

## Adaptive Reuse of Heritage Buildings in Cultural Tourism: A Multi-Layered Design-Tourism Interface Framework from Kota Lama Surabaya

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Article History	Abstract
Received: 18 April 2025 Accepted: 28 May 2026 Published: 27 June 2026	<p><i>Historic urban heritage areas are key resources for cultural tourism but often face challenges of functional obsolescence and underutilization. Existing studies, however, often examine adaptive reuse from architectural or tourism perspectives separately, with limited integration between these dimensions. This study examined how design-based adaptive reuse of heritage buildings contributes to cultural tourism development in Kota Lama Surabaya by analyzing functional repositioning, design mediation, and tourism value structuring as interconnected processes shaping tourism outcomes. A qualitative multi-case study approach was employed, focusing on four heritage buildings representing different cultural zones. Data were collected through field observations, in-depth interviews, and document analysis, and analyzed using within-case and cross-case comparative methods. The findings reveal that adaptive reuse operates as an integrated interaction-based system rather than a linear transformation. Functional repositioning redefines the role of heritage buildings within socio-economic and tourism systems, while design mediation translates these changes into spatial experiences and cultural narratives. Tourism value emerges through the interplay of economic, experiential, and symbolic dimensions, which are often characterized by inherent tensions. This study proposes a multi-layered design-tourism interface framework, demonstrating that the effectiveness of adaptive reuse depends on the alignment between function, design, and value. Through integrating design and tourism perspectives, the study contributes to adaptive reuse literature by conceptualizing heritage transformation as an interconnected socio-spatial and experiential process within tourism systems.</i></p> <p><b>Keywords:</b> <i>adaptive reuse; cultural tourism; design mediation; heritage tourism; tourism value structuring</i></p>



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### INTRODUCTION

Historic urban areas represent significant cultural assets that embody collective memory, identity, and place-based cultural narratives, while simultaneously functioning as strategic resources for cultural tourism development (Ashworth, 2011; Richards, 2021; Gravari-Barbas & Guinand, 2017; Spina, 2021). In recent years, heritage-based tourism has increasingly contributed to urban economic development, as contemporary tourists tend to seek authentic, experience-oriented destinations rooted in historical narratives and cultural distinctiveness (UNWTO, 2023; Spina, 2021). Beyond their symbolic value, heritage environments also serve as catalysts for enhancing urban attractiveness and reinforcing place identity through spatial and cultural experiences (Ghida, 2024). However, many historic urban

areas continue to face critical challenges, including the physical deterioration of heritage buildings, functional obsolescence, and pressures from rapid urbanization, which collectively reduce their competitiveness and long-term sustainability as tourism destinations (Vardopoulos et al., 2023; Misirlisoy & Günçe, 2016; Dodds & Butler, 2019). These challenges indicate that heritage assets are not only subject to physical decline but also to shifting socio-economic and functional dynamics within urban systems.

To address these issues, adaptive reuse has emerged as a strategic and increasingly adopted approach in sustainable urban regeneration, enabling heritage buildings to be transformed into new functional spaces while preserving their historical and architectural significance (Plevoets & van Cleempoel, 2019; Vafaie et al., 2023; Pintossi et al., 2023). In addition, adaptive reuse is increasingly recognized as part of broader sustainability and circularity agendas, where the reuse of existing buildings contributes to resource efficiency, environmental performance, and long-term urban resilience (Foster, 2020; Kaya et al., 2021). From a design perspective, adaptive reuse extends beyond mere functional conversion and involves a design-mediated transformation process that integrates spatial adaptation, architectural intervention, and contextual reinterpretation. This perspective highlights that the effectiveness of adaptive reuse depends not only on what new functions are introduced but also on how design mediates the relationship between heritage value and contemporary use, thereby influencing both spatial quality and experiential outcomes.

Beyond its implications in architectural and spatial design, adaptive reuse also plays a crucial role in tourism development. From a tourism perspective, reused heritage buildings can function as cultural and economic nodes that stimulate tourism flows, reinforce place identity, and contribute to broader processes of urban regeneration (Rudan, 2023; Styliadis, 2018; Andrade et al., 2024). At the same time, design decisions, such as façade preservation, spatial configuration, and circulation patterns, directly influence how visitors perceive, navigate, and interpret heritage spaces, thereby shaping tourism value through experiential engagement and meaning construction (Neuhofer et al., 2015; Song et al., 2024; Tussyadiah, 2020). Recent studies further emphasize that the success of adaptive reuse is not only determined by design intention but also by post-use experience and user perception, highlighting the importance of evaluating how visitors interact with and experience reused heritage environments (Tan et al., 2026). This suggests that tourism value emerges not only from heritage assets themselves, but also from how they are spatially and experientially mediated through design.

Despite its growing relevance, the relationship between adaptive reuse, design intervention, and cultural tourism development remains insufficiently explored, particularly in explaining how these dimensions are operationally integrated at the level of individual buildings within complex urban heritage systems. Existing research tends to emphasize either architectural conservation or tourism development, with limited integration between these perspectives (Vafaie et al., 2023; Gravagnuolo et al., 2024; Foster, 2020; Pintossi et al., 2023). Furthermore, adaptive reuse is increasingly understood as a multi-phase and multi-actor process involving complex decision-making dynamics, rather than a purely architectural intervention (van Laar et al., 2024). Consequently, there is still a lack of comprehensive

understanding of how functional repositioning, design mediation, and tourism value structuring operate as interconnected processes in shaping tourism outcomes.

Although previous studies have examined adaptive reuse from architectural, conservation, or tourism perspectives, these dimensions are often discussed separately. Existing research predominantly emphasizes physical preservation, functional conversion, or tourism development as isolated processes, with limited attention to how these dimensions interact relationally within multicultural heritage tourism contexts. In addition, adaptive reuse is frequently approached as a technical or functional intervention rather than as an integrated socio-spatial and experiential process. Addressing this gap, the present study adopts an integrated design-tourism perspective and proposes a conceptual framework that positions adaptive reuse as a multi-layered relational process linking functional repositioning, design mediation, and tourism value structuring within historic urban environments.

Kota Lama Surabaya (Surabaya Old Town) provides a relevant context to address this gap. As a historic urban area shaped by multicultural interactions among European, Chinese, Arab, and Malay communities, the area contains a diverse assemblage of heritage buildings with distinct architectural and spatial characteristics. This diversity reflects its historical role as a trading and cultural hub and contributes to its potential as a cultural tourism destination. However, despite this potential, the area faces several challenges, including uneven revitalization, underutilized heritage buildings, and variations in adaptive reuse practices across different sites.

In particular, some heritage buildings have undergone adaptive reuse with varying degrees of functional repositioning and design intervention, while others remain underutilized or lack integration into tourism activities. These conditions indicate that heritage buildings within Kota Lama Surabaya occupy different positions within the tourism system, resulting in varying levels of tourism activation and visitor engagement. This highlights the need for an integrated understanding of adaptive reuse as a process linking functional repositioning, design mediation, and tourism value structuring.

Based on these conditions, this study addressed the following research question: how do design-based adaptive reuse practices of heritage buildings contribute to cultural tourism development in a multicultural historic urban context? To answer this question, the study aimed to examine (1) functional repositioning of heritage buildings, (2) design-mediated transformation in adaptive reuse, and (3) the structuring of tourism value resulting from these processes, using a multi-case study approach in Kota Lama Surabaya.

This study contributes to the literature by integrating design and tourism perspectives in understanding adaptive reuse practices. It proposes an integrated design-tourism framework that conceptualizes adaptive reuse as a relational process linking functional repositioning, design mediation, and tourism value structuring. The study extends existing adaptive reuse literature by repositioning heritage transformation as a dynamic interaction between socio-economic, spatial, and experiential dimensions within tourism systems. In addition, the study provides insights for designers, planners, and policymakers in developing context-sensitive strategies for heritage conservation and cultural tourism development.

## **RESEARCH METHOD**

This study employed a qualitative multi-case study design to examine how design-based adaptive reuse contributes to cultural tourism development in Kota Lama Surabaya. This approach is particularly suitable for investigating complex and context-dependent relationships between spatial transformation, design intervention, and socio-cultural dynamics within real-life settings (Yin, 2018; Creswell & Poth, 2018; van Laar et al., 2024). The multi-case design enabled comparative analysis across different cultural zones, allowing the identification of patterns and variations in adaptive reuse practices while strengthening analytical rigor. The unit of analysis in this study was individual heritage buildings that have undergone adaptive reuse.

The study focused on four heritage buildings representing the European, Chinese, Arab, and Malay cultural zones. The cases were selected through purposive sampling based on several criteria, including historical significance, evidence of adaptive reuse, representation of cultural diversity, and relevance to tourism activities. The selected cases were Hotel Horizon Arcadia Heritage Rajawali Surabaya, Rumah Abu Han, Hotel Kemajuan, and Rumah H.O.S. Tjokroaminoto. Each case represents a distinct adaptive reuse condition, including conversion into hospitality use, minimal intervention residential heritage, functional continuity, and museum-based cultural reuse. This selection ensured that the cases reflected varying configurations of functional repositioning, design intervention, and tourism activation within a multicultural urban heritage context.

The study adopts an integrated design-tourism perspective, positioning adaptive reuse as a relational process linking socio-economic repositioning, spatial mediation, and tourism value production. This perspective guided the analytical framework and interpretation of findings. Data were collected through field observations, in-depth semi-structured interviews, and document analysis of archival and planning records (Creswell & Poth, 2018). A total of 11 participants were involved in the interview process, consisting of building managers, tourism actors, local community representatives, cultural practitioners, and stakeholders involved in heritage and tourism activities within Kota Lama Surabaya. The interviews explored several themes, including adaptive reuse strategies, spatial transformation, preservation challenges, tourism activities, visitor engagement, and the perceived role of heritage buildings within the tourism system.

Field observations focused on spatial configuration, visitor activities, circulation patterns, preservation conditions, and design interventions within each case study building. Documentary analysis included archival materials, planning documents, historical records, and institutional reports related to heritage conservation and tourism development. To enhance the credibility of the findings, data triangulation was conducted by systematically comparing observational findings, interview responses, and documentary evidence across cases. For example, interview statements regarding tourism functions, preservation practices, and visitor engagement were cross-checked with field observations and archival documentation to ensure consistency of interpretation. The analysis was further strengthened through iterative interpretation and cross-case validation.

The analytical framework served as an integrated lens combining design and tourism perspectives, operationalizing three key dimensions derived from and synthesized based on existing literature: (1) functional repositioning, including historical value, architectural characteristics, and changes in building function; (2) design mediation, including spatial adaptation, preservation of architectural elements, and visual compatibility; and (3) tourism value structuring, including visitor activities, experiential qualities, and contributions to destination development (Plevoets & van Cleempoel, 2019; Vafaie et al., 2023; Kaya et al., 2021). This framework enabled a systematic examination of adaptive reuse as a multi-layered process linking design and tourism outcomes.

Data analysis was conducted using a qualitative descriptive and comparative approach. The analysis consisted of three stages: (1) within-case analysis to examine each building in depth, (2) cross-case analysis to identify patterns and variations across cases, and (3) integrative synthesis to explain how functional repositioning, design mediation, and tourism value structuring interact in shaping cultural tourism activation within a multicultural historic urban context.

## **RESULT AND DISCUSSION**

### **Socio-Economic Repositioning of Adaptive Reuse**

This study conceptualizes adaptive reuse as a multi-layered process of socio-economic repositioning, in which heritage buildings are re-integrated into contemporary tourism systems. Within this perspective, functional repositioning constitutes the first analytical layer, explaining how buildings shift across economic, cultural, and spatial dynamics. Adaptive reuse has been widely understood not only as a physical intervention but also as a strategic process that enables buildings to retain value while adapting to new functional demands and market conditions (Vafaie et al., 2023; Bullen & Love, 2011; Langston, 2018; Kaya et al., 2021). This perspective emphasizes that functional repositioning is closely linked to broader processes of economic activation and urban regeneration.

Building on this conceptual framework, the empirical findings demonstrate how such repositioning manifests across different heritage contexts. Adaptive reuse in Kota Lama Surabaya reveals that the transformation of heritage buildings extends beyond changes in use and involves the redefinition of roles, meanings, and value structures within evolving urban and tourism contexts. This repositioning operates across multiple dimensions: spatial, functional, economic, and symbolic, reflecting the complexity of integrating heritage assets into contemporary urban systems (Misirlisoy & Günçe, 2016; Plevoets & van Cleempoel, 2019; Spina & Giorno, 2021). Field observations indicated that several reused buildings were actively integrated into visitor circulation patterns, tourism-oriented commercial activities, and heritage-based experiential settings. Interviews with local stakeholders further highlighted the importance of balancing economic activation with heritage preservation within the tourism system.

At the empirical level, the four case study buildings demonstrate different configurations of functional repositioning, as illustrated in **Figure 1**, reflecting varying degrees of economic integration, preservation intensity, and visitor-oriented activation. These

differences indicate that tourism-related outcomes are shaped not only by functional transformation, but also by the degree of alignment between preservation strategy, spatial intervention, and tourism integration. Hotel Horizon Arcadia Heritage shows the strongest integration into the tourism economy, whereas Rumah Abu Han emphasizes preservation-oriented experiential value with limited commercial transformation. Meanwhile, Hotel Kemajuan and Rumah H.O.S. Tjokroaminoto represent intermediate configurations characterized by functional continuity and narrative-based cultural engagement.





	<b>Hotel Horizon Arcadia Heritage</b>	<b>Rumah Abu Han</b>	<b>Hotel Kemajuan</b>	<b>Rumah H.O.S. Tjokroaminoto</b>
<b>Case Study Building</b>				
<b>Functional Repositioning</b>	High transformation (Office → Hotel)	Minimal intervention	Functional continuity	Symbolic transformation
<b>Design Mediation</b>	Layered intervention	Authentic preservation	Moderate adaptation	Narrative-driven design
<b>Tourism Value</b>	Economic value intensification	Experiential value	Moderate tourism integration	Cultural activation

Figure 1. Comparative Case Matrix of Adaptive Reuse in Kota Lama Surabaya  
 Source: Field Documentation, 2025

At the micro level, the transformation of Hotel Horizon Arcadia Heritage represents a high-intensity socio-economic repositioning, in which the building is not only functionally converted into a hotel but also structurally embedded within the tourism economy. Field observations showed that preserved façade elements, circulation spaces, and hospitality functions were spatially integrated to support both tourism operations and heritage representation. This embedding occurs through its integration into accommodation networks, visitor circulation systems, and service infrastructures. As a result, the building transitions from a static administrative asset into a productive tourism infrastructure. This finding aligns with studies that position adaptive reuse as a mechanism for enhancing economic performance while extending building lifecycle and functional value (Bullen & Love, 2011; Vardopoulos et al., 2023). Furthermore, this repositioning reflects the integration of heritage assets into broader urban economic systems rather than isolated functional change.

In contrast, Rumah Abu Han represents a preservation-oriented form of repositioning, where socio-cultural continuity is prioritized over economic integration. While the building allows limited tourism engagement, it maintains its original function and spatial authenticity. This case reinforces the concept of minimal intervention in adaptive reuse (Plevoets & van Cleempoel, 2019), while also demonstrating that tourism value can emerge from authenticity, cultural meaning, and experiential engagement. This aligns with tourism literature suggesting that value is co-created through visitor experience and perceived authenticity rather than solely through functional repositioning (Stylidis, 2018; Prebensen et al., 2018; Campos et al., 2018; Vargo & Lusch, 2008; Tan et al., 2026). Interviews with local stakeholders suggested that

visitors were primarily attracted by the building's preserved spatial authenticity and historical atmosphere rather than by commercial tourism activities.

Between these two extremes, Hotel Kemajuan occupies an intermediate position characterized by functional continuity, where adaptive reuse does not introduce a new function but recontextualizes an existing one within a contemporary tourism system. This finding highlights that continuity itself can function as an adaptive strategy when aligned with changing tourism dynamics and market conditions, particularly when supported by incremental adjustments rather than radical transformation (Vafaie et al., 2023).

Meanwhile, Rumah H.O.S. Tjokroaminoto demonstrates a form of symbolic-cultural repositioning, where the building's primary function shifts toward heritage interpretation and public engagement. As a museum, it transforms private space into a narrative-driven public environment. This transformation reflects the role of adaptive reuse in enabling heritage interpretation and cultural representation, where spatial adaptation facilitates storytelling, collective memory, and identity formation within tourism contexts (Timothy, 2011; Gravagnuolo et al., 2024). Observational findings further indicated that exhibit arrangement and circulation sequencing guided visitors through a narrative-based interpretive experience.

When examined comparatively, these cases reveal that adaptive reuse operates along a multi-dimensional continuum that reflects varying degrees of alignment between cultural preservation and market-oriented integration, as illustrated in **Figure 2**. This continuum ranges from preservation-oriented approaches emphasizing cultural authenticity to market-oriented approaches prioritizing economic integration and tourism intensity (Prebensen et al., 2018; Campos et al., 2018; Waterton & Watson, 2015).

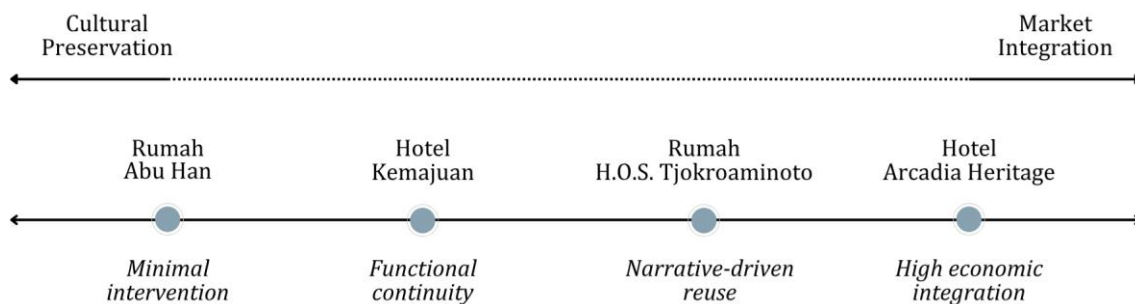


Figure 2. Socio-Economic Repositioning Continuum of Adaptive Reuse Cases  
Source: Authors, 2026

Rather than representing a simple spectrum, the empirical findings suggest that this continuum constitutes a key analytical finding, demonstrating that adaptive reuse produces differentiated value regimes depending on the degree of market integration and cultural preservation. Buildings oriented toward market integration tend to emphasize economic performance and accessibility, while those oriented toward preservation highlight authenticity and experiential richness. This differentiation aligns with tourism value theory, which suggests that tourism value is co-created through the interaction between tangible assets and experiential engagement (Prebensen et al., 2018; Campos et al., 2018).

Importantly, these value regimes are not mutually reinforcing but instead represent inherent trade-offs between economic optimization and cultural preservation. Market-oriented reuse may lead to functional standardization and reduced heritage distinctiveness, whereas preservation-oriented reuse may limit economic scalability and accessibility. This tension confirms that adaptive reuse outcomes are not inherently optimal but are contingent upon negotiated trade-offs across competing objectives. In this sense, adaptive reuse should be understood as a process of negotiation between economic viability, cultural authenticity, and experiential value (Rudan, 2023; Vardopoulos et al., 2023).

Crucially, while this section explains how buildings are repositioned within socio-economic systems, it does not yet explain how these transformations are experienced and interpreted by visitors. This limitation underscores the need to examine design intervention as a mediating mechanism, which is addressed in the following section.

From a theoretical perspective, this study contributes by reframing adaptive reuse as a relational and system-based process that links spatial transformation with tourism value production. This shifts the analytical focus from static functional change to dynamic relational transformation, positioning adaptive reuse as a continuously evolving process within tourism systems

### **Design Intervention as a Mechanism of Experiential Translation**

Building upon the previous section, this study positions design intervention as a critical mechanism through which adaptive reuse translates heritage into tourism experience. While functional repositioning explains how buildings are integrated into tourism systems, it does not fully account for how these transformations are perceived and experienced by visitors. Design intervention therefore operates as a process of experiential translation, converting spatial transformation into structured experiential and interpretive outcomes.

The findings indicate that adaptive reuse in Kota Lama Surabaya operates as a design-driven transformation, in which architectural interventions actively shape visitor perception, engagement, and interpretation. In this context, design extends beyond technical modification and functions as a structuring mechanism that mediates how space is experienced. This aligns with tourism studies that emphasize experience as a co-created process emerging from the interaction between physical environments and visitor engagement (Prebensen et al., 2018; Campos et al., 2018). Consequently, spatial configuration, material articulation, and functional adaptation collectively influence how heritage is encountered, interpreted, and valued.

At the micro level, Hotel Horizon Arcadia Heritage demonstrates a layered intervention strategy, in which façade preservation is combined with substantial interior transformation. This creates a dual condition where the historical exterior is retained, while the interior is reconfigured to produce new experiential qualities aligned with contemporary hospitality functions. Rather than preserving authenticity in a static form, this approach reconstructs perceived authenticity through spatial and functional adaptation. This finding is consistent with adaptive reuse literature emphasizing the balance between conservation and transformation in generating viable new uses for heritage buildings (Vafaie et al., 2023).

In contrast, Rumah Abu Han represents a preservation-oriented approach, where minimal intervention maintains spatial integrity and cultural continuity. This approach generates a more immersive and contextually grounded experience, as visitors directly engage with original spatial configurations and material elements. Such direct engagement enhances experiential depth and emotional connection, as suggested by studies on sensory and experiential dimensions of tourism (Agapito et al., 2013; Bastiaansen et al., 2019). At the same time, this strategy may limit functional flexibility and broader integration into tourism systems, highlighting a trade-off between authenticity and adaptability.

Meanwhile, Rumah H.O.S. Tjokroaminoto applies a narrative-driven design approach, in which spatial organization is deliberately structured to guide visitor interpretation. Circulation paths, room sequencing, and exhibit placement are arranged to support storytelling and historical understanding. This highlights the role of design in structuring interpretive experiences, where meaning is produced through the interaction between spatial arrangement, narrative construction, and visitor movement. Tourism studies further suggest that memorable experiences are shaped by such structured interactions between narrative, space, and engagement (Kim, 2017; Bigné et al., 2020).

Across these cases, design intervention operates through three interconnected layers: spatial restructuring, experiential framing, and interpretive mediation. As illustrated in Figure 3, this process forms a sequential yet iterative mechanism, where spatial design shapes how experiences are structured, which in turn influences visitor perception, engagement, and interpretation.

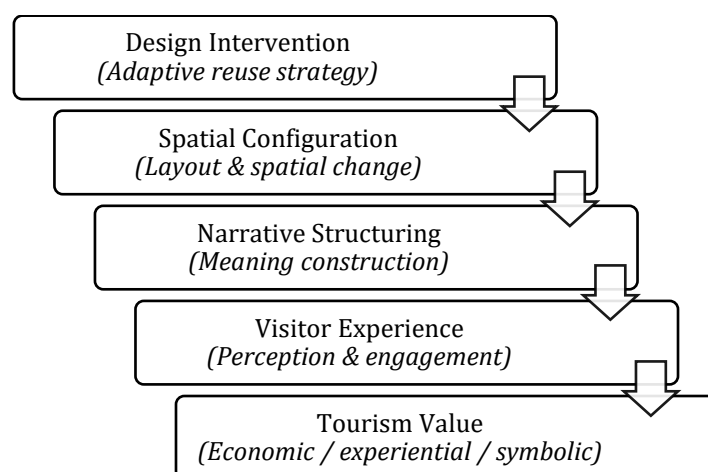


Figure 3. Design-Tourism Experiential Translation Model  
Source: Authors, 2026

Figure 3 demonstrates that tourism experience does not emerge directly from functional change, but is mediated through design processes that structure how visitors perceive and interact with space. This highlights that design plays an active role in transforming physical environments into experiential and interpretive value, rather than functioning as a passive or purely aesthetic element.

Unlike conventional adaptive reuse models that primarily focus on physical conservation or functional adaptation, the proposed experiential translation model emphasizes how design mediates visitor perception, interpretation, and engagement within tourism contexts. This framework therefore extends adaptive reuse analysis beyond architectural transformation by integrating experiential and interpretive dimensions.

However, this process is inherently characterized by trade-offs between accessibility and authenticity. Higher levels of design intervention tend to enhance functionality, visitor capacity, and accessibility, but may reduce perceived authenticity due to increased modification of original structures. Conversely, minimal intervention preserves material authenticity but may constrain usability and visitor engagement. This tension reflects a fundamental challenge in adaptive reuse, where design decisions must balance preservation objectives with experiential and functional demands (Gravagnuolo et al., 2024; Vafaie et al., 2023).

This section demonstrates that design intervention extends beyond spatial modification to actively structure how heritage is experienced and interpreted. By positioning design as a mediating mechanism, this study bridges the gap between architectural transformation and tourism experience, showing that the success of adaptive reuse depends on how effectively design translates spatial change into meaningful and engaging visitor experiences.

### **Tourism Activation and the Structuring of Value Tensions**

Adaptive reuse in heritage contexts operates not only as a transformation of physical structures, but as a mechanism through which multiple forms of tourism value are structured, negotiated, and prioritized. In this study, value structuring refers to the dynamic configuration of economic, experiential, and symbolic values within tourism contexts (Prebensen et al., 2018; Campos et al., 2018; Gallarza et al., 2011). These dimensions do not emerge independently; rather, they are relationally produced and frequently positioned in tension.

The findings demonstrate that tourism outcomes are not inherent properties of heritage buildings, but are constructed through the interaction between functional configuration, spatial design, and visitor engagement. These outcomes emerge through processes of co-creation, in which visitors actively shape meaning and experience (Prebensen et al., 2018; Campos et al., 2018). Accordingly, adaptive reuse operates as a relational system in which value is continuously negotiated rather than statically embedded.

The case of Hotel Horizon Arcadia Heritage represents a configuration characterized by strong integration into tourism infrastructure and high levels of operational efficiency. This configuration prioritizes economic performance through enhanced accessibility, service capacity, and functional optimization. However, such conditions may reduce experiential uniqueness and perceived authenticity, as heritage elements are adapted to align with standardized hospitality expectations. This indicates that the prioritization of efficiency can shift value toward economic optimization while constraining experiential differentiation (Vardopoulos et al., 2023).

In contrast, Rumah Abu Han reflects a preservation-oriented configuration in which limited intervention enables deeper experiential engagement. The retention of original spatial configurations and material authenticity allows visitors to directly interact with the historical

environment. This reinforces the view that sensory engagement and emotional connection are central to meaningful tourism experiences (Agapito et al., 2013; Bastiaansen et al., 2019). However, this approach also limits operational scalability, highlighting a structural trade-off between experiential depth and economic capacity.

Meanwhile, Rumah H.O.S. Tjokroaminoto demonstrates a narrative-driven configuration, where tourism value is structured through interpretive design. Spatial organization, circulation patterns, and exhibit sequencing are deliberately arranged to guide visitor understanding and shape engagement. This indicates that meaning is not solely derived from material authenticity, but also from how it is curated and communicated through spatial and narrative strategies. Research on memorable tourism experiences suggests that such structured interactions between narrative, space, and visitor engagement enhance perceived value (Kim, 2017; Bigné et al., 2020).

Across these cases, adaptive reuse operates through the interaction of three key dimensions: functional integration, experiential intensity, and symbolic meaning. These dimensions do not accumulate linearly but interact dynamically, generating inherent trade-offs in which the intensification of one dimension may constrain the others. This demonstrates that tourism outcomes are structured through balance rather than maximization.

These interactions are synthesized into a value tension model, as illustrated in Figure 4.

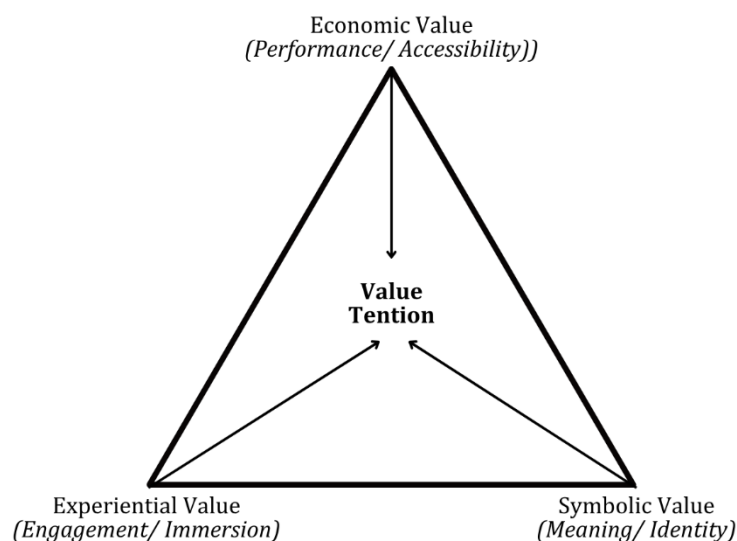


Figure 4. Value Tension Model in Adaptive Reuse  
Source: Authors, 2026

Figure 4 conceptualizes the relational dynamics between these dimensions by illustrating how increasing functional integration enhances economic performance while simultaneously constraining experiential uniqueness and perceived authenticity. Conversely, preservation-oriented approaches strengthen experiential depth and symbolic meaning but limit economic scalability and accessibility. These dynamics reflect inherent constraints within adaptive reuse processes, where multiple objectives must be continuously balanced (Vafaei et al., 2023).

Rather than representing a limitation, these tensions constitute a defining structural condition of adaptive reuse in tourism contexts. The findings suggest that successful tourism activation depends not on eliminating trade-offs, but on managing the relationships between functional efficiency, experiential quality, and cultural meaning.

From a theoretical perspective, this study contributes by conceptualizing adaptive reuse as a relational mechanism through which tourism value is continuously structured, negotiated, and reconfigured across functional, experiential, and symbolic dimensions. This perspective shifts the analytical focus from physical transformation toward the dynamic interaction between space, experience, and meaning, offering a more integrative understanding of how heritage is activated within tourism systems.

Within the context of Kota Lama Surabaya, these dynamics are further shaped by layered historical and cultural narratives, where each building embodies distinct identities and meanings. As a result, adaptive reuse not only activates tourism but actively shapes how heritage is experienced, interpreted, and valued within the destination.

### **Cross-Case Synthesis: Toward a Multi-Layered Design-Tourism Interface Framework**

Building upon the preceding analyses, this study conceptualizes adaptive reuse as an integrated and interaction-based system rather than a set of discrete processes (Vafaie et al., 2023; Geels, 2002). While the previous sections have examined functional repositioning, design mediation, and value structuring as distinct analytical dimensions, the cross-case synthesis demonstrates that these dimensions operate through ongoing interdependence, forming an integrated configuration that shapes how heritage buildings are repositioned, experienced, and valued within tourism systems.

The cross-case analysis reveals that adaptive reuse in Kota Lama Surabaya is best understood as an integrated alignment process, in which different combinations of function, design, and tourism dynamics produce differentiated outcomes. These dimensions do not operate independently; instead, their interaction determines the intensity, quality, and meaning of tourism activation. This highlights that adaptive reuse outcomes are contingent upon relational alignment rather than the optimization of individual variables.

Empirically, the four case study buildings illustrate distinct configurations of this system. Hotel Horizon Arcadia Heritage reflects strong economic integration driven by functional repositioning and supported by design strategies that prioritize usability and capacity. In contrast, Rumah Abu Han represents a preservation-oriented configuration, where design continuity and cultural authenticity are prioritized over economic integration. Rumah H.O.S. Tjokroaminoto occupies an intermediate position, where design mediates between function and narrative, enabling both accessibility and cultural interpretation. Meanwhile, Hotel Kemajuan demonstrates a stabilized configuration characterized by functional continuity and moderate integration into tourism systems.

Taken together, these configurations demonstrate that adaptive reuse outcomes are not determined by isolated variables, but by the alignment and interaction between functional repositioning, design mediation, and value structuring. This finding extends existing literature, which often treats these dimensions separately (Plevoets & van Cleempoel, 2019; Vafaie et al.,

2023), by showing that the effectiveness of adaptive reuse lies in integrated alignment rather than isolated optimization.

To synthesize these insights, this study proposes a Multi-Layered Design-Tourism Interface Framework, as illustrated in Figure 5. The framework conceptualizes adaptive reuse as a three-layered system in which functional repositioning establishes socio-economic positioning, design mediation translates this positioning into spatial and experiential configurations, and value structuring produces differentiated tourism outcomes. Importantly, these layers do not operate sequentially but continuously shape one another, generating varying levels of tourism intensity, experiential quality, and cultural representation.

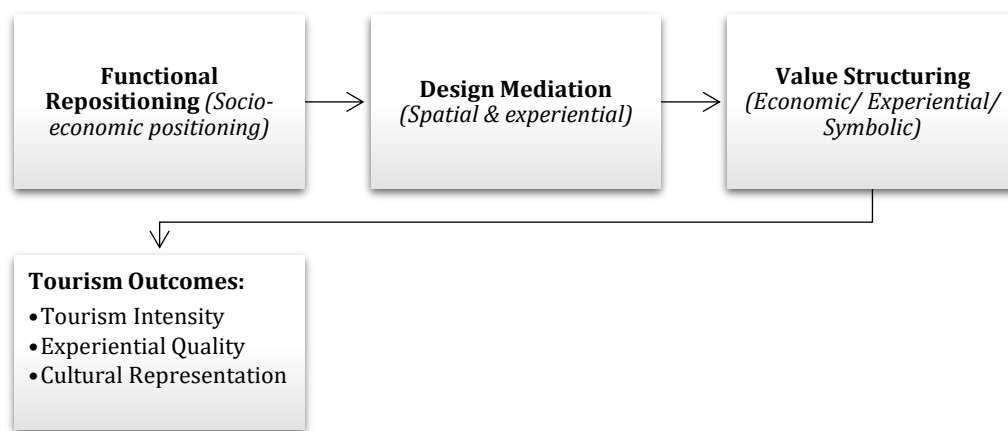


Figure 5. Multi-Layered Design-Tourism Interface Framework  
Source: Authors, 2026

Figure 5 demonstrates that tourism outcomes do not emerge directly from functional change, but are produced through the continuous interplay between repositioning, design mediation, and value structuring processes. This shifts the analytical perspective from linear transformation models toward a relational systems approach, where adaptive reuse is understood as a continuous process of interaction rather than a sequence of stages.

Unlike existing adaptive reuse frameworks that primarily emphasize conservation outcomes or functional conversion, the proposed framework integrates socio-economic positioning, spatial mediation, and experiential value structuring into a relational tourism-oriented system. This perspective highlights that tourism outcomes emerge through the interaction between function, design, and value rather than through isolated architectural transformation.

This study advances the literature through three interconnected contributions. First, it reframes adaptive reuse as an integrated socio-spatial system integrating functional, spatial, and experiential dimensions into a unified analytical framework. Second, it reconceptualizes tourism value not as a static outcome but as a process of continuous structuring and negotiation, in which economic, experiential, and symbolic values are dynamically produced and reconfigured. Third, it demonstrates the importance of cultural and contextual specificity,

showing that adaptive reuse operates as a mechanism for translating diverse cultural narratives into differentiated tourism experiences.

Crucially, the framework also demonstrates that adaptive reuse does not eliminate inherent tensions between preservation and development, authenticity and accessibility, or cultural and economic value. Instead, it operates as a mechanism of negotiation in which these tensions are continuously structured, balanced, and reconfigured through design and functional decisions.

In the context of Kota Lama Surabaya, these dynamics are further intensified by the area's multicultural character, where different buildings embody distinct historical narratives and cultural meanings. As a result, adaptive reuse not only activates tourism but also shapes the cultural positioning of the destination, influencing how heritage is interpreted, experienced, and valued within a complex urban system.

Although developed within the context of Kota Lama Surabaya, the proposed framework may serve as a transferable analytical lens for examining adaptive reuse and tourism transformation in other multicultural historic urban environments. Overall, the framework provides a conceptual bridge between design and tourism studies by offering a comprehensive explanation of how heritage buildings are transformed into active components of tourism systems. This contribution is particularly relevant for historic urban contexts in developing countries, where adaptive reuse is increasingly promoted as a strategy for tourism-led revitalization but often lacks an integrated design-tourism perspective.

## **CONCLUSION**

Adaptive reuse of heritage buildings should be understood as an integrated and interaction-based process that integrates functional repositioning, design mediation, and value structuring in shaping cultural tourism outcomes. Rather than merely transforming building functions, adaptive reuse repositions heritage assets within contemporary socio-economic and tourism systems. Within this process, design plays a critical role in translating functional change into spatial experience and cultural narrative. Tourism value, in turn, emerges through the dynamic interaction of economic, experiential, and symbolic dimensions that are inherently in tension. The findings demonstrate that different configurations of these dimensions produce varied tourism outcomes, indicating that the effectiveness of adaptive reuse depends on the alignment between function, design, and value rather than their isolated optimization. This study contributes by proposing a multi-layered design-tourism interface framework that integrates design and tourism perspectives into a unified analytical approach. Through framing adaptive reuse as a relational system, the study shifts the focus from linear transformation toward dynamic interaction, offering a more comprehensive understanding of how heritage buildings function as active components of tourism systems. From a practical perspective, these findings provide guidance for developing context-sensitive strategies that balance preservation, experiential quality, and economic viability in multicultural historic urban environments.

The results highlight the importance of aligning design decisions with both cultural values and tourism objectives to achieve sustainable and meaningful reuse outcomes. Future

research is recommended to incorporate the visitor perspective, particularly in examining how different configurations of adaptive reuse influence tourist perception, experience quality, and behavioral intentions. Such an approach would complement the present study's focus on the supply side and further enrich the understanding of adaptive reuse within tourism systems. This study is limited to selected heritage buildings within Kota Lama Surabaya and primarily reflects supply-side perspectives. Ultimately, adaptive reuse should not be understood as a linear intervention, but as a dynamic and negotiated process that continuously shapes how heritage is positioned, experienced, and valued within evolving tourism contexts.

## REFERENCES

- Agapito, D., Mendes, J.D., & Valle, P.O. (2013). Exploring the conceptualization of the sensory dimension of tourist experiences. *Journal of Destination Marketing and Management*, 2, 62-73. <https://doi.org/10.1016/j.IDMM.2013.03.001>
- Andrade, M.J., Jiménez-Morales, E., Rodríguez-Ramos, R., & Martínez-Ramírez, P. (2024). Reuse of port industrial heritage in tourist cities: Shipyards as case studies. *Frontiers of Architectural Research*, 13(1), 164-183. <https://doi.org/10.1016/j.foar.2023.09.005>
- Ashworth, G.J. (2011). Preservation, conservation and heritage: Approaches to the past in the present through the built environment. *Asian Anthropology*, 10, 1-18. <https://doi.org/10.1080/1683478X.2011.10552601>
- Bastiaansen, M., Lub, X. D., Mitas, O., Jung, T., Han, D.-I., Passos-Ascencao, M., Moilanen, T., Smit, B., & Wim, S. (2019). Emotions as core building blocks of an experience. *International Journal of Contemporary Hospitality Management*, 31(2), 651-668. <https://doi.org/10.1108/IJCHM-11-2017-0761>
- Bigné, E., Fuentes-Medina, M.L., & Morini-Marrero, S. (2020). Memorable tourist experiences versus ordinary tourist experiences analysed through user-generated content. *Journal of Hospitality and Tourism Management*, 45, 309-318. <https://doi.org/10.1016/j.JHTM.2020.08.019>
- Bullen, P.A. & Love, P.E.D. (2011). Adaptive reuse of heritage buildings. *Structural Survey*, 29, 411-421. <https://doi.org/10.1108/02630801111182439>
- Campos, A. C., Mendes, J., do Valle, P. O., & Scott, N. (2018). Co-creation of tourist experiences: A literature review. *Current Issues in Tourism*, 21(4), 369-400. <https://doi.org/10.1080/13683500.2015.1081158>
- Creswell, J.W. & Poth, C.N. (2018). *Qualitative inquiry and research design choosing among five approaches* (4th Ed.). SAGE Publications.
- Dodds, R., & Butler, R. (2019). *Overtourism: Issues, realities and solutions*. De Gruyter.
- Foster, G. (2020). Circular economy strategies for adaptive reuse of cultural heritage buildings to reduce environmental impacts. *Resources, Conservation and Recycling*, 152. <https://doi.org/10.1016/j.resconrec.2019.104507>
- Gallarza, M.G., Gil-Saura, I. & Holbrook, M.B. (2011). The value of value: Further excursions on the meaning and role of customer value. *Journal of Consumer Behaviour*, 10, 179-191. <http://dx.doi.org/10.1002/cb.328>
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8-9), 1257-1274. [https://doi.org/10.1016/S0048-7333\(02\)00062-8](https://doi.org/10.1016/S0048-7333(02)00062-8)
- Ghida, D.B. (2024). Revitalizing urban spaces: Ten key lessons from the “Viaduc des arts” adaptive reuse and placemaking. *Frontiers of Architectural Research*, 13(5), 1095-1112. <https://doi.org/10.1016/j.foar.2024.03.011>
- Gravagnuolo, A., Angrisano, M., Bosone, M., Buglione, F., de Toro, P., & Girard, F. (2024). Participatory evaluation of cultural heritage adaptive reuse interventions in the circular economy perspective: A case study of historic buildings in Salerno (Italy). *Journal of Urban Management*, 13(1), 107-139. <https://doi.org/10.1016/j.jum.2023.12.002>
- Gravari-Barbas, M., & Guinand, S. (2017). *Tourism and gentrification in contemporary metropolises: International perspectives*. Routledge. <https://doi.org/10.4324/9781315629759>
- Kaya, D.I., Dane, G., Pintossi, N., & Koot, C.A.M. (2021). Subjective circularity performance analysis of adaptive heritage reuse practices in the Netherlands. *Sustainable Cities and Society*, 70, 1-14. <https://doi.org/10.1016/j.scs.2021.102869>
- Kim, J. H. (2017). The impact of memorable tourism experiences on loyalty behaviors: The mediating effects of destination image and satisfaction. *Journal of Travel Research*, 57(7), 856-870. <https://doi.org/10.1177/0047287517721369>

- Langston, C. (2018). *Sustainable practices in the built environment* (2nd ed.). Routledge.
- Misirlisoy, D., & Günçe, K. (2016). Adaptive reuse strategies for heritage buildings: A holistic approach. *Sustainable Cities and Society*, 26, 91-98. <https://doi.org/10.1016/j.scs.2016.05.017>
- Neuhofer, B., Buhalis, D. & Ladkin, A. (2015) Smart technologies for personalized experiences: A case study in the hospitality domain. *Electronic Markets*, 25, 243-254. <https://doi.org/10.1007/s12525-015-0182-1>
- Pintossi, N., Kaya, I.K., & Roders, A.P. (2023). Cultural heritage adaptive reuse in Salerno: Challenges and solutions. *City, Culture and Society*, 136, 1-16. <https://doi.org/10.1016/j.ccs.2023.100505>
- Pintossi, N., Kaya, I.K., van Wesemael, P., & Roders, A.P. (2023). Challenges of cultural heritage adaptive reuse: A stakeholders-based comparative study in three European cities. *Habitat International*, 136, 1-16. <https://doi.org/10.1016/j.habitatint.2023.102807>
- Plevoets, B., & van Cleempoel, K. (2019). Adaptive reuse as a strategy towards conservation of cultural heritage: A literature review. In *Adaptive reuse of the built heritage* (pp. 13-33). Routledge.
- Prebensen, N. K., Chen, J. S., & Uysal, M. (2018). *Creating experience value in tourism*. CABI.
- Richards, G. (2021). *Rethinking cultural tourism*. Edward Elgar Publishing.
- Rudan, E. (2023). Circular economy of cultural heritage-possibility to create a new tourism product through adaptive reuse. *Journal of Risk and Financial Management*, 16(3), 196. <https://doi.org/10.3390/jrfm16030196>
- Song, J., Chen, J., Yang, X., & Zhu, Y. (2024). Research on adaptive reuse strategy of industrial heritage based on the method of social network. *Land*, 13(3), 383. <https://doi.org/10.3390/land13030383>
- Spina, L. D. (2021). Cultural heritage: A hybrid framework for ranking adaptive reuse strategies. *Buildings*, 11(3), 132. <https://doi.org/10.3390/buildings11030132>
- Spina, L., D. & Giorno, C. (2021). Cultural landscapes: A multi-stakeholder methodological approach to support widespread and shared tourism development strategies. *Sustainability*, 13(13), 7175. <https://doi.org/10.3390/su13137175>
- Stylidis, D. (2018). Residents' place image: A cluster analysis and its links to place attachment and support for tourism. *Journal of Sustainable Tourism*, 26, 1007-1026. <https://doi.org/10.1080/09669582.2018.1435668>
- Tan, J., Xu, L., & Hutter, A. (2026). Post-occupancy evaluation of waterfront industrial heritage reuse in China: Assessing satisfaction and importance on Jingzhou Yang Pier historical area. *Journal of Urban Management*, 1-13. <https://doi.org/10.1016/j.jum.2026.01.005>
- Timothy, D. J. (2011). *Cultural heritage and tourism: An introduction* (Vol. 4). Channel View Publications.
- Tussyadiah, I. P. (2020). A review of research into automation in tourism: Launching the Annals of Tourism Research curated collection on artificial intelligence and robotics in tourism. *Annals of Tourism Research*, 81. <https://doi.org/10.1016/j.annals.2020.102883>
- UNWTO. (2023). *Tourism and cultural heritage: A review of global practices*. World Tourism Organization.
- Vafaie, F., Remøy, H., & Gruis, V. (2023). Adaptive reuse of heritage buildings: A systematic literature review of success factors. *Habitat International*, 142, 102926. <https://doi.org/10.1016/j.habitatint.2023.102926>
- van Laar, B., Greco, A., Remøy, H., & Gruis, V. (2024). What matters when? – An integrative literature review on decision criteria in different stages of the adaptive reuse process. *Developments in the Built Environment*, 18, 1-31. <https://doi.org/10.1016/j.dibe.2024.100439>
- Vardopoulos, I., Giannopoulos, K., Papaefthymiou, E., Temponera, E., Chatzithanasis, G., Goussia-Rizou, M., Karymbalis, E., Michalakelis, C., Tsartas, P., & Sdrali, D. (2023). Urban buildings sustainable adaptive reuse into tourism accommodation establishments: a SOAR analysis. *Discover Sustainability*, 4 (50). <https://doi.org/10.1007/s43621-023-00166-2>
- Vargo, S.L., & Lusch, R.F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36, 1-10. <https://doi.org/10.1007/s11747-007-0069-6>
- Waterton, E., & Watson, S. (2015). *The Palgrave handbook of contemporary heritage research*. Palgrave Macmillan. <https://doi.org/10.1057/9781137293565>
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.