planning, and urban transformation. Similar search parameters were applied in the WoS database to maintain consistency across both databases. The search was limited to English-language peer-reviewed journal articles published between 2019 and 2024. Using the predefined search strings presented in Table 1, 28 articles were retrieved from Scopus and 37 articles from Web of Science. The variation in retrieved records reflects differences in database indexing coverage and search algorithms, providing a comprehensive dataset for subsequent thematic analysis.

Table 1. Search strings from Scopus and Web of Science (WoS)

SCOPUS	TITLE-ABS-KEY ("traditional urban fabric" OR "historic urban landscape" OR "old town area" AND "urban planning" OR "urban development") AND PUBYEAR > 2019 AND PUBYEAR < 2025 AND (LIMIT-TO (SUBJAREA , "SOCI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (OA , "all"))	28 results
WoS	Refine results for ("traditional urban fabric" OR "historic urban landscape" OR "old town area") AND ("urban planning" OR "urban development") (All Fields) and 2019 or 2024 or 2023 or 2022 or 2021 or 2020 (Publication Years) and Article (Document Types) and English (Languages) and All Open Access (Open Access)	37 results

Following the literature search, the identified studies underwent a systematic screening and selection process, as illustrated in Figure 2. A total of 65 records were initially retrieved from the Scopus ($n = 28$) and Web of Science (WoS) ($n = 37$) databases. Following the removal of nine duplicate records, the remaining studies were assessed against the predefined inclusion and exclusion criteria developed to address the research objectives. During this screening stage, 31 studies were excluded because they did not meet the eligibility criteria. Consequently, 25 peer-reviewed journal articles were retained for the final thematic analysis. The final dataset of 25 peer-reviewed journal articles formed the basis for the thematic analysis. This systematic selection process enhanced the transparency, reliability, and methodological rigour of the review while providing a comprehensive synthesis of current research trends and identifying future research directions relating to TUF within contemporary urban development.

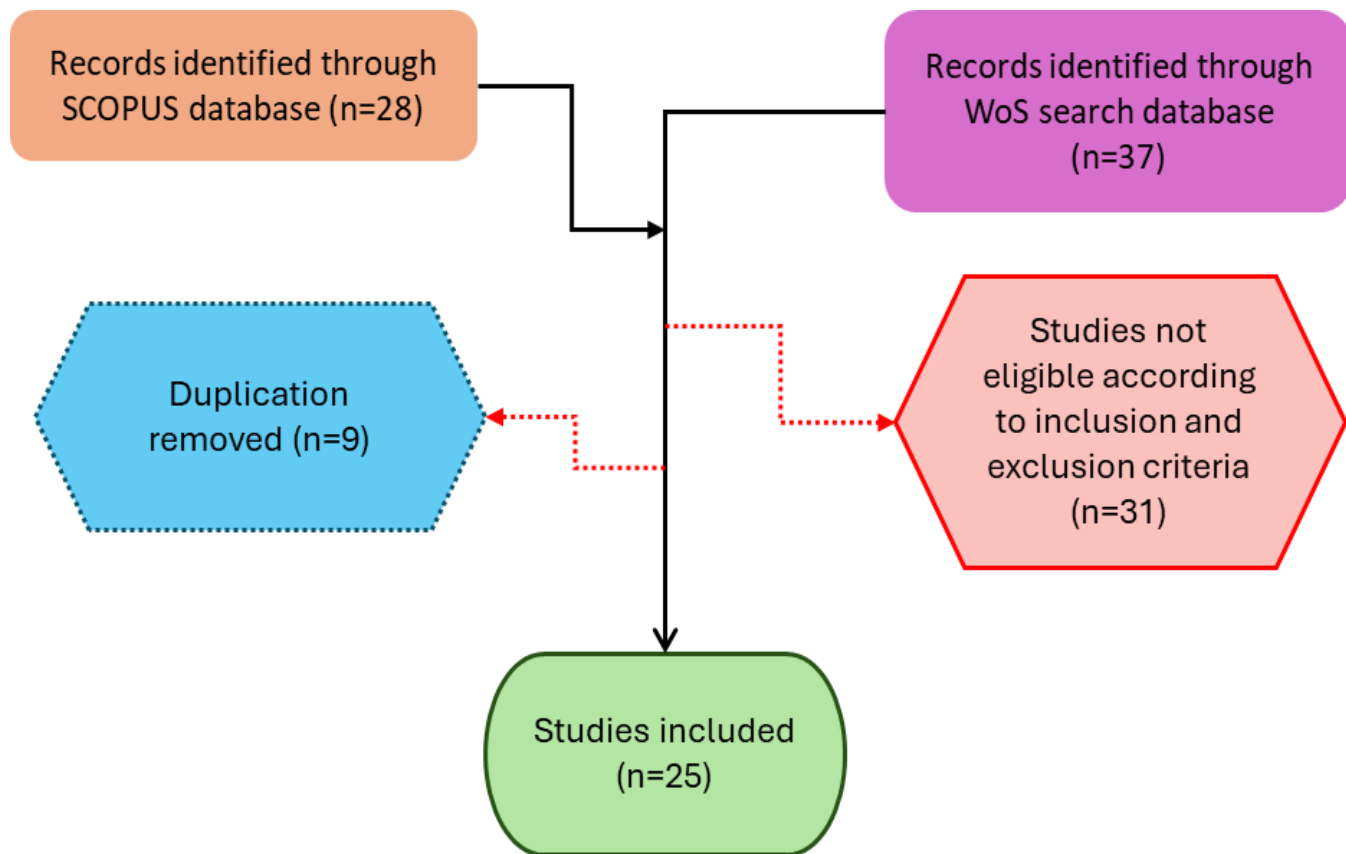


Figure 2. Inclusion and exclusion process using the TreZ methodology

Following the screening process, the 25 selected articles were imported into ATLAS.ti for qualitative thematic analysis. An iterative thematic analysis procedure was employed, beginning with open coding to identify recurring concepts related to Traditional Urban Fabric (TUF), heritage conservation, urban development, governance, and community participation. Related codes were subsequently grouped into broader conceptual categories through constant comparison, allowing recurring patterns to emerge through iterative comparison of the reviewed studies. These categories were then refined into four overarching themes that addressed the research question. Throughout the analysis, codes and emerging themes were reviewed repeatedly to ensure conceptual consistency and minimise overlap between categories. The resulting thematic structure was further reviewed and discussed among the authors to enhance conceptual clarity, minimise thematic redundancy, and confirm that the identified themes accurately represented the overall patterns observed across the reviewed studies.

RESULTS AND DISCUSSION

The thematic review identified four interrelated themes that collectively represent the dominant research directions of TUF within contemporary urban development between 2019 and 2024 (Figure 3). These themes were generated through an iterative coding and thematic synthesis of 25 peer-reviewed journal articles, reflecting

the multidimensional nature of TUF research across planning, heritage conservation, and sustainable urban development. The identified themes comprise (1) Heritage Management, Governance and Policy (n = 6); (2) Urban Morphology, Spatial Structure and Revitalisation (n = 7); (3) Community Participation, Identity and Social Inclusion (n = 4); and (4) Resilience, Sustainability and Environmental Integration (n = 8). Together, these themes illustrate that contemporary TUF research extends beyond the conservation of historic urban environments by increasingly incorporating governance, spatial planning, community engagement, and environmental sustainability as interconnected dimensions of urban development.

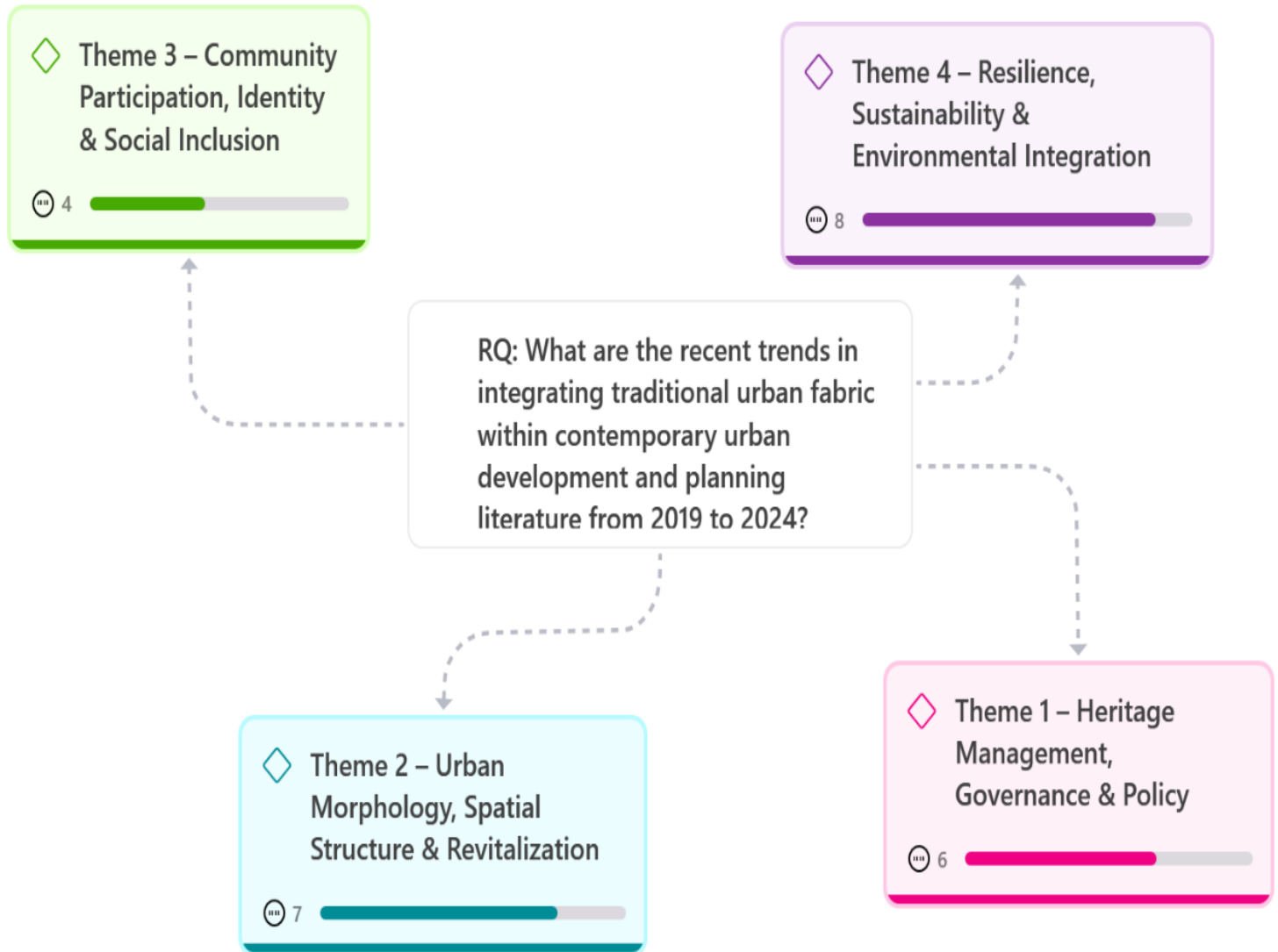


Figure 3. Thematic Framework of TUF Trends in Urban Development (2019–2024)

The geographical distribution of the reviewed studies reveals a notable imbalance in current TUF scholarship, with research concentrated in only a few countries despite the global significance of traditional urban environments. As shown in Figure 4, China accounts for the largest proportion of publications (n = 9), indicating its strong research emphasis on integrating heritage conservation with rapid urbanisation and urban transformation. In contrast, only isolated studies were identified from countries such as India and Algeria, while comparatively limited research was observed across Europe and other regions. This uneven distribution suggests that contemporary TUF research remains geographically concentrated, potentially reflecting differences in heritage policies, research priorities, and institutional investment across countries. Consequently, the existing body of knowledge may not fully represent the diverse socio-cultural and planning contexts of TUF worldwide. Expanding comparative research across underrepresented regions would therefore contribute to a more comprehensive understanding of how varying governance systems, cultural values, and planning approaches influence the conservation and revitalisation of TUF.

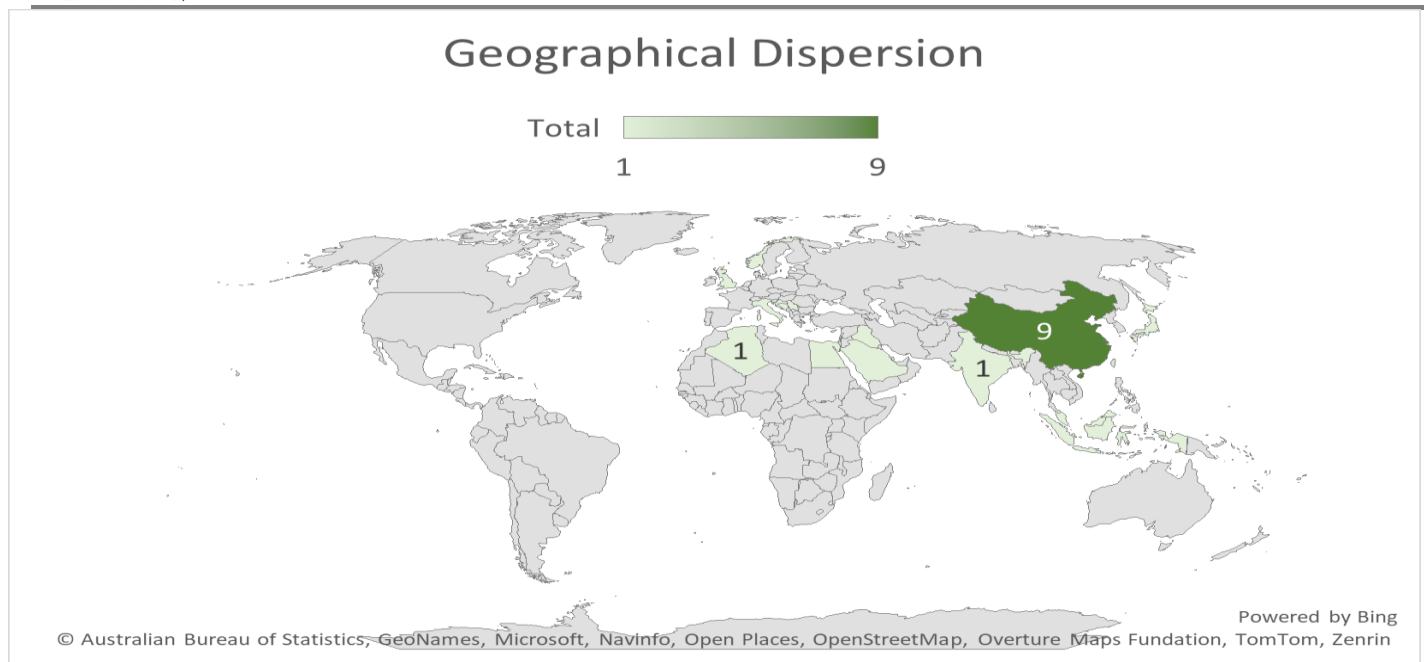


Figure 4. Geographical Dispersion of TUF Studies (2019–2024)

The distribution of the identified themes across the publication years is illustrated in Figure 5. The Sankey diagram shows how the thematic emphasis of TUF research developed between 2019 and 2024, with studies increasingly addressing urban revitalisation, spatial resilience, and environmental sustainability alongside heritage conservation. Although the themes are presented separately for analytical purposes, their combined distribution reflects the multidimensional development of contemporary TUF research.

The greater concentration of studies within Themes 2 and 4 indicates that recent scholarship has prioritised urban morphology, revitalisation, resilience, and environmental sustainability. In contrast, comparatively fewer studies address community participation and social inclusion, suggesting that the social dimensions of TUF remain less explored within the existing literature.

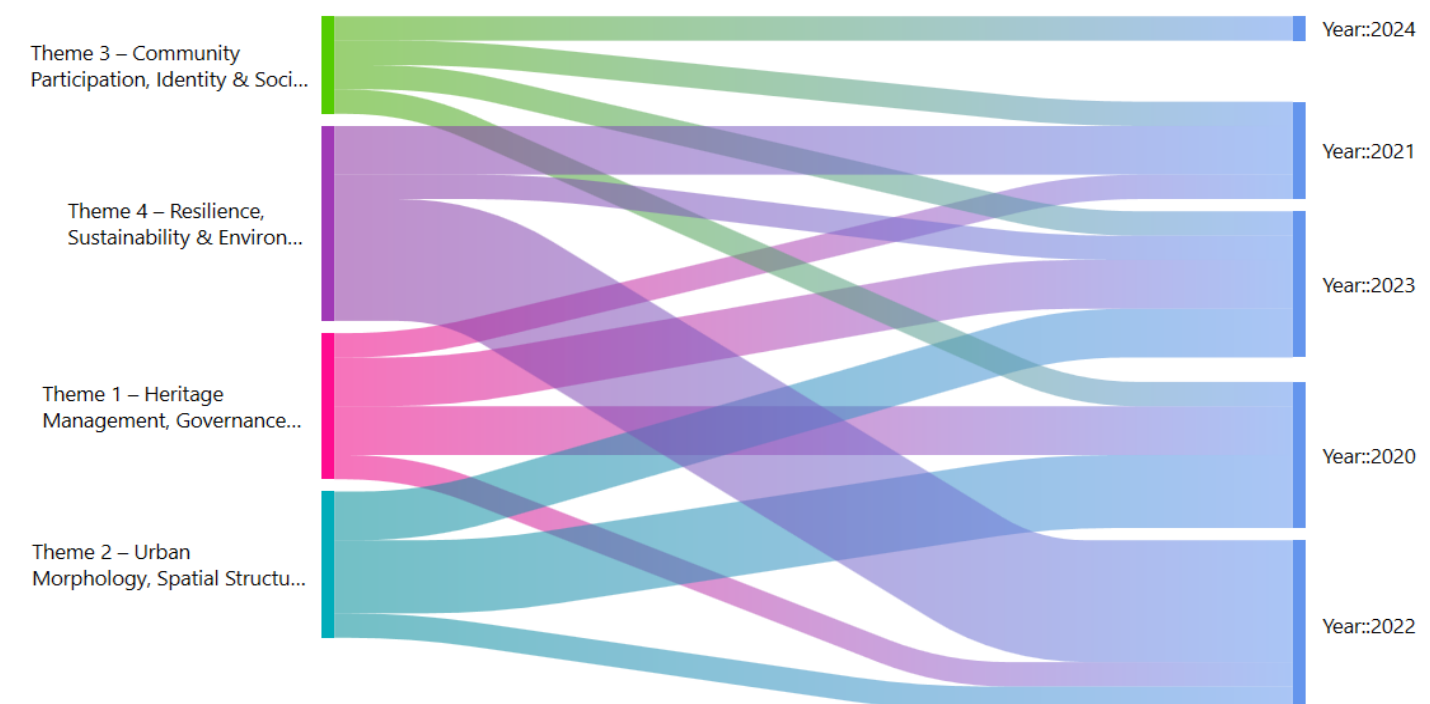


Figure 5. Sankey diagram illustrating the distribution of TUF research across the four identified themes (2019–2024)

To facilitate interpretation of the thematic findings, Tables 2 and 3 provide complementary summaries of the reviewed literature. Table 2 maps the distribution of the 25 selected studies across the four identified themes, illustrating the thematic emphasis of individual articles and the multidimensional nature of TUF research. Building upon this overview, Table 3 synthesises the defining features, representative studies, and key contributions of each theme to the integration of TUF within contemporary urban development. Together, these tables provide a conceptual roadmap for the detailed thematic discussion presented in the following sections.

Table 2. Mapping of Reviewed Studies Across the Four Themes

Author	Theme			
	Theme 1 - Heritage Management, Governance & Policy	Theme 2 - Urban Morphology, Spatial Structure & Revitalisation	Theme 3 - Community Participation, Identity & Social Inclusion	Theme 4 - Resilience, Sustainability & Environmental Integration
Gao et al. (2021)	-	-	-	/
Mrak et al. (2022)	-	-	-	/
Klingmann (2022)	-	-	-	/
Dhingra & Chattopadhyay (2021)	-	-	-	/
Kozłowski et al. (2022)	-	-	-	/
Oumelkheir & Nadia (2021)	/	-	-	-
Wonglangka & Han (2024)	-	-	/	-
Jiang et al. (2023)	/	-	-	-
Zhou et al. (2023)	-	/	-	-
Goleđzinowska (2023)	-	-	-	/
Wardhani & Bahri (2020)	-	/	-	-
Yin et al. (2019)	-	/	-	-
Wang & Gu (2020)	-	/	-	-
Barrett (2023)	-	/	-	-
Jiang et al. (2022)	-	-	-	/
Corovic & Obralic (2023)	-	-	/	-
J. Li et al. (2021)	-	-	/	-
X. Li et al. (2022)	-	-	-	/
Farhan et al. (2022)	-	/	-	-
Muminović et al. (2020)	/	-	-	-
Colavitti & Serra (2020)	-	/	-	-
Hussein et al. (2020)	-	-	/	-
Y. El-Bastawissi et al. (2022)	/	-	-	-
LI et al. (2023)	/	-	-	-
Guzman (2020)	/	-	-	-

Note: / indicates that the study was assigned to the corresponding theme; – indicates that the study was not assigned to that theme.

Table 3. Summary of the Four Themes and Their Contributions to TUF Integration (2019–2024)

Theme	Defining Features	Representative Studies	Contribution to Contemporary TUF Integration
Theme 1: Heritage Management, Governance & Policy	Strategic planning, adaptive governance, spatial analysis, sustainability assessment	Muminović et al. (2020); LI et al. (2023); Guzman (2020); Jiang et al. (2023)	Supports integrated governance frameworks that balance heritage conservation with sustainable urban development.

Theme 2: Urban Morphology, Spatial Structure & Revitalisation	Morphological analysis, spatial continuity, corridor planning, adaptive revitalisation	Wardhani & Bahri (2020); Wang & Gu (2020); Zhou et al. (2023); Farhan et al. (2022)	Guides heritage-sensitive revitalisation through spatial planning and conservation-based development.
Theme 3: Community Participation, Identity & Social Inclusion	Cultural memory, participatory governance, identity formation, social cohesion	Hussein et al. (2020); J. Li et al. (2021); Corovic & Obralic (2023); Wonglangka & Han (2024)	Encourages people-centred heritage planning by integrating local knowledge, cultural identity, and inclusive governance.
Theme 4: Resilience, Sustainability & Environmental Integration	Adaptive governance, environmental stewardship, resilience, traditional planning knowledge	Mrak et al. (2022); Gao et al. (2021); Kozlowski et al. (2022); X. Li et al. (2022)	Promotes resilient and sustainable heritage management through environmental integration and adaptive planning.

The following sections discuss each theme in greater detail, highlighting the principal research trends, conceptual developments, and planning implications identified across the reviewed studies.

Theme 1: Heritage Management, Governance & Policy

Heritage management and governance play a central role in safeguarding the cultural, spatial, and social values embedded within TUF. In rapidly urbanising contexts, these frameworks must preserve historic integrity while adapting to contemporary development needs through integrated conservation, planning, and policy mechanisms. As illustrated in Figure 6, the reviewed studies show that strategic planning, spatial approaches, and sustainability assessment collectively strengthen heritage governance and support sustainable heritage-led urban development. Across the reviewed studies, strategic planning emerges as the foundation of effective heritage governance. Muminović et al. (2020) propose a regeneration model that combines long-term vision with actionable planning measures to guide urban authorities. Extending this perspective, LI et al. (2023) argue that governance should also incorporate spatial biography and ecosystem thinking to ensure that conservation strategies remain context-responsive and ecologically grounded. Complementing these strategic approaches, Guzman (2020) introduces sustainability indicators that connect local heritage management practices with the United Nations Sustainable Development Goals, demonstrating how governance frameworks can simultaneously address conservation and sustainable development objectives.

These strategic frameworks are further strengthened by evidence-based spatial approaches. For example, Oumelkheir and Nadia (2021) apply the Analytical Hierarchy Process (AHP) to the delimitation of historic landscapes in Algiers, providing a robust basis for legal protection and policy formulation. Similarly, Jiang et al. (2023) apply spatial distribution analysis in Suzhou. These findings indicate that mapping heritage assets strengthens governance by balancing heritage continuity with urban growth pressures, highlighting the important role of spatial analytical tools in translating strategic planning objectives into evidence-based planning and policy decisions. The integration of heritage governance into complex urban realities is further illustrated by Y. El-Bastawissi et al. (2022), who apply the Historic Urban Landscape (HUL) approach to Beirut's post-crisis recovery. This approach enables cultural continuity to be embedded within reconstruction efforts, fostering both resilience and identity preservation. Collectively, these studies demonstrate that heritage governance extends beyond regulatory protection by providing adaptive planning mechanisms capable of responding to post-crisis recovery, urban transformation, and changing socio-environmental conditions.

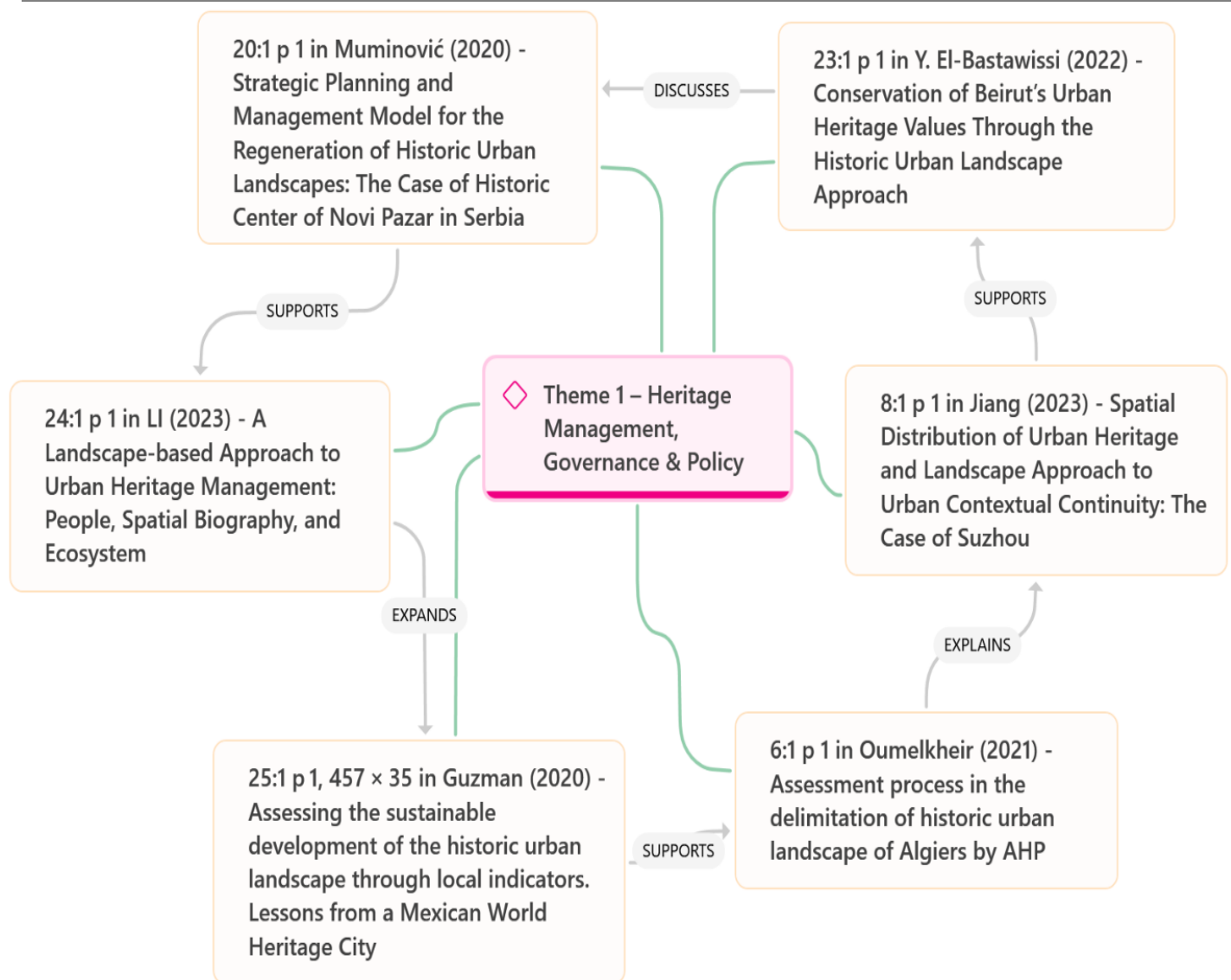


Figure 6. Network of Heritage Management, Governance & Policy (Theme 1)

Overall, Theme 1 demonstrates that effective heritage governance depends on the integration of strategic planning, spatial analysis, sustainability assessment, and adaptive governance rather than isolated planning instruments. Together, these approaches strengthen the capacity of TUF to respond to contemporary urban challenges while balancing heritage conservation with sustainable urban development.

Theme 2: Urban Morphology, Spatial Structure and Revitalisation

Urban morphology and spatial structure form the analytical foundation for understanding how TUF evolves while retaining its historical continuity. By examining street networks, block configurations, land-use patterns, and spatial relationships, morphological analysis informs revitalisation strategies that preserve the identity, functionality, and resilience of historic urban areas. As illustrated in Figure 7, the reviewed studies demonstrate how comparative morphological analysis, planning frameworks, corridor-based approaches, decentralisation strategies, and revitalisation practices collectively strengthen the management of TUF. Across the reviewed studies, urban morphology emerges as the foundation for understanding and guiding the revitalisation of historic urban environments. Wardhani and Bahri (2020) compare the urban morphology of Bengkulu and Singapore, demonstrating how differences in street patterns and block configurations influence the spatial character of historic districts. Extending this perspective, Wang and Gu (2020) integrate morphological analysis within the HUL framework, illustrating how physical urban structures can inform heritage-led planning while

accommodating contemporary urban transformation. Together, these studies demonstrate that morphological analysis provides an essential evidence base for balancing heritage conservation with future urban development.

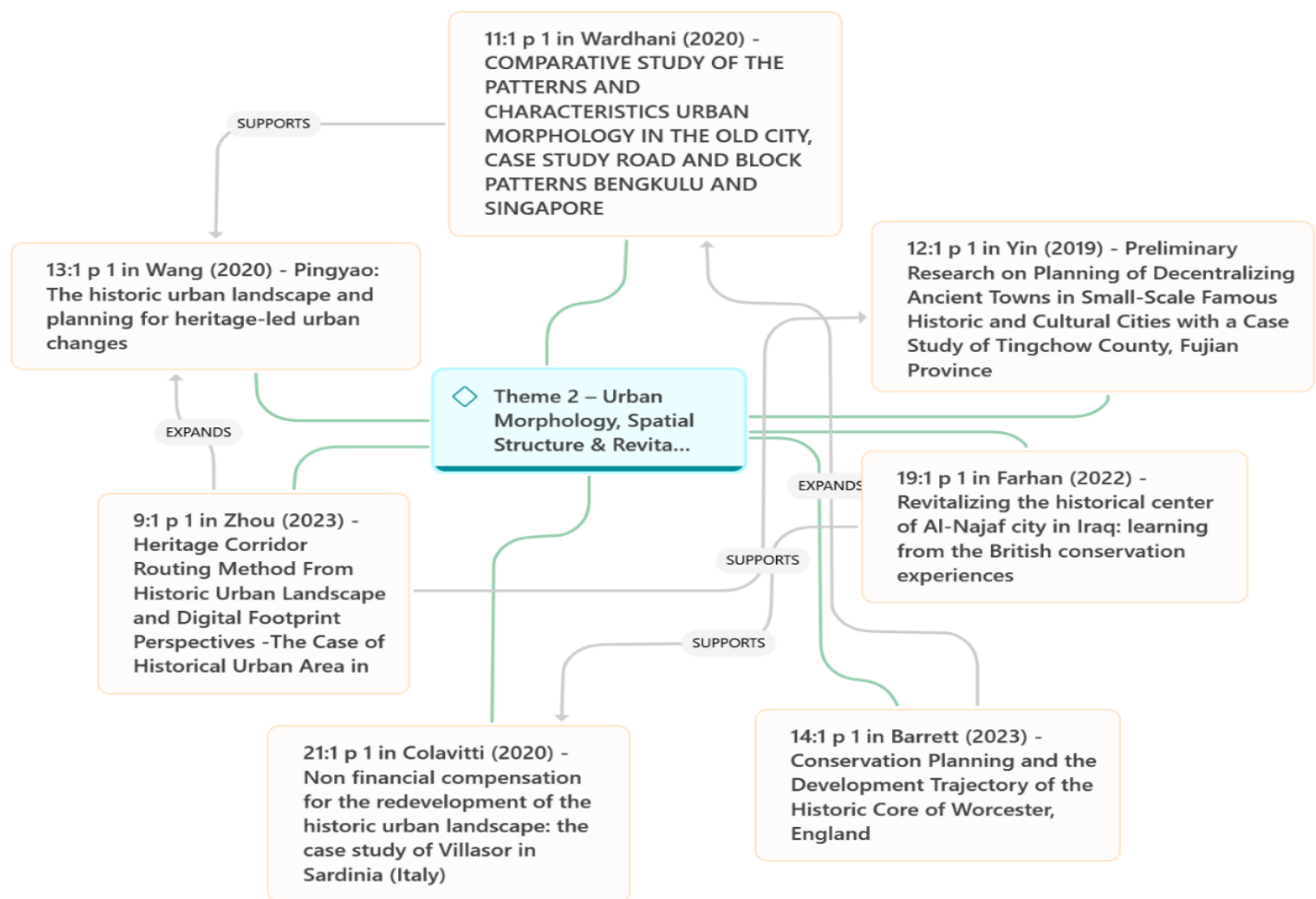


Figure 7. Network of Urban Morphology, Spatial Structure and Revitalisation (Theme 2)

Beyond comparative analysis, subsequent studies emphasise the importance of translating morphological knowledge into practical planning strategies. Zhou et al. (2023) introduce a heritage corridor routing method that combines HUL principles with digital footprint analysis to strengthen spatial connectivity between heritage assets. Similarly, Yin et al. (2019) advocate decentralisation strategies for small-scale historic towns by redistributing urban functions to reduce development pressure on heritage cores while maintaining their cultural significance. These findings demonstrate that spatial planning extends beyond documenting urban form by guiding development decisions that protect historic urban structure and continuity.

The application of morphological principles is further demonstrated through revitalisation and conservation initiatives. Farhan et al. (2022) adapt British conservation experiences to revitalise the historic centre of Al-Najaf, highlighting how physical regeneration can simultaneously support socio-economic revitalisation. Complementing this approach, Colavitti & Serra (2020) examine non-financial compensation mechanisms that encourage heritage-sensitive redevelopment while preserving the integrity of historic urban landscapes. Barrett (2023) further demonstrates how conservation planning within Worcester integrates an understanding of long-term morphological evolution into contemporary planning practice. Together, these studies show that successful revitalisation depends not only on conserving physical structures but also on aligning planning policies, economic mechanisms, and adaptive interventions with existing urban morphology.

Overall, Theme 2 demonstrates that urban morphology serves as a strategic planning framework rather than merely describing historic urban form. Integrating comparative morphological analysis, corridor planning,

decentralisation strategies, and conservation-based policy mechanisms enables TUF to accommodate contemporary urban development while preserving its historical character and cultural significance.

Theme 3: Community Participation, Identity & Social Inclusion

Community participation, identity, and social inclusion constitute central dimensions of sustainable heritage management within TUF. Beyond conserving physical structures, contemporary heritage planning increasingly recognises that historic urban environments derive their significance from the communities that inhabit, experience, and reinterpret them over time. As illustrated in Figure 8, the reviewed studies demonstrate how cultural memory, community participation, and social inclusion collectively support more people-centred approaches to heritage management.

The literature consistently positions cultural memory as the foundation of meaningful community participation within historic urban environments. Hussein et al. (2020) demonstrate that cultural memory and emotional attachment to place significantly influence psychosocial well-being, suggesting that the value of heritage extends beyond preserving physical environments to sustaining collective identity, belonging, and everyday social experience. Building upon this perspective, J. Li et al. (2021) illustrate how community participation in the heritage management of Lijiang is strengthened by incorporating local narratives, cultural values, and community knowledge into planning processes. Rather than treating local communities as passive beneficiaries of conservation policies, the study highlights their active role in maintaining the authenticity and continuity of heritage places. Together, these studies suggest that cultural memory underpins meaningful community participation and long-term heritage continuity.

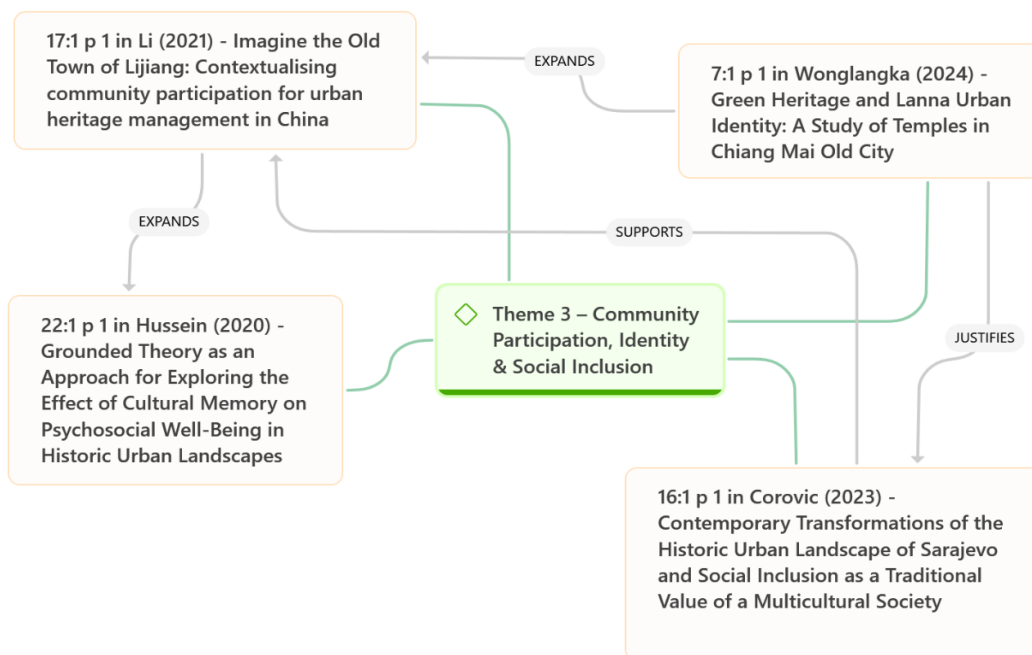


Figure 8. Network of Community Participation, Identity and Social Inclusion (Theme 3)

The reviewed studies further demonstrate that effective participation requires governance approaches capable of embracing social inclusion and cultural diversity. J. Li et al. (2021) argue that participatory heritage management strengthens the relationship between local communities and planning institutions by embedding local knowledge within decision-making processes. Extending this discussion, Corovic & Obralic (2023) examine the historic urban landscape of Sarajevo, illustrating how social inclusion contributes to preserving multicultural identity within a complex post-conflict context. Their findings suggest that heritage governance should move beyond physical conservation by recognising historical experiences, cultural diversity, and social cohesion as integral components of sustainable urban development. Together, these studies demonstrate that community participation

is most effective when supported by inclusive governance frameworks that acknowledge diverse cultural narratives and strengthen social cohesion within historic urban environments.

Identity formation represents another important dimension of community-centred heritage management. Wonglangka & Han (2024) explore the relationship between green heritage and Lanna urban identity through the symbolic landscape of temples in Chiang Mai's Old City. Their study demonstrates that identity is reinforced not only through formal planning initiatives but also through everyday cultural practices, rituals, and continuous interaction between communities and historic urban spaces. This perspective expands conventional understandings of participation by recognising symbolic landscapes and lived cultural experiences as equally important mechanisms for sustaining heritage values. Rather than viewing participation solely as involvement in planning processes, the findings suggest that identity is continuously reproduced through daily engagement with culturally significant places. These findings broaden the understanding of heritage participation by demonstrating how symbolic landscapes, cultural practices, and community interaction sustain local identity within TUF.

Overall, Theme 3 demonstrates that community participation, cultural identity, and social inclusion operate as interconnected dimensions of sustainable heritage management rather than independent planning objectives. The reviewed studies show that conserving TUF requires planning approaches that recognise not only tangible heritage assets but also the lived experiences, collective memories, and cultural practices of local communities. Consequently, heritage conservation has evolved from a predominantly physical intervention into a more participatory and socially embedded planning approach that strengthens cultural continuity, community identity, and inclusive urban development.

Theme 4: Resilience, Sustainability & Environmental Integration

Resilience, sustainability, and environmental integration constitute essential dimensions in contemporary heritage planning within TUF. As historic urban areas face rapid urbanisation, climate-related risks, and socio-economic transformation, heritage conservation has evolved beyond protecting individual buildings towards strengthening the adaptive capacity of entire urban systems. As illustrated in Figure 9, the reviewed studies demonstrate how resilience is reinforced through environmental integration, traditional planning knowledge, adaptive governance, and critical reflections on sustainable urban development.

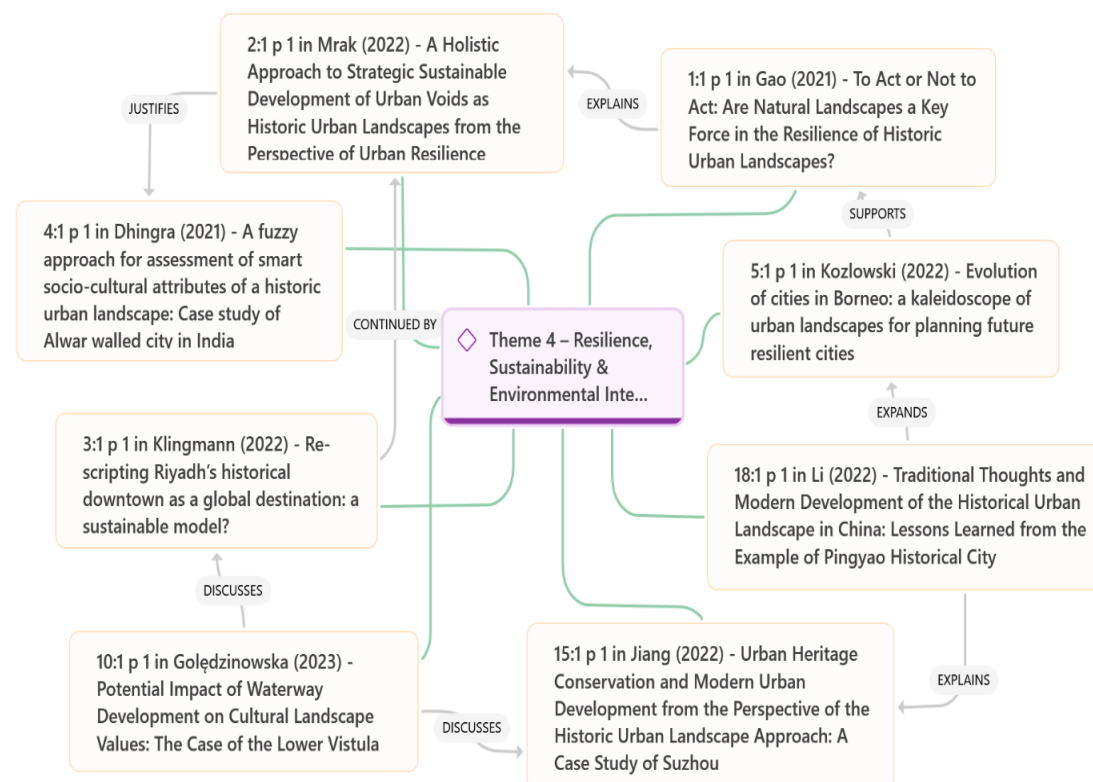


Figure 9. Network of Resilience, Sustainability & Environmental Integration (Theme 4)

The literature consistently positions resilience as the foundation of sustainable heritage management. Mrak et al. (2022) propose a holistic framework that reconceptualises urban voids within historic cities as strategic assets capable of supporting long-term sustainability and urban resilience. Extending this perspective, Dhingra & Chattopadhyay (2021) introduce a fuzzy logic approach for assessing socio-cultural attributes within historic urban landscapes, demonstrating how adaptive evaluation methods can support evidence-based planning decisions. Complementing these strategic approaches, Jiang et al. (2022) apply the HUL framework in Suzhou, illustrating how heritage conservation can accommodate contemporary development without compromising historical continuity. Together, these studies demonstrate that resilience is strengthened through the integration of strategic planning, adaptive assessment, and heritage governance within sustainable urban development.

Environmental integration represents another essential dimension of resilient heritage planning. Gao et al. (2021) argue that natural landscapes should not be viewed as peripheral elements but as fundamental components of historic urban resilience, highlighting the role of rivers, green spaces, and ecological systems in sustaining heritage environments. Building upon this perspective, Kozłowski et al. (2022) examine the evolution of urban landscapes in Borneo, demonstrating how landscape diversity contributes to future-oriented urban resilience. Similarly, X. Li et al. (2022) revisit traditional Chinese planning philosophies through the case of Pingyao, illustrating that environmental harmony has historically been embedded within urban development practices. Together, these studies suggest that heritage conservation and sustainable urban development are mutually reinforcing dimensions of resilient urban planning.

Beyond environmental integration, the reviewed studies further demonstrate that resilient heritage planning depends upon culturally responsive governance and critical evaluation of development practices. Jiang et al. (2022) illustrate how local governance frameworks mediate between international HUL principles and city-specific planning contexts, while X. Li et al. (2022) demonstrate that indigenous planning knowledge continues to provide valuable guidance for contemporary urban resilience. However, the literature also offers important critical perspectives. Klingmann (2022) questions sustainability models that commodify heritage for global consumption, arguing that regeneration strategies may prioritise economic branding over cultural authenticity. Similarly, Gołędzinowska (2023) highlights how large-scale infrastructure interventions can threaten cultural landscape values despite being justified through sustainability objectives. These contrasting perspectives suggest that resilience should be understood not only as a technical planning objective but also as a socially and culturally negotiated process requiring continuous evaluation of development priorities.

Overall, Theme 4 demonstrates that resilience, sustainability, and environmental integration function as interconnected dimensions of contemporary heritage planning rather than isolated planning objectives. The reviewed studies indicate that sustainable management of TUF requires the integration of adaptive governance, environmental stewardship, cultural continuity, and context-sensitive planning approaches. At the same time, sustainability agendas must be critically evaluated to ensure that economic development does not undermine cultural authenticity, allowing resilient heritage planning to balance environmental resilience, cultural values, and adaptive governance in support of sustainable and inclusive urban futures.

DISCUSSION AND FUTURE STUDIES

The increasing body of research on TUF reflects a growing recognition that historic urban environments should be understood not merely as collections of heritage assets but as dynamic urban systems that continue to evolve alongside contemporary development. The thematic synthesis of 25 peer-reviewed studies published between 2019 and 2024 demonstrates that recent scholarship has progressively expanded beyond conventional conservation approaches towards more integrated perspectives encompassing governance, spatial planning, community participation, and environmental sustainability. Collectively, these findings suggest that the long-term viability of TUF depends on balancing heritage conservation with adaptive urban transformation rather than treating these objectives as mutually exclusive.

The four themes identified in this review demonstrate that contemporary TUF research has evolved into a more integrated urban planning perspective in which governance, spatial planning, community participation, and environmental sustainability are increasingly interconnected. Heritage governance provides the institutional and policy foundations for conservation, while urban morphology offers spatial evidence to guide revitalisation strategies. Community participation reinforces cultural identity and social continuity, whereas resilience and environmental integration position historic urban areas within broader sustainability agendas. Collectively, these findings indicate a broader shift from conservation-oriented perspectives towards integrated planning approaches that position TUF as an active component of contemporary urban development rather than a static historic asset.

While existing studies have frequently examined heritage governance, urban morphology, community participation, or environmental sustainability as separate areas of investigation, this review integrates these perspectives into a coherent thematic framework that explains how they collectively contribute to the integration of TUF within contemporary urban development. Rather than conceptualising TUF solely as a conservation concern, the thematic synthesis positions it as an integrated urban planning concept in which governance, spatial structure, community participation, and environmental resilience operate as interdependent components. This integrated perspective represents the principal conceptual contribution of the review, providing a structured understanding of how these interconnected dimensions collectively support sustainable heritage-led urban development.

Despite this progress, the review reveals an important conceptual gap within the existing literature. Although governance, urban morphology, community participation, and environmental sustainability are widely acknowledged as important dimensions of TUF, most studies continue to examine them independently, providing limited understanding of how they interact to support comprehensive urban revitalisation. Consequently, there remains a lack of integrated planning frameworks capable of systematically connecting these interrelated dimensions into a coherent approach for managing TUF within rapidly changing urban environments.

The review also highlights several methodological and geographical limitations. Most studies rely on qualitative case study approaches within individual cities, while comparative investigations across different cultural and planning contexts remain relatively limited. Furthermore, the geographical distribution of publications is heavily concentrated in East Asia, particularly China, reflecting strong research capacity and policy attention within the region. Although these studies provide valuable insights, the limited representation of many heritage-rich regions, including parts of Southeast Asia, Africa, and South America, restricts the wider applicability of existing knowledge. Expanding comparative research across different governance systems and socio-cultural settings would contribute to developing more transferable heritage planning strategies.

Future research should therefore move beyond documenting isolated heritage conservation practices towards developing more integrated approaches that combine governance, spatial planning, community participation, and environmental sustainability within a unified planning framework. Such integration would strengthen both the theoretical understanding and practical application of TUF by providing planners and decision-makers with more holistic guidance for managing historic urban environments. Greater interdisciplinary collaboration between urban planning, heritage conservation, environmental management, and social sciences is also needed to capture the complexity of contemporary heritage-led urban development.

In addition, future studies should continue exploring the application of digital technologies, spatial analytical tools, and participatory planning methods to strengthen evidence-based heritage management. Longitudinal research examining the social, economic, cultural, and environmental outcomes of heritage-led revitalisation would further contribute to understanding the long-term effectiveness of different planning approaches. By addressing these research priorities, future scholarship can advance more adaptive, context-sensitive, and sustainable strategies for integrating TUF within contemporary urban development while safeguarding its cultural significance for future generations.

Contributions and Benefits of Study

This study makes both conceptual and practical contributions by systematically synthesising fragmented TUF research into an integrated thematic framework that explains how governance, urban morphology, community participation, and environmental sustainability collectively support heritage-led urban development. Through the analysis of 25 peer-reviewed studies published between 2019 and 2024, the review identifies four interconnected themes—heritage management and governance, urban morphology and revitalisation, community participation and social inclusion, and resilience with environmental integration—that collectively explain the multidimensional nature of TUF. By bringing these themes together, the study provides a more comprehensive perspective on heritage-led urban development and highlights the interrelationships that underpin sustainable conservation practices.

A key contribution of this review lies in identifying the conceptual fragmentation within existing TUF research. While previous studies have predominantly examined governance, morphology, community participation, or environmental sustainability as separate areas of investigation, this review demonstrates how these dimensions collectively influence the planning, conservation, and revitalisation of historic urban environments. Consequently, the proposed thematic synthesis establishes a structured knowledge base that can support future research towards developing more integrated planning approaches for TUF.

The findings also provide practical value for multiple stakeholder groups. For policymakers, the review highlights the importance of governance frameworks that balance heritage conservation with contemporary urban development. For urban planners and heritage practitioners, the synthesis identifies planning approaches that integrate spatial analysis, revitalisation strategies, community participation, and environmental resilience within heritage-sensitive interventions. For researchers, the thematic framework offers a structured foundation for comparative studies, interdisciplinary collaboration, and methodological advancement in the field of heritage-led urban planning.

Beyond its practical implications, this review also contributes to future scholarship by identifying important research opportunities. The geographical concentration of existing studies, the fragmented treatment of key planning dimensions, and the limited integration of interdisciplinary approaches indicate the need for more comprehensive and context-sensitive research frameworks. These findings provide a foundation for advancing future investigations into TUF while supporting more adaptive, culturally responsive, and sustainable approaches to heritage planning.

Overall, this review demonstrates that the integration of TUF within contemporary urban development depends upon the interaction of governance, urban morphology, community participation, and environmental sustainability rather than any single planning dimension. By synthesising these interconnected perspectives into a coherent thematic framework, the study makes a principal conceptual contribution to the literature by positioning TUF as an integrated urban planning concept rather than solely a heritage conservation concern. This integrated understanding provides a stronger conceptual foundation for future research, planning frameworks, heritage policy, and sustainable urban development.

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