



Exploring Indonesia's urban heritage through movement: a literature review on physical activity, recreation, and tourism management

Explorando el patrimonio urbano de Indonesia a través del movimiento: una revisión de la literatura sobre actividad física, recreación y gestión del turismo

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Abstract

Introduction: Indonesia's urban heritage reflects a complex narrative of colonialism, cultural identity, and modern transformation. In recent years, physical activity and recreation have been recognized as dynamic tools to engage with and reinterpret urban heritage.

Objective: This study aims to explore how movement-based engagement—such as walking tours, heritage marathons, and cycling—enhances the understanding, preservation, and revitalization of Indonesia's urban heritage.

Methodology: A systematic literature review (SLR) was conducted using PRISMA guidelines. Studies from 2019 to 2025 were sourced from Scopus, Web of Science, SAGE Journals, Taylor & Francis, and Google Scholar, with 13 articles selected for full analysis.

Discussion: The review highlights that movement-based heritage engagement supports embodied learning, tourism development, and inclusive urban planning. Activities like guided walks or heritage marathons deepen public awareness of historical spaces and contribute to place identity. Additionally, adaptive reuse of heritage spaces for recreation strengthens community participation and economic revitalization.

Conclusion: Integrating physical activity within heritage tourism enhances both health and cultural sustainability. This model promotes interaction with historical environments and supports inclusive heritage preservation in Indonesian cities.

Keywords

Urban heritage, physical activity, recreation, heritage tourism, Indonesia.

Resumen

Introducción: El patrimonio urbano de Indonesia refleja una narrativa compleja de colonialismo, identidad cultural y transformación moderna. En los últimos años, la actividad física y la recreación se han reconocido como herramientas dinámicas para reinterpretar y revalorizar el patrimonio urbano.

Objetivo: Este estudio tiene como objetivo explorar cómo la participación basada en el movimiento—como caminatas guiadas, maratones culturales y ciclismo—mejora la comprensión, conservación y revitalización del patrimonio urbano en Indonesia.

Metodología: Se realizó una revisión sistemática de la literatura (SLR) siguiendo las directrices PRISMA. Se revisaron estudios publicados entre 2019 y 2025 en bases como Scopus, Web of Science, SAGE Journals, Taylor & Francis y Google Scholar, seleccionando 13 artículos para análisis completo.

Discusión: Los resultados muestran que el compromiso con el patrimonio a través del movimiento promueve el aprendizaje encarnado, el desarrollo del turismo y una planificación urbana más inclusiva. Actividades como caminatas patrimoniales o maratones culturales fortalecen la conciencia pública y la identidad del lugar. La reutilización adaptativa de espacios patrimoniales fomenta la participación comunitaria y el desarrollo económico.

Conclusión: La integración de la actividad física en el turismo patrimonial mejora tanto la salud como la sostenibilidad cultural, promoviendo una conservación más inclusiva del patrimonio urbano en las ciudades indonesias.

Palabras clave

Patrimonio urbano, actividad física, recreación, turismo patrimonial, Indonesia.

Introduction

Indonesia's urban heritage encompassing colonial-era cities, cultural districts, historic trade ports, and diverse community settlements is a vital cultural asset that contributes to national identity, economic development, social cohesion, and education (Ariwibowo & Fibiona, 2025; Damanik et al., 2021). As urbanization accelerates, the challenge of maintaining a balance between modernization and heritage preservation has become increasingly complex. Contemporary urban frameworks emphasize the integration of cultural heritage into sustainable city planning (Andujar, 2020; Wonglangka & Han, 2024), advocating for adaptive approaches such as "heritage assemblages" that view heritage as a dynamic, lived landscape (Andujar, 2020).

In this context, physical activity and recreation including walking tours, heritage runs, and cycling have emerged as innovative strategies to reinterpret and revitalize historical spaces. These movement-based engagements not only promote physical health but also offer embodied learning experiences, deepen emotional connections to place, and foster appreciation for heritage (Damanik et al., 2021; Saginatar et al., 2024). Such activities are being adopted in urban settings like Yogyakarta, Jakarta, and Semarang, where cultural events and heritage zones are increasingly designed to promote pedestrian mobility, civic participation, and inclusive tourism. However, despite its growing relevance, academic discussion in Indonesia remains fragmented. Current studies on urban heritage, tourism, and physical activity tend to operate in disciplinary silos resulting in missed opportunities for integrated strategies that address health, tourism, and cultural conservation simultaneously (Geçikli et al., 2024; Suprapti, 2021).

Meanwhile, the increasing use of heritage sites for active tourism demands attention to urban morphology, especially the availability of walkable public spaces and recreational infrastructure (Fathi et al., 2020). Cities like Surabaya and Semarang have begun to utilize heritage spaces for outdoor recreation and cultural tourism, with adaptive reuse projects turning historical buildings into multifunctional public assets (Drianda et al., 2021; Maulina et al., 2023). Moreover, digital engagement through platforms like Instagram and local tourism apps has further reshaped public narratives around heritage. While these platforms offer visibility, they also risk emphasizing colonial aesthetics while marginalizing local or indigenous expressions (Barnes, 2022; Rahmawati et al., 2024), underscoring the need for inclusive and critically designed digital heritage strategies.

Finally, there is a growing awareness that movement-based engagement with heritage can support urban sustainability, strengthen community identity, and enhance economic opportunities through tourism. Yet, research is still lacking on how these practices can be institutionalized and scaled across diverse urban contexts in Indonesia, particularly beyond Java.

Research Objective

This study aims to explore how physical activity and recreation can serve as strategic tools to reinterpret, preserve, and revitalize Indonesia's urban heritage.

Guiding Questions

How is movement-based engagement applied within heritage tourism and urban planning in Indonesia?

- What benefits and challenges are associated with integrating physical activity into heritage preservation efforts?
- How can these practices contribute to more inclusive, sustainable models of heritage tourism in Indonesian cities?

By synthesizing current research across disciplines, this literature review maps out the connections between urban heritage, movement-based recreation, and tourism management. It seeks to inform policy-makers, urban planners, and heritage professionals on how dynamic, participatory engagement with history can foster more sustainable, equitable, and vibrant urban futures.

Method

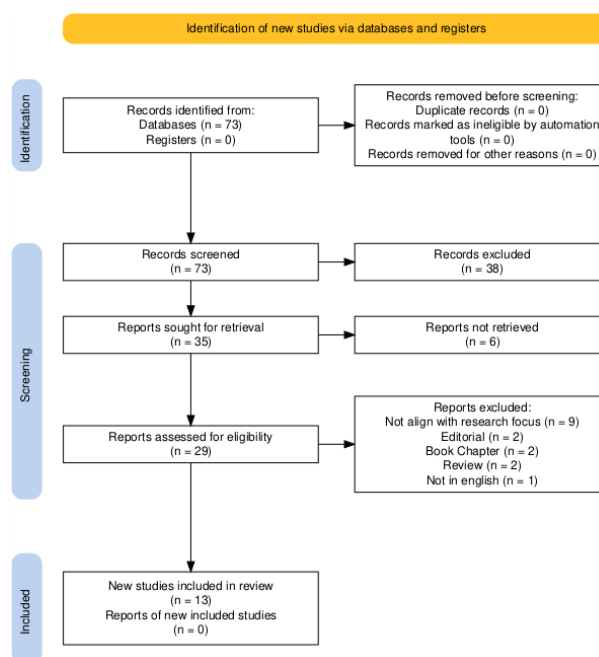
This study employed a Systematic Literature Review (SLR) approach, following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 guidelines to ensure methodological rigor, transparency, and replicability. The primary objective of this review was to synthesize peer-reviewed literature that explores the intersections of urban heritage, physical activity, recreation, and tourism management in Indonesia, with particular emphasis on movement-based engagement such as walking tours, heritage cycling, and cultural marathons in historic urban environments.

A comprehensive and structured search was conducted across five academic databases: Scopus, Web of Science, Taylor & Francis Online, SAGE Journals, and Google Scholar. The review targeted scholarly articles published between 2019 and 2025, focusing on both conceptual frameworks and empirical evidence relevant to the revitalization and utilization of urban heritage spaces through physical and recreational activities.

To identify relevant studies, a combination of Boolean operators and controlled vocabulary was used. The search terms included: “urban heritage in Indonesia”, “heritage tourism and physical activity in Indonesia”, “cultural heritage and recreation in Indonesia”, “walking tours in historic districts in Indonesia”, “cycling heritage routes Indonesia”, “urban parks and historical preservation in Indonesia”, “adaptive reuse for tourism in Indonesia”, and “movement-based heritage engagement in Indonesia.”

Only articles written in English (with English abstracts) and published in peer-reviewed journals were included to ensure the academic quality and relevance of the selected literature. The study excluded publications focusing solely on architectural conservation without a physical engagement component, or those unrelated to the Indonesian context.

Figure 1. PRISMA 2020 Flow Diagram Illustrating the Selection Process of Studies Included in the Systematic Review



The screening process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 guidelines to ensure a structured and transparent selection of studies. A total of 73 records were initially identified through electronic database searches. No additional records were obtained from registers, and no records were removed prior to screening due to duplication or automation filtering.

During the screening phase, all 73 records were reviewed based on title and abstract, resulting in 38 records excluded due to misalignment with the study's aims. 35 reports were then sought for full-text retrieval, but 6 could not be retrieved due to access issues or incomplete documentation.

Out of the 29 reports assessed for eligibility, 16 were excluded for the following reasons: 9 did not align with the research focus, 2 were editorial articles, 2 were book chapters, 2 were literature reviews, and 1 was not written in English. Ultimately, 13 studies met all inclusion criteria and were included in the systematic literature review.

Table 1. Eligibility Criteria for Study Selection

Criteria Type	Description
Inclusion Criteria	Published between 2019 and 2025 in peer-reviewed journals
	Written in English
	Focused on urban heritage, physical activity, recreation, or tourism management in Indonesian contexts
	Addressed the integration of movement-based engagement (e.g., walking, cycling, recreational events) in relation to cultural or historical sites
Exclusion Criteria	Explored community participation, heritage revitalization, or spatial planning connected to physical or recreational use of heritage zones
	Studies focusing solely on architecture or conservation engineering without connection to physical activity or recreation
	Articles that discuss tourism without referencing urban heritage or physical engagement
	Non-peer-reviewed literature (e.g., blogs, newspaper articles, opinion essays)
	Studies not written in English
	Articles with focus outside urban or heritage-based contexts in Indonesia

The data extracted from the selected articles were analyzed using a thematic synthesis approach that integrated both deductive and inductive coding strategies. Three researchers independently coded the data, and inter-coder reliability was ensured through an iterative process of cross-checking and discussion. The coding process began with open coding to identify recurring concepts, followed by axial coding to group related subthemes, and culminated in selective coding that generated overarching themes such as typologies of movement-based engagement, the use of physical activity as a tool for heritage interpretation, the role of recreation in bridging conservation with public use, and strategies for managing heritage tourism. To facilitate organization and visualization of these thematic relationships, a qualitative data analysis tool was employed, with any discrepancies resolved through team consensus. As this literature review was based exclusively on open-access and academic database materials, no ethical clearance was required. All included studies adhered to proper academic and citation standards.

Results

Overview Selected Studies

The thirteen selected studies offer a multidimensional view of how urban heritage is conceptualized, managed, and contested within the contemporary Indonesian context. These works collectively emphasize that urban heritage is not merely a remnant of the past but a living, evolving component of urban life, intersecting with issues of identity, power, sustainability, and socio-economic development. Across cities such as Yogyakarta, Semarang, Medan, Surabaya, Surakarta, Siantar, and Sawahlunto, the studies demonstrate a shift from traditional preservationist models to more integrative, critical, and interdisciplinary approaches.

A significant subject arising from this literature is the dynamic interplay between historic preservation and urban growth. Ariwibowo and Fibiona (2025) demonstrate the integration of historical preservation and contemporary urban requirements in Yogyakarta's urban heritage policy via participatory governance, whereas (Rukayah et al., 2020) emphasize the adaptive reuse of the Solo post office as a means for economic revitalization and spatial optimization. Likewise, (Winata et al., 2023) and (Ponirin et al., 2021) highlight the potential of heritage buildings and districts in Medan for urban tourist development, suggesting organized reuse and zoning frameworks to include heritage assets into tourism economies.

The ideological and symbolic significance of heritage also features strongly in the reviewed literature. Siregar (2023) explores how Yogyakarta's colonial and traditional urban structures were historically

used to project political hegemony, and how contemporary reinterpretations now serve to reclaim cultural identity. In a related study, (Siregar & Rukmi, 2020) analyze the disconnect between official conservation policies and public perceptions, arguing for greater public involvement in shaping the meaning and value of heritage. Yapp's (2023) ethnographic research in Semarang provides a compelling account of how colonial modernity, exemplified by the Pasar Johar marketplace, is being reclaimed by activists and communities to critique present-day urban inequalities, while simultaneously risking the reproduction of colonial logics of "progress."

The intersection between urban heritage and media is explored by (Rahmawati et al., 2024a), who analyze Instagram's role in shaping visual narratives around heritage tourism in Surabaya. Their findings suggest that social media platforms create selective representations that often emphasize colonial aesthetics while marginalizing indigenous cultural elements, revealing the need for more inclusive and critical digital heritage strategies.

Ecological and geological perspectives on heritage are also gaining relevance. Suhardono et al. (2024) quantitatively assess the ecological effectiveness of urban parks in Surakarta, emphasizing their role in climate regulation and biodiversity conservation. Meanwhile, (Hadian et al., 2023) take a geological lens to heritage, examining the foundational materials of Sawahlunto's historical architecture and highlighting the overlooked significance of urban geological heritage in heritage discourse and planning.

From a methodological standpoint, the studies reviewed employ a rich array of qualitative, quantitative, ethnographic, and geospatial techniques, reflecting the interdisciplinary nature of heritage studies. For instance, (Dameria et al., 2023) use statistical correlation to assess the relationship between visitors' sense of place and conservation intentions in Semarang, revealing the limited impact of emotional attachment on behavior due to the commodified nature of the tourist experience. Likewise, (Saginatari et al., 2024) adopt assemblage thinking to conceptualize architectural porosity and socio-spatial transformations in Semarang Old Town, emphasizing the entanglement of materiality, ecology, and informal inhabitation in heritage areas.

Overall, these studies collectively underscore the need for a more inclusive, reflexive, and forward-looking approach to heritage management in Indonesia. Heritage should not be seen as static or confined to aesthetic and historical values but must be reinterpreted as a multidimensional asset capable of fostering identity, environmental sustainability, public participation, and social justice. The challenge for policymakers, planners, and scholars is to reconcile memory with innovation and conservation with change recognizing that heritage is not only about the past but also about envisioning more equitable and resilient urban futures.

Table 2. Overview of Selected Studies

No	Author and Year	Focus	Methodology	Key Findings
1	(Ariwibowo & Fibiona, 2025)	Sustainable Urban Cultural Heritage Policy in Yogyakarta	Qualitative Research (Focus Group Discussions, Interviews, Policy Analysis, On-site Observations, Media Content Analysis)	Yogyakarta's urban heritage policy reflects a balanced integration of cultural preservation with modern development. The city emphasizes community and government collaboration in maintaining heritage identity, offering a model for other Indonesian cities.
2	(Rukayah et al., 2020)	Adaptive Reuse of Heritage Buildings (Solo Post Office)	Architectural and Urban Design Analysis; Building Re-documentation	Identified potential for adaptive reuse of unused spaces in historical post office buildings to support commercial functions. The study highlights the integration of heritage conservation with urban development and economic revitalization in historic Indonesian cities.
3	(Dameria et al., 2023)	Sense of Place and Conservation Behavior (Semarang Old Town)	Quantitative Study; Somers' D Correlation; Descriptive Statistics	Found weak correlations between sense of place dimensions and conservation behavioral intention due to the tourism-oriented, material-based context and casual visitor profiles. Recommends more value-driven heritage policies to foster conservation-minded tourism.
4	(Winata et al., 2023)	Adaptive Reuse Guidelines for Warenhuus Medan and Urban Heritage	Qualitative Case Study; Building Adaptation Theory; Comparative Case Analysis	Developed adaptive reuse and urban regeneration guidelines for revitalizing Warenhuus Medan and its historic district. Emphasized legal, cultural, and spatial factors in heritage building adaptation and proposed structured guidelines for Medan's heritage development.
5	(Saginatari et al., 2024)	Architectural Porosity and Change of Inhabitation (Semarang Old Town)	Exploratory Qualitative Method; Assemblage Thinking; Case Study	Introduced the concept of architectural porosity to examine material and socio-spatial transformations in revitalized urban heritage. Found that revitalization should consider informal, ecological, and non-material dimensions often excluded in conventional urban heritage planning.



6	(Damanik et al., 2021a)	Cultural Heritage Buildings for Urban Tourism (Siantar)	Qualitative Study; Pragmatic Tourism Paradigm; Thematic Analysis of Colonial Archives and Field Data	Highlighted the underutilization of heritage buildings in Siantar as tourism assets. Proposed a framework for turning historical architecture and plantation heritage into urban tourism experiences that reflect the colonial past, support public space creation, and foster economic development.
7	(Siregar, 2019)	Ideological Meaning and Heritage Symbolism (Yogyakarta)	Literature-Based Study; Conceptual Analysis Using Meaning Production Framework	Analyzed how traditional and colonial heritage buildings in Yogyakarta reflect historical ideological conflicts. Demonstrated how urban structures were once tools of political hegemony and how shifting societal contexts have transformed these symbols into shared cultural heritage.
8	(Rahmawati et al., 2024a)	Social Media and Visual Heritage Representation (Surabaya)	Qualitative Content Analysis; Critical Visual Discourse; Instagram Data Analysis	Analyzed #surabayaheritage posts on Instagram and found that colonial architecture dominates visual heritage narratives. Revealed how Instagram aesthetics shape selective and often exclusionary representations of urban heritage, marginalizing non-colonial cultural narratives.
9	(Suhardono et al., 2024)	Ecological Effectiveness of Urban Parks (Surakarta)	Quantitative Evaluation; Ecological Function Indicators; Field Assessment	Assessed the ecological functions of urban parks in Surakarta, identifying Lansia Park as the most effective. Provided a framework for evaluating green spaces in terms of biodiversity, climate regulation, and air purification to guide urban ecological planning.
10	(Siregar & Rukmi, 2020)	Reconciling Public and Government Perspectives on Heritage (Yogyakarta)	Qualitative Study; Document and Media Analysis; In-depth Interviews	Explored the disconnect between government-led conservation practices and citizens' values. Emphasized the need to involve the public in urban heritage management to preserve cultural authenticity and respond to social changes and urban development pressures.
11	(Hadian et al., 2023)	Urban Geology and Heritage Foundations (Sawahlunto)	Mixed Methods; Geological Mapping; Heritage Structure Documentation; Content Analysis	Identified the geological origins and material composition of heritage buildings in Sawahlunto. Demonstrated how local sedimentary rock facies supported heritage construction and argued for the recognition of urban geological heritage as part of conservation and development strategies.
12	(Ponirin et al., 2021)	Mapping Urban Heritage Tourism Potential (Medan)	Qualitative Study; Tourism Anthropology; Site-Based Thematic Observation	Mapped tourism potential across key heritage segments in Medan. Found that revitalization of remaining colonial structures can support education, recreation, and identity-building. Proposed three heritage zones as anchors for tourism development and heritage appreciation.
13	(Yapp, 2020)	Colonial Modernity as Contemporary Urban Heritage (Semarang)	Ethnographic Study; Architectural Anthropology; Critical Urban Heritage Discourse	Studied Pasar Johar in Semarang as a site where colonial modernity is reinterpreted as urban heritage. Argued that while this reinterpretation enables critique of present-day urban politics, it also risks perpetuating colonial-era ideas of progress and modern subjectivity.

Typologies of Movement-Based Engagement with Urban Heritage

Movement-oriented interaction with urban heritage in Indonesia represents a significant convergence of physical activity, recreation, and organized tourism experiences. Walking tours, cultural marathons, and heritage cycling are key methods that facilitate this involvement, activating urban environments and enhancing the narratives related to architectural and cultural importance. In Indonesian cities, where urban heritage frequently embodies significant narratives of colonialism, culture, and history, these activities promote enhanced engagement with the community's past. Cities such as Yogyakarta and Jakarta offer excellent settings for exploration, containing various historical landmarks that validate Indonesia's unique cultural legacy (Damanik et al., 2021; Ponirin et al., 2021).

Walking tours provide an accessible and engaging means of experiencing urban heritage, enabling participants to immerse themselves more deeply in the sensory dimensions of historical settings. As visitors explore regions such as Kota Tua in Jakarta, they acquire profound insights into the distinctive histories linked to each edifice. Studies indicate that walking improves the contextualization of cultural and ecological values, rendering it a potent approach for heritage education (Shi et al., 2023; Siregar, 2019). Walking allows tourists to admire historical architecture while also facilitating physical activity, thereby enhancing health and well-being, which are essential components of modern urban living. Moreover, grassroots efforts frequently conduct these excursions, enabling local populations to convey their narratives and viewpoints, hence enhancing visitors' comprehension of the culture (Chauhan & Anand, 2023; Siregar & Rukmi, 2020).

Cultural marathons provide a novel method of movement-oriented interaction that integrates physical activity with urban heritage. Such events frequently draw people from varied backgrounds, promoting inclusivity and community cohesion while emphasizing notable cultural monuments along the route. Marathons can be structured to traverse heritage sites in places such as Bandung or Surabaya, converting standard athletic events into immersive experiences that honor urban history. Marathons enhance

the identity of historical locations, emphasize their significance in modern society, and cultivate civic pride among local inhabitants (Damanik et al., 2021; Opfermann, 2021; Rahmawati et al., 2024).

Heritage cycling is another mode that deserves highlighting, increasingly in cities with suitable roads and historical significance. Cycling journeys can join heritage locations and help people to enjoy nature, culture and heritage. Because the pace of cycling is not very high, public parks, riversides, and old districts can be explored, where cyclists can see and communicate with the community (Huss, 2025; Suhardono et al., 2024). These cycling experiences unveil the building and monument history that we are riding past and reinforce the importance of place-based conservation in urban sites (Shi et al., 2023; Winata et al., 2023).

Adding Physical activity to heritage interpretation enlivens tourist routes with action and participation at the visitors' level. This process promotes the establishment of walkway and cyclepath networks and connecting sites of interest to public places, which attract the local community. In Semarang, optimisation of the connections between urban parks and heritage districts serve as an indication of a more holistic urban planning approach that benefits both tourists and local citizens (Ormond & Vietti, 2022; Saginatari et al., 2024). This interconnectivity creates a dynamic space that helps to move forward, promotes health and rejuvenates ignored historic areas.

In Indonesia there are urban locales that can and do demonstrate the possible for movement-based heritage engagement. Old city enclaves with narrow alleys, like those found in the historic districts of Jakarta and Yogyakarta, serve as a stage for living the urban heritage through body practice. Open spaces are places, so to travel, such as parks at Ciliwung riverside in Jakarta, from Ciliwung riverside in Jakarta, from Ciliwung riverside in Jakarta, from the Jakarta's bordering Ciliwung rivers which also displays a natural beauty and a cultural meaning. Furthermore, the riverbanks usually represent impromptu meeting places for events and social activities that are key to strengthen social and cultural community identity (Ariwibowo & Fibiona, 2025; Chauhan & Anand, 2023).

Policy frameworks that recognize the significance of movement-oriented heritage experiences can enhance urban tourism and invigorate urban economies. When investing in infrastructure, emphasize enhancing heritage sites with facilities that promote walking and cycling, thus fostering more inclusive and accessible cities. Best practices from around the globe can be replicated, although the challenge lies in adapting new strategies to the distinct social and cultural contexts of historic cities (Damanik et al., 2021; Rukayah et al., 2020).

This convergence of mobility, urban history, and tourism in Indonesia offers a diverse array of experiences for both visitors and locals. By protecting and advancing these modalities, policymakers, planners, developers, and tourism experts may enhance the vitality of historical sites through health-oriented strategies in heritage tourism. This combination not only supports the narrative of Indonesian urban heritage but also fosters sustainable tourism that is culturally significant and physically engaging (Patria et al., 2023; Truman & Springgay, 2019).

Key Functions of Physical Activity in Heritage Contexts

Physicality serves as a means to stimulate visitor engagement with Indonesia's urban legacy, fostering an embodied experience that results in enduring memories and personal narratives. Circuit activities, historical games, strolling explorations, cultural marathons, and poetrybike are activities that innovatively provide an understanding of educational content grounded in historical and cultural contexts, integrated with cross-modal experience of the environment. Providing a physical experience at a heritage site immerses tourists emotionally in the destination, thereby intertwining the physical and mental aspects of their visit, which subsequently influences their experience and perception of Indonesia's rich and diverse culture (Andari, 2019; Saginatari et al., 2024).

An additional crucial element of engagement is the advancement of heritage education and awareness via dynamic participatory initiatives. School-based heritage runs and community health activities at heritage places provide possibilities for active engagement with the community and children regarding history. These activities engage the next generation while enhancing awareness and respect of local culture and history. Heritage runs in Yogyakarta are meticulously crafted to incorporate educational com-

ponents, allowing participants to engage with local narratives and gain knowledge of the city's rich heritage through physical activity (Ariwibowo & Fibiona, 2025; Salim & Rahman, 2022). This dual narrative emphasizes the importance of history and fosters a sense of communal pride.

Encouraging repeat visits and prolonged stays in urban heritage areas is recognized as a significant advantage of integrating physical exercise into cultural experiences. When tourists engage in outdoor activities, they often develop a connection with the location and become increasingly enthusiastic about returning to explore further. Studies indicate that individuals participating in guided cycling tours of cultural landmarks in cities like Jakarta and Semarang have encountered these locations in unique, non-Western manners, revealing unexpected insights and local narratives that motivate them to extend their visits and consider future returns (Cholil et al., 2024; Rahmawati et al., 2024). This demonstrates that active engagement with urban heritage transforms ephemeral experiences into enduring memories, hence enhancing the appeal of historical tourism locations.

The spatial framework of urban heritage sites was a crucial determinant of the effectiveness of mobility-oriented engagement. This may manifest as urban environments engineered to encourage mobility (such as riverside promenades, public parks, and revitalized historical districts), serving as ideal locations for physical activities that allow tourists to engage with cultural artifacts. In cities like Bandung, the development of pedestrian-friendly pathways to heritage sites enhances accessibility and fosters spontaneous interactions between residents and visitors (Asmelash & Kumar, 2019; Suhardono et al., 2024; Winata et al., 2023). An opportunity for such activities prompts the diverse facets of life to reveal that the essence of the community resonates with its culture, serving as a reminder that the legacy of our cities must, now more than ever, be accessible to all.

A crucial element in augmenting public involvement with heritage may involve providing multimodal experiences. Immersive activities, such as guided culinary excursions in local markets or art walks in historic districts, will enable tourists to engage more profoundly with local culture and history. A bicycle tour around heritage sites, with visits to local food sellers, would not only promote local cuisine but also provide sensory experiences—tasting, seeing, and hearing—that will boost visitor satisfaction and comprehension of urban heritage (Damanik et al., 2021; Jokar et al., 2024).

The traditional practice of social interaction significantly contributes to this movement-induced stimulation. Events like neighborhood festivals, community health runs, and collaborative clean-ups at historical sites have effectively motivated local communities to engage actively in the preservation of local heritage while simultaneously fostering a culture of health and inclusivity (Prayuda et al., 2020; Siregar & Rukmi, 2020). These projects cultivate social networks and a sense of community 'ownership' and management of heritage sites, empowering the community with a voice and a stake in the preservation of local heritage.

Incorporating chances for physical mobility into the ethnographic interpretation of heritage sites offers a novel approach to storytelling and educating community members about the site's significance. This initiative promotes the dissemination of both tangible and intangible cultural assets while cultivating mindfulness and a sense of location. When entire cities are structured to facilitate movement and recognize the capacity of mobility to enhance educational outreach, they can also formulate strategies to employ physical activity as a vehicle for cultural storytelling among varied audiences (Andari, 2019; Ponirrin et al., 2021).

The integration of physical exercise into Indonesia's urban cultural sites represents a revolutionary strategy for tourism and community engagement. Through interventions that actively involve tourists and encourage their participation, a renewed pride in their cultural legacy can be fostered, along with an enhanced sense of responsibility to maintain it for future generations. This multifaceted strategy may revitalize heritage tourism and enhance the overall health and wellbeing of communities, serving as a countermeasure to years of neglect in wellbeing-oriented infrastructure – a compelling testament to the sociocultural impact of such initiatives (Eladway et al., 2020; Yapp, 2020).

Recreation as a Bridge Between Heritage Preservation and Public Use

In Indonesia, recreation connects heritage preservation and public accessibility, yielding advantages that extend beyond mere leisure activities. Parks, squares, revitalized piers, and promenades have been



transformed into multifunctional spaces: some conserve heritage, while others facilitate community engagement and recreation. These spaces preserve elements of Indonesia's cultural history and facilitate personal experiences for both local residents and visitors through various physical and movement activities. Initiatives aimed at enhancing public spaces, such as the revitalization of Jakarta's historical district and the creation of green zones, have demonstrated efficacy in attracting both local inhabitants and tourists, transforming historical sites into community hubs (Ponirin et al., 2021; Suhardono et al., 2024).

The role of recreation to facilitating access to heritage areas cannot be overstated. Engagement in cultural destinations eliminates existing barriers that may have marginalized individuals. Close-range marathon running or group yoga in heritage cities such as Yogyakarta fosters inclusion and encourages citizen engagement in many community activities. This public utilization highlights the significance of these spaces, serving as historical sites and active elements in individuals' daily experiences, thereby fostering a connection to their cultural heritage among diverse origins (Ariwibowo & Fibiona, 2025).

Adaptive reuse of heritage buildings is a prevalent approach aimed at enhancing their utility while preserving their historical importance. Several Indonesian cities have repurposed historic buildings into recreational centers for cultural acts. The transformation of heritage assets in Semarang into cultural spaces has significantly enhanced sustainable heritage management, with cultural relevance and functionality for contemporary society being important concerns (Saginatari et al., 2024; Winata et al., 2023).

Moreover, adaptive reuse aligns with broader urban planning goals aimed at improving quality of life amid rising urbanization. Mixed-use sports and cultural facilities in historic districts amalgamate many forms of cultural participation. Heritage buildings have become significant centers for community indoor physical activities, as well as artistic and cultural endeavors, hence enhancing inhabitants' loyalty to their locality (Rukayah et al., 2020; Siregar & Rukmi, 2020).

The utilization of heritage areas for organized recreational activities enhances their attractiveness to tourists. Heritage squares are frequently utilized for seasonal events and festivals, attracting both locals and visitors. Cultural Practices and Celebrations "Yogyakarta International Heritage Walk" The Jogja International Heritage Walk and similar activities are organized to promote physical activity while safeguarding heritage. Participants in these activities contribute directly and indirectly to the historic tourism economy, financially benefiting local businesses through increased foot traffic and visibility (Damanik et al., 2021; Rahmawati et al., 2024).

The interactive nature of recreation in heritage applications enhances the cultural values of the participants. This experiential learning approach promotes students to participate with history actively rather than being passive observers. Diverse cultural events held in heritage spaces enable visitors to engage directly with Indonesia's rich legacy, thereby fostering memories that may enhance respect for local heritage (Siregar, 2019; Yapp, 2020).

Cultural assets: multigenerational communal areas Recreational public places that integrate culture and leisure, regardless of scale, are a vital component of the heritage landscape, connecting the past with the present. These venues facilitate a dialogue between the past and the present, engaging communities in conversations around identity and cultural preservation. Urban planners and historical managers highlight the significance of multifunctional spaces, while also recognizing recreation as a crucial component for history preservation. By rendering legacy pertinent to contemporary generations, Indonesia can safeguard its unique cultures and guarantee community prosperity (Hadian et al., 2023; Winata et al., 2023).

The integration of recreation into the heritage framework presents significant opportunities for sustainable development in Indonesia. Developing heritage spaces accessible to the public for educational purposes regarding history and culture, alongside promoting recreational and cultural activities, would undoubtedly aid in preserving the nation's invaluable history while fostering healthy lifestyles. This comprehensive approach to heritage illustrates its evolution as a notion in the modern world, facilitating the translation of the past into the present and future.

Tourism Management Strategies Supporting Heritage-Based Movement

In the Indonesian tourism sector, heritage-based movement methods have become essential for promoting cultural and historical tourism as well as for long-term growth. Guided itineraries and digital maps



may serve as crucial tools for managing visitor traffic in areas with designated clusters of recognized assets. Public trails in the Heritages can be immediately utilized for legacy trails in other cities, such as Medan and Semarang, which have effectively established history trails, allowing tourists to explore culturally and historically significant regions of the city. These routes enhance tourist experiences and enable efficient administration, allowing visitors to maximize their engagement with Indonesia's cultural heritage without overwhelming these vital sites (Ponirin et al., 2021; Pramono et al., 2021; Wright et al., 2020).

Heritage trails such as the Semarang Old Town Walks and Medan Colonial Route contribute to urban branding. Local government and tourism authorities can establish an identity for these regions by emphasizing notable historical sites and transforming them into distinct tourist destinations. By branding them to highlight their narrative journeys, the soles become more appealing to both local and international tourists, hence fostering economic development. The branding initiatives are bolstered by collaboration among stakeholders to develop a cohesive integrated marketing strategy that highlights the distinctiveness of the heritage sites (Lufiah et al., 2024; Rahmawati et al., 2024).

Moreover, partnerships with tourism boards, community organizations, and event planners are essential for crafting events centered on heritage tourism. The implementation of fun runs, cycling competitions, and cultural festivals at heritage sites can attract visitors while integrating physical activity with cultural discovery. Cities can collaborate with relevant organizations to host significant events focused on exercise and heritage, attracting a substantial turnout of individuals eager to engage with local history through physical activity. The incorporation of local sporting activities into heritage pathways enhances their visibility and stimulates interest in heritage sites that have been consistently overlooked as tourist attractions (Ariwibowo & Fibiona, 2025; Jamaludin et al., 2019).

Heritage route-focused event planning promotes community and local engagement. Engaging in historical narrative-driven activities that promote physical involvement is an invigorating method for citizens to cultivate pride in their historical setting while supporting their health and fitness. This combination of usage fosters a sense of belonging and enhances the area's cultural composition. The involvement of local inhabitants in the preparation for and alongside a series of seminars and educational initiatives will enhance the cultural experience (Rahmawati et al., 2024; Siregar & Rukmi, 2020).

Ultimately, the effectiveness of these heritage tourism strategies hinges on ongoing assessment and adaptation to visitor needs and preferences. Comprehensive visitor feedback systems can enhance these strategies' utility, allowing planners to refine experiences continually. Gathering insights from tourists regarding their experiences while navigating these heritage routes can help adjust and improve marketing strategies, ensuring that they resonate with diverse audiences and draw return visitors (Dameria et al., 2023; Widarti et al., 2020). This emphasis on continuous improvement not only enhances tourist satisfaction but also reinforces the sustainability of the tourism sector in Indonesia.

The utilization of technology and digital technologies improves tourism management. Smartphone applications can aid visitors by providing modern navigation and interactive experiences related to local history at heritage sites. Implementing gameful tactics in mobile historical tourism applications improves tourist engagement and satisfaction (Widarti et al., 2020). Digital tools enhance features and provide a modern perspective to heritage exploration, consequently drawing more tourists to cultural heritage sites through a blend of education and enjoyment in culinary tourism (Yapp, 2020).

The integration of guided itineraries and digital maps effectively addresses the demands of sustainable tourism. These methods regulate visitor movement within specified zones, mitigating potential harm to culturally and historically significant values. This traffic management strategy may aid in preserving undiscovered cultural sites and promoting local economic growth through tourism development (Su et al., 2018; Winata et al., 2023). This aligns with a global trend towards responsible tourism that promotes the appreciation and preservation of cultural assets.

The efficacy of these historical tourism methods relies on ongoing evaluation and adaptability to the preferences and desires of visitors. This is partially addressed through thorough visitor feedback systems that assist planners in enhancing encounters. Examining tourists' experiences and perceptions of traveling along heritage routes can enhance marketing tactics to ensure they attract diverse markets and encourage repeat visitation (Dameria et al., 2023; Widarti et al., 2020). This emphasis on enhancing

the system not only elevates consumer pleasure but also fortifies the viability of the tourism business in Indonesia.

The establishment of tourism management strategies based on heritage movements in Indonesia could provide innovative methods to preserve and enhance Indonesian cultural heritage, as well as promote community health and vitality. Preserve Indonesia's history and legacy through a comprehensive approach, including guided routes and heritage trails, to develop event programs that explore, conserve, and safeguard local and national historical narratives within the urban context of Indonesia. The emergence of these trends presents Indonesia with the possibility to become a prominent destination for heritage tourism, attracting a significant influx of inbound tourists while honoring its historical legacy (Ginting et al., 2021; Rukayah et al., 2020).

Figure 1. Four major thematic clusters



Based on the figure 1 above, the 13 selected studies were synthesized into four overarching thematic clusters. The first theme, Typologies of Movement-Based Heritage Engagement, highlights how activities such as walking tours, heritage marathons, and cycling events serve as primary modalities through which individuals physically engage with heritage spaces. Documented in cities like Yogyakarta, Jakarta, and Semarang, these activities foster embodied learning, strengthen place identity, and enable informal cultural education. For example, the Jogja International Heritage Walk exemplifies how movement can become a dynamic medium for reinterpreting historical landscapes. The second theme, Adaptive Reuse and Urban Regeneration, underscores the transformation of underutilized heritage buildings into multifunctional spaces such as museums, recreational hubs, and creative centers thereby reflecting a sustainable, participatory model for revitalizing Indonesia's urban fabric.

The third thematic cluster, Media Representation and Public Perception, draws attention to the growing role of digital platforms in shaping heritage narratives. For instance, the predominance of colonial imagery on Instagram's #surabayaheritage reveals a narrow portrayal that often excludes vernacular and indigenous expressions, raising questions about whose histories are being promoted and how public engagement with heritage can become more inclusive. Finally, the fourth theme, Ecological and Geological Dimensions of Heritage, explores the environmental aspects of heritage preservation. Studies in this cluster analyze how heritage sites interact with broader ecological systems or rest upon significant geological features, emphasizing heritage's potential to promote urban sustainability and resilience amid climate challenges.

The thematic synthesis not only reveals the diversity of approaches in integrating physical activity with urban heritage, but also highlights recurring trends and structural challenges across the reviewed literature. While certain cities and initiatives stand out for their innovation and inclusivity, the broader landscape of research and practice in Indonesia remains uneven. To better understand these dynamics, several recurring patterns, contradictions, and gaps were identified during the analysis. These are visualized in the following summary to provide a concise overview of the current state of knowledge and the opportunities for future inquiry.

Figure 2. Key Patterns and Gaps



The reviewed literature reveals several important patterns and tensions in how heritage tourism is evolving across Indonesian cities. Yogyakarta stands out for its strong community involvement and use of data-driven strategies to promote inclusive tourism, while Semarang demonstrates a balanced approach by integrating state-led narratives with robust empirical data. In contrast, other urban areas in Java continue to struggle with low levels of community participation and limited data infrastructure, hindering the effectiveness of their heritage initiatives. Meanwhile, cities outside Java show emerging potential through grassroots involvement, but suffer from a lack of empirical studies, making it difficult to generalize or scale these models. These patterns suggest that while movement-based engagement with heritage offers significant promise for revitalizing urban space and strengthening cultural identity, there remains a critical need for more inclusive, geographically diverse, and evidence-based approaches to fully realize its potential.

Discussion

Indonesia's urban legacy presents an intriguing context for examining the relationship among physical activity, recreation, and tourism. Literature indicates that integrating mobility into heritage engagement through walking tours, marathons, and cycling routes is advantageous for public health and fosters a profound connection to the cultural landscape (Andari, 2019; Damanik et al., 2023). This aligns with broader international concepts of 'active heritage', where physical experiences facilitate multimodal learning and a profound connection to place. Cities in Indonesia, including Yogyakarta and Semarang, illustrate how movement transforms 'passive' tourist into active cultural participation (Ponirin et al., 2023).

Utilizing an open and inclusive methodology, recreation serves as a conduit for urban inhabitants and visitors in relation to heritage-inclusive activities for the living. Community yoga, public art walks, and programs like the Jogja International Heritage Walk integrate recreation with culture (Ariwibowo & Fibiona, 2025; Suhardono et al., 2024), thereby dissolving social and generational obstacles to participation. These are avenues via which public space might transition from a platform for passive consumption to mechanisms of active citizenship and cultural stewardship.

Adaptive reuse serves as a sustainable approach to renovation in heritage contexts, integrating functional revitalization with preservation goals. Heritage buildings in Semarang and Medan have been repurposed into multifunctional cultural and recreational spaces (Winata et al., 2025; Rukayah et al., 2025). This dual approach signifies a shift from mere preservation to adaptable models that integrate history with contemporary needs.

This can be accomplished via tourism management, encompassing the development of heritage pathways and the application of digital mapping technology to guide visitor flow and enhance their comprehension. Trails like the Semarang Old Town Walk and Medan Colonial Route promote guided exploration, alleviating the strain on fragile heritage perceptions (Pramono et al., 2021; Lufiah et al., 2024). Collaborations among various stakeholders and innovative branding that highlights unique urban narratives quickly bring the concept to fruition.

Digital technology and heritage-oriented experiential movements Digital Technologies Enhance the Experience of Heritage-Based Movement (Level 3) The interactive layers of meaning, including mobile applications, QR code navigation, and gamification, augment visitor happiness and prolong dwell periods (Widarti et al., 2020). Younger demographics are very engaged with these technologies, aligning with the objectives of digital tourism advancement in Indonesia.

Additional aspects will also contribute to the effective integration of heritage tourism and community engagement. Participation in local history events enhances, informs, and fosters well-being, connectivity, and pride. Heritage runs and community festivals exemplify how physical activity fosters local identity formation and citizen participation (Rahmawati et al., 2024; Siregar & Rukmi, 2024). This sense of ownership also contributes to the permanence and significance of legacy in daily life.

The audio component of movement-based engagement expands learning beyond the visual realm. Experiences that engage touch, taste, and sound, such as culinary tours and riverside walks, connect participants to the landscape, contextualize their experiences, and enhance cultural comprehension (Jokar et al., 2022; Shi et al., 2023). This type of experiential learning promotes educational objectives and fosters inclusivity and diversity in the representation of history.

Despite recent innovations in movement-based heritage engagement, several significant challenges persist. A major limitation lies in the geographic concentration of existing studies, which are overwhelmingly centered on Java, leaving Eastern and peripheral Indonesian regions such as Kalimantan, Sulawesi, and Papua largely underrepresented. Furthermore, few studies investigate the long-term behavioral impacts of heritage-related physical activity, limiting understanding of its sustained effects on individuals and communities. Another gap is the insufficient integration between key disciplines urban planning, public health, and cultural policy which restricts the development of comprehensive and cross-sectoral approaches to heritage tourism and urban revitalization.

To address these challenges, future research should adopt mixed-methods designs that evaluate the health, social, and economic outcomes of active heritage initiatives while also expanding geographically to include less-studied regions. In parallel, there is a need for policy-oriented frameworks that connect heritage tourism with sustainable mobility and community well-being. City governments and urban planners can play a crucial role by designing walkable and bikeable heritage zones enhanced with interpretive signage and digital storytelling tools, promoting school and community partnerships for inclusive programs, and incentivizing the adaptive reuse of heritage buildings as multifunctional spaces for leisure, education, and civic engagement. These strategies will help position heritage not only as a cultural asset but also as a dynamic medium for sustainable urban development.

Conclusions

This literature review highlights the transformative potential of integrating physical activity, recreation, and tourism management in exploring Indonesia's urban heritage. Movement-based engagement through walking, cycling, and recreational events not only enriches visitor experiences but also strengthens emotional and educational connections to cultural sites. Adaptive reuse of heritage buildings and the development of heritage trails underscore the role of strategic urban planning in preserving historical value while fostering public access. Digital tools and community-led initiatives further enhance inclusivity and interactivity, demonstrating that urban heritage can be both protected and revitalized through participatory practices. Moreover, recreation in heritage spaces bridges the divide between historical conservation and contemporary use, making cultural heritage accessible to diverse populations. However, current scholarship tends to focus on select urban centers and often lacks empirical validation, limiting broader policy relevance. Addressing these gaps through interdisciplinary research



and inclusive strategies will be vital for promoting sustainable heritage tourism. Ultimately, the convergence of movement and heritage represents a powerful avenue for Indonesia to balance urban modernization with cultural preservation, fostering vibrant public spaces that serve as both historical anchors and catalysts for community well-being.

References

- Andari, R. (2019). Developing a Sustainable Urban Tourism. *The Journal : Tourism and Hospitality Essentials Journal*, 9(1), 27. <https://doi.org/10.17509/THEJ.V9I1.16986>
- Andujar, A. E. (2020). Heritage Assemblages. The Heritage Site of Borobudur (Indonesia) as a Cultural Landscape. *Moussons*, 36, 125–161. <https://doi.org/10.4000/MOUSSONS.6643>
- Ariwibowo, G. A., & Fibiona, I. (2025). Sustainable Urban Cultural Heritage Policy in the City of Yogyakarta, Indonesia. *Journal of Heritage Management*, 10(1), 67–85. <https://doi.org/10.1177/24559296241302986>
- Asmelash, A. G., & Kumar, S. (2019). The structural relationship between tourist satisfaction and sustainable heritage tourism development in Tigray, Ethiopia. *Heliyon*, 5(3). <https://doi.org/10.1016/J.HELİYON.2019.E01335>
- Barnes, S. J. (2022). Heritage protection and tourism income: the tourism heritage Kuznets curve. *Tourism Review*, 77(6), 1455–1471. <https://doi.org/10.1108/TR-03-2022-0125>
- Chauhan, E., & Anand, S. (2023). Guided heritage walks as a tool for inclusive heritage education: case study of New Delhi. *Journal of Cultural Heritage Management and Sustainable Development*, 13(2), 253–268. <https://doi.org/10.1108/JCHMSD-08-2020-0120>
- Cholil, A., Handaka, T., & Noer, H. B. (2024). Heritage Tourism Branding Strategy (Comparative Study of Heritage Tourism Branding Strategies in Madura, Indonesia and Malaysia). *Advances in Social Science, Education and Humanities Research*, 969–975. https://doi.org/10.2991/978-2-38476-118-0_111
- Damanik, E. L., Simanjuntak, D. H. P., & Daud, D. (2021). Cultural heritage buildings for urban tourism destinations: portraits of Siantar, Indonesia, in the past. *F1000Research*, 10, 554. <https://doi.org/10.12688/F1000RESEARCH.48027.1>
- Dameria, C., Winarso, H., Indradjati, P. N., & Tjokropandojo, D. S. (2023). The influence of sense of place dimensions on visitors' conservation behavioral intention: the case of Semarang Old Town, Indonesia. *Open House International*, 48(4), 767–788. <https://doi.org/10.1108/OHI-09-2022-0238>
- Drianda, R. P., Zohrah, L., & Aritenang, A. F. (2021). Innovation in Cultural Heritage Preservation in Taiwan: Lessons for Indonesia. *IAFOR Journal of Cultural Studies*, 6(2), 73–89. <https://doi.org/10.22492/IJCS.6.2.04>
- Eladway, S. M., Azzam, Y. A., & Al-Hagla, K. S. (2020). Role of Public Participation in Heritage Tourism Development in Egypt: A Case Study of Fuwah City. *WIT Transactions on Ecology and the Environment*, 241, 27–43. <https://doi.org/10.2495/SDP200031>
- Fathi, S., Sajadzadeh, H., Sheshkal, F. M., Aram, F., Pinter, G., Felde, I., & Mosavi, A. (2020). The Role of Urban Morphology Design on Enhancing Physical Activity and Public Health. *International Journal of Environmental Research and Public Health*, 17(7). <https://doi.org/10.3390/IJE-RPH17072359>
- Geçikli, R. M., Turan, O., Lachytová, L., Dağlı, E., Kasalak, M. A., Uğur, S. B., & Guven, Y. (2024). Cultural Heritage Tourism and Sustainability: A Bibliometric Analysis. *Sustainability*, 16(15). <https://doi.org/10.3390/SU16156424>
- Ginting, N., Rahman, N. V., Nasution, A. D., & Wahid, J. (2021). Particular Characters in Heritage Tourism to Attract Visitors: A comparative study in Sumatra, Indonesia. *Environment-Behaviour Proceedings Journal*, 6(18), 205–210. <https://doi.org/10.21834/EBPJ.V6I18.2995>
- Hadian, M. S. D., Suganda, B. R., Barkah, M. N., Khadijah, U. L. S., Yuliawati, A. K., Nuryana, S. D., & Ekaputra, D. B. (2023). Quaternary Urban Geology and the Foundation of Heritage Building: Notable Historical Cases in Sawahlunto, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 1263(1). <https://doi.org/10.1088/1755-1315/1263/1/012018>



- Huss, M. (2025). Walking tours as transcultural memory activism: Referencing memories of trauma and migration to redefine urban belonging. *Memory Studies*, 18(1), 3–21. <https://doi.org/10.1177/17506980241247271>
- Jamaludin, U., Akbar, M., & Sumantri, M. S. (2019). Investment of Islamic Based Cultural Values in Learning Social Knowledge Science. *International Journal of Multicultural and Multireligious Understanding*, 6(4), 340. <https://doi.org/10.18415/IJMMU.V6I4.975>
- Jokar, S., Shojaei, P., Askarifar, K., & Haqbin, A. (2024). Investigating social risks of construction projects in historic tourism sites in urban districts of developing countries: social network analysis approach. *International Journal of Contemporary Hospitality Management*, 36(2), 358–378. <https://doi.org/10.1108/IJCHM-03-2022-0282>
- Lufiah, L., Gumantiara, M. I., & Ramadhan, Z. (2024). Paradiplomacy and Its Influence on Visitor Trends at Twin World Heritage Sites: A Case Study of Borobudur Temple 2018-2019. *Journal of Paradiplomacy and City Networks*, 3(1), 42–53. <https://doi.org/10.18196/JPCN.V3I1.39>
- Maulina, A., Sukoco, I., Hermanto, B., & Kostini, N. (2023). Tourists' Revisit Intention and Electronic Word-of-Mouth at Adaptive Reuse Building in Batavia Jakarta Heritage. *Sustainability*, 15(19). <https://doi.org/10.3390/SU151914227>
- Opfermann, L. S. (2021). Walking in Jozi: Guided Tours, Insecurity and Urban Regeneration in Inner City Johannesburg. *Global Policy*, 12(S2), 41–52. <https://doi.org/10.1111/1758-5899.12809>
- Ormond, M., & Vietti, F. (2022). Beyond multicultural 'tolerance': guided tours and guidebooks as transformative tools for civic learning. *Journal of Sustainable Tourism*, 30(2–3), 533–549. <https://doi.org/10.1080/09669582.2021.1901908>
- Patria, T. A., Hidayah, N., & Suherlan, H. (2023). Effect of Immersive Experience on Repurchase Intention of Virtual Heritage Tours among Gen-Z in Indonesia. *E3S Web of Conferences*, 388. <https://doi.org/10.1051/E3SCONF/202338804013>
- Ponirin, Rambe, T., & Khairani, L. (2021). Mapping Tourism Potential Based on Urban Heritage Tourism in Medan City. *CSR International Journal*, 1(1), 1–11. <https://doi.org/10.35307/CSRIJ.V1I1.16>
- Pramono, W. T., Anggriani, S. D., Meiji, N. H. P., Ujang, N., & Sayono, J. (2021). Awakening Local Tourism Based on Indische Architecture in Indonesia. Case Study Kajoetangan Kampong Heritage of Malang. *GeoJournal of Tourism and Geosites*, 35(2), 437–444. <https://doi.org/10.30892/GTG.35223-670>
- Prayuda, R., Warsito, T., & Surwandono. (2020). Problems faced by ASEAN in dealing with transnational drug smuggling in Southeast Asia region. *Foresight*, 23(3), 353–366. <https://doi.org/10.1108/FS-12-2019-0106>
- Rahmawati, A., Tutiasri, R. P., & Febriyanti, S. N. (2024). Curating culture: Instagram and the visual representation of heritage tourism in Surabaya. *Jurnal Studi Komunikasi (Indonesian Journal of Communications Studies)*, 8(1), 082–091. <https://doi.org/10.25139/JSK.V8I1.6785>
- Rukayah, R. S., Vania, S. A., & Yuwono, S. (2020). Fostering the Management of Post Office Building from Architectural, Heritage and Urban Design View (Case study: The Solo Post Office, Central Java, Indonesia). *Proceedings of the International Conference of Heritage & Culture in Integrated Rural-Urban Context (HUNIAN 2019)*. <https://doi.org/10.2991/AER.K.200729.023>
- Saginatari, D. P., Hale, J., & Collett, T. S. (2024). Architectural Porosity: Reading The Change of Inhabitation in Urban Heritage Area. *Journal of Design, Planning and Aesthetics Research*. <https://doi.org/10.55755/DEPARCH.2024.25>
- Salim, N., & Rahman, N. A. (2022). Politicization and Commodification of Tourism: Implications for George Town World Heritage Site. *International Journal of Academic Research in Business and Social Sciences*, 12(12). <https://doi.org/10.6007/IJARBS/V12-I12/14916>
- Shi, Y., Mohidin, H. H. B., & Harumain, Y. A. S. (2023). *Perception of Visitors and Residents on Pedestrian Environment of Heritage Cities*. <https://doi.org/10.21203/RS.3.RS-3056017/V1>
- Siregar, J. P. (2019). The Ideological Meanings of Heritage: The Conflicting Symbols in Yogyakarta, Indonesia. *DIMENSI (Journal of Architecture and Built Environment)*, 45(2), 121–132. <https://doi.org/10.9744/DIMENSI.45.2.121-132>
- Siregar, J. P., & Rukmi, W. I. (2020). Rethinking the Heritage Value from Different Perspectives, Case Study in Yogyakarta. *Iconarp International J. Of Architecture and Planning*, 8(2), 498–517. <https://doi.org/10.15320/ICONARP.2020.124>
- Su, R., Bramwell, B., & Whalley, P. A. (2018). Cultural political economy and urban heritage tourism. *Annals of Tourism Research*, 68, 30–40. <https://doi.org/10.1016/J.ANNALS.2017.11.004>



- Suhardono, S., Safitri, F. E., Rachmalia, F., Rizky, F. A., Khairunnisa, D. H., Septiariva, I. Y., & Suryawan, I. W. K. (2024). Assessing the Ecological Function Effectiveness of Urban Parks in Surakarta City, Indonesia. *Ecological Engineering & Environmental Technology*, 25(4), 227–240. <https://doi.org/10.12912/27197050/183790>
- Suprpti, A. (2021). A Living Heritage Approach Toward Sustainability of Islamic City in The Northern Coastal of Java, Indonesia. *Journal of Architectural Design and Urbanism*, 4(1), 61–78. <https://doi.org/10.14710/JADU.V4I1.13006>
- Truman, S. E., & Springgay, S. (2019). Queer Walking Tours and the affective contours of place. *Cultural Geographies*, 26(4), 527–534. <https://doi.org/10.1177/1474474019842888>
- Widarti, E., Eman, D., & Suyoto. (2020). User-centered Design for Mobile Apps Guide Service Heritage Tourism in Indonesia. *International Journal of Interactive Mobile Technologies (IJIM)*, 14(16), 87–100. <https://doi.org/10.3991/IJIM.V14I16.11312>
- Winata, D., Tobing, R. R., & Herwinda, R. P. (2023). Adaptive Reuse Guidelines on Warenhuis Medan and Urban Heritage Environment. *Idealog: Ide Dan Dialog Desain Indonesia*, 8(1), 80. <https://doi.org/10.25124/IDEALOG.V8I1.5508>
- Wonglangka, W., & Han, F. (2024). Green Heritage and Lanna Urban Identity: A Study of Temples in Chiang Mai Old City. *Sustainability*, 16(15). <https://doi.org/10.3390/SU16156574>
- Wright, P. M., Gordon, B., & Gray, S. (2020). Social and Emotional Learning in the Physical Education Curriculum. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/ACREFORE/9780190264093.013.1061>
- Yapp, L. (2020). The future in the past: colonial modernity as urban heritage in contemporary Indonesia. *South East Asia Research*, 28(2), 178–198. <https://doi.org/10.1080/0967828X.2020.1768801>

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