

## TWO WATERFRONTS, TWO STORIES: A COMPARATIVE ANALYSIS OF TANJUNG CHALI AND THE MELAKA RIVERFRONT

Received: 14 September 2025 | Accepted: 22 October 2025 | Available Online: 30 November 2025

DOI: 10.31436/japcm.v15i2.1015

**Mohd Amirul Hussain<sup>1\*</sup>, Mohd Yazid Mohd Yunos<sup>2</sup>, Nur Afikah Idrus<sup>2</sup>, Hishammuddin Hamdan<sup>3</sup>, Nurul Izzati Othmani<sup>4</sup>, Shuhua Liu<sup>5</sup>**

<sup>1\*</sup> Faculty of Technical and Vocational, Universiti Pendidikan Sultan Idris, 35900, Tanjong Malim, Perak, Malaysia

<sup>2</sup> Faculty of Design and Architecture, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

<sup>3</sup> Matriculation Division, Kementerian Pendidikan Malaysia, Putrajaya 62604, Malaysia

<sup>4</sup> Faculty of Architecture and Ekistics, Universiti Malaysia Kelantan, 16300 Bachok, Kelantan, Malaysia

<sup>5</sup> College of Resources and Environment, Linyi University, Linyi 276000, China

\*Corresponding author: **Mohd Amirul Hussain**

Corresponding author's email: [amirul.hussain@ftv.upsi.edu.my](mailto:amirul.hussain@ftv.upsi.edu.my)

### ABSTRACT

Urban heritage waterfronts are essential elements for shaping place identity, preserving historical narratives and memories, and supporting local tourism development. This study compares two heritage waterfronts in Malaysia, namely Tanjung Chali in Alor Setar and the Melaka Riverfront in Melaka, to evaluate the role of physical landscapes, conservation policies, and the implications of development for heritage sustainability. Tanjung Chali reflects Kedah's early identity as a traditional trading hub, yet it has received comparatively less attention in conservation efforts. In contrast, the Melaka Riverfront has undergone rapid transformation through conservation and commercialisation projects, making it an iconic world heritage-based tourism destination. The study employs document analysis, historical maps, secondary data, and field observations to identify the similarities, differences, and key challenges faced by both waterfronts. The findings reveal that although both sites share historical value and strategic riverfront locations, differing management approaches have produced divergent development trajectories: the Melaka Riverfront emphasises the commercialisation of heritage, whereas Tanjung Chali remains localised and underdeveloped. This article underscores the need for a balanced management model that reconciles conservation and development, thereby offering policy recommendations to strengthen Tanjung Chali's potential as a sustainable heritage destination without compromising its original identity.

**Keywords:** Cultural Landscape, Urban Revitalisation, Heritage Tourism, Sustainable Development, Waterfront

## 1.0 INTRODUCTION

Waterfront or riverfront development has always been central to the sustainability of historic cities, as it not only functions as a hub for trade and connectivity but also shapes the cultural identity of local communities. In Malaysia, many historic towns have grown and flourished along rivers, including Melaka, which is recognised as a UNESCO World Heritage Site, and Alor Setar, which retains its historical heritage within the Tanjung Chali area (Rose & Ghani, 2020). Waterfronts are not merely physical spaces but also cultural landscapes that reflect the interaction between people and their environment (Iqbal et al., 2020). The same scholars emphasise that every waterfront shapes identity, distinctiveness, and symbolism of place, thereby playing a vital role in attracting visitors while preserving the original image and maintaining the sense of attachment, perception, and experience among users. Nevertheless, rapid development and urbanisation pressures often pose challenges to the sustainability of heritage waterfronts. The rapid transformation of the Melaka Riverfront, for instance, has turned it into a major tourist attraction through modernisation and commercialisation initiatives. At the same time, however, concerns have been raised about the erosion of its original heritage values, which risks undermining local identity and authenticity (Amir et al., 2020). In contrast to the urbanised image of the Melaka Riverfront, Tanjung Chali continues to preserve its traditional character as a modest riverside settlement in northern Malaysia. Although it has received less attention in mainstream tourism and mass media, it remains a

meaningful site for visitors. This contrast raises the critical question of how to balance cultural conservation with the demands of economic development in historic waterfronts—reflecting the central dilemma in planning the future of cities with strong cultural identities.

According to Hussain et al. (2022), most previous studies have primarily focused on the development of individual waterfronts and paid less attention to comparative analysis across different contexts. Therefore, this study seeks to fill this gap by comparing Tanjung Chali and the Melaka Riverfront as two distinct narratives of heritage waterfront development in Malaysia. The selection of these two sites is deliberate, as both represent contrasting yet complementary typologies of Malaysian heritage waterfronts. The Melaka Riverfront, recognised as part of a UNESCO World Heritage Site, exemplifies a globally acknowledged model of heritage-led urban tourism and regeneration. In contrast, Tanjung Chali embodies a community-oriented and organically evolved riverfront that maintains its traditional spatial character and socio-cultural functions despite limited exposure to mass tourism. Through this comparison, the study critically examines how different governance frameworks, heritage statuses, and development pressures influence the conservation and transformation of cultural landscapes. Furthermore, employing two case studies is methodologically appropriate within qualitative research (Yin, 2014; Creswell & Creswell, 2017), as it allows for in-depth contextual comparison and the identification of transferable insights applicable to other historic waterfronts in Malaysia and beyond.

Accordingly, the main objective of this study is to compare the physical elements, functions, development policies, and cultural identities of these two waterfronts. Such a comparison is expected to identify the key issues, challenges, and opportunities in managing historic waterfronts, thereby enabling urban development to proceed without sacrificing heritage values. This study also contributes to the academic literature on waterfront cultural landscapes in Malaysia while offering practical insights for urban planners, local authorities, and policymakers. In line with the aspirations of the Sustainable Development Goals (SDG 11: Sustainable Cities and Communities), the findings aim to reinforce the balance between heritage conservation and economic development in historic cities, while demonstrating how differing heritage statuses and development contexts can provide valuable lessons for sustainable waterfront management.

## **2.0 LITERATURE REVIEW**

### **2.1. Waterfronts as Cultural Landscapes**

Waterfronts are not merely physical spaces along rivers or seas; rather, they represent cultural landscapes that symbolise the interaction between humans and nature, while serving as unique witnesses to the evolution of heritage, culture, and civilisation across the world (Shamsuddin, 2011). The same author further emphasises that waterfronts often function as centres of economic, social, and cultural activity that shape the identity of a city. This view is supported by Traboulsi et al. (2023), who note that in historic cities, waterfronts frequently mark the origins of settlement, act as hubs of trade, and provide communal meeting spaces. Thus, understanding waterfronts as cultural landscapes allows for an evaluation that extends beyond physical form to include their symbolic and social values.

### **2.2. Waterfront Development and Regeneration**

Much of the existing scholarship highlights waterfront regeneration as a critical strategy in modern urban development. According to Xie (2023), this concept encompasses efforts to upgrade infrastructure, revitalise public spaces, and transform waterfront areas into attractions for tourism and investment. This perspective is reinforced by Liu et al. (2024), who points to the Melaka Riverfront as a concrete example of how regeneration can generate significant economic benefits through the growth of both domestic and international tourism. Nevertheless, the same scholar cautions that regeneration is often criticised for displacing local communities and reducing cultural landscapes to purely commercial entities. This creates a persistent dilemma between heritage preservation and the pressures of contemporary development.

### **2.3. Heritage Conservation and Urban Identity**

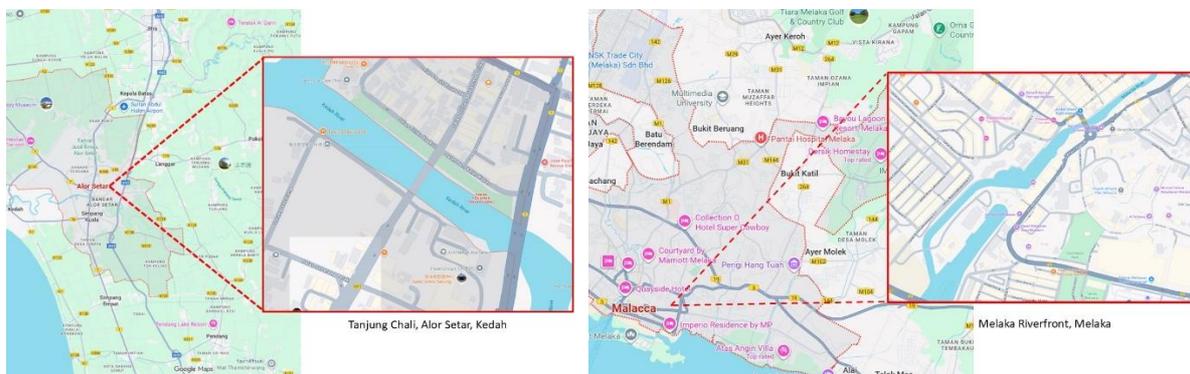
According to C40 Cities (2019), conserving historic waterfronts is vital for maintaining the continuity of urban identity. Previous studies suggest that heritage value is not confined to physical structures but also lies in

collective memory, traditions, and the narratives through which communities engage with place (Ujang & Zakariya, 2015). A clear distinction can be observed between Melaka and Tanjung Chali in this respect. Melaka has undergone extensive transformation marked by strong commercialisation, whereas Tanjung Chali remains more inward-looking, retaining its communal identity without significant external pressures of commercialisation. This comparison raises an important debate on how cities can sustain a sense of place without being overshadowed by economic imperatives, which often risk producing contrived heritage that undermines the cultural authenticity intended to be preserved.

## 2.4. Research Gap and New Directions

Much of the literature on Malaysian waterfronts has focused on single locations or has limited its scope to assessing the physical impacts of development, without conducting comparative analyses across historic cities. Consequently, there remains a gap in understanding how different approaches to waterfront development and heritage conservation shape urban identity and cultural resilience. Historically, both Tanjung Chali and the Melaka Riverfront evolved as vital nodes of trade and settlement along major river systems in Malaysia. Tanjung Chali, located in Alor Setar, Kedah, once served as a traditional riverside marketplace that connected local communities through fishing and trading activities. Despite urban changes, it still retains its vernacular riverine character and community-based cultural landscape. In contrast, the Melaka Riverfront, which originated as a colonial-era trading hub, has undergone extensive transformation through tourism-oriented regeneration and urban beautification initiatives, reflecting its global prominence as part of a UNESCO World Heritage City. A comparative study of these two sites therefore provides an opportunity to examine two divergent narratives of development—one more conservative and community-based, the other more modern and commercialised. Such an analysis not only addresses an academic gap but also offers practical guidance for stakeholders in designing heritage waterfront policies that balance conservation with sustainable development.

## 3.0 METHODOLOGY



**Fig. 1.** Location map of the study areas Tanjung Chali, Alor Setar (left), and the Melaka Riverfront (right) illustrating their geographical setting and urban context. (Source: Google Maps)

This study adopts a descriptive qualitative approach, focusing on a comparative analysis between two historic waterfront areas: Tanjung Chali in Alor Setar and the Melaka Riverfront in Melaka as shown in Figure 1 above. According to Ruhizar et al., (2021) and Hussain et al. (2025), this approach was selected as it enables the researcher to identify both similarities and differences in terms of physical elements, development strategies, and the cultural landscape values embedded within the two waterfronts. By emphasising narrative and visual analysis, the study does not involve direct informants but relies instead on secondary sources and limited field observations.

The primary method employed is document analysis, which includes reviewing urban planning reports, heritage conservation documents, academic articles, and other relevant secondary sources (Nursaniah et al., 2021). They also highlight that informal field observations were conducted to assess the physical condition, spatial layout, and visual elements of both waterfronts. This method allows the researcher to gain direct insight into how historical landscape elements are either preserved or transformed within the context of contemporary development.

Furthermore, as Wee Kah Man (2024) and Asriana et al. (2024) emphasise, in order to ensure a more systematic comparison, the analysis was divided into several key themes derived from the literature review, namely: (i) physical elements and urban design; (ii) development and regeneration strategies; (iii) heritage conservation and cultural identity; and (iv) tourism potential and socio-economic impact. These themes served as the analytical framework for evaluating the extent to which both waterfronts balance the demands of modern development with the preservation of historical identity.

To strengthen the findings, a thematic comparative analysis was applied. As Ibrahim et al. (2023) explain, secondary data and field observations were categorised according to the identified themes and then critically compared to identify patterns, similarities, and differences. The outcomes of this analysis are used to formulate both academic and practical implications for planning historic waterfronts in Malaysia, thereby deepening the understanding of the balance between conservation and development.

## **4.0 RESULTS AND DISCUSSION**

This section presents the results and discussion of the study findings, focusing on the comparative evaluation of Tanjung Chali in Alor Setar and the Melaka Riverfront. The discussion is structured around four key themes: Cultural Identity and Heritage, Physical Design and Infrastructure, Economy and Tourism, and Environmental Sustainability—which were derived from the literature review and theoretical perspectives on cultural landscape and waterfront development (Shamsuddin, 2011; Haron, 2021; Hussain et al., 2022). These themes reflect the multidimensional relationship between cultural, physical, economic, and ecological dimensions in shaping the sustainability and character of heritage waterfronts.

### **4.1. Cultural Identity and Heritage**

Cultural identity and heritage are fundamental aspects in evaluating waterfront landscapes, as they shape the image, collective memory, and historical continuity of a place. In Tanjung Chali, cultural identity is largely influenced by the Malay and Chinese communities, alongside the river's historical role as a centre for religious activities, small-scale trade, and daily life that has existed since the early 1920s. The presence of iconic landmarks such as Masjid Zahir, Balai Nobat, and Pekan Rabu, as well as Straits Eclectic style-colonial-era buildings dating back to the Kedah Sultanate, gives Tanjung Chali a distinctive position as a symbol of local heritage continuity that remains understated. Nevertheless, efforts to conserve its physical heritage appear relatively marginal when compared with other heritage waterfronts such as Kuching and Melaka, as attention in Tanjung Chali has been more inclined towards oral histories and the collective memory of the local community.

In contrast, the Melaka Riverfront demonstrates a more systematic approach in foregrounding cultural identity and heritage, strongly shaped by place branding and tourism identity. According to Ibrahim et al. (2023), Melaka, along with other recognised heritage cities, has been acknowledged for the preservation of its physical heritage—such as historic buildings and the retention of original architectural styles—while simultaneously integrating historical elements into the city's tourism narrative. Similarly, Wee Kah Man (2023) found that the adaptive reuse of shophouses into restaurants and cafés reinforces the sense of place and supports urban conservation in Melaka, provided that community involvement is carefully implemented to prevent the erosion of its authentic cultural character.

To strengthen this analysis, visual comparison is essential in highlighting the marked differences between the two waterfronts. In Tanjung Chali, heritage elements are more visibly expressed through community living functions that retain traditional aspects, despite the modest yet somewhat weathered condition of old buildings, which silently testify to Alor Setar's urbanisation process. Conversely, along the Melaka River, physical conservation and tourism-oriented commercialisation are accentuated more strongly, supported by substantial public investment from the local authorities—a phenomenon also discussed by Ibrahim et al. (2023) and Hussain et al., (2024). Hence, the following images are utilised to substantiate the narrative of this analysis (Fig.2.).



**Fig. 2.** Old shophouses in Tanjung Chali (left) retain their original architectural character as part of the local community identity, whereas in Melaka (right), historic buildings have been restored and adapted as tourist attractions and as symbols of the city’s UNESCO World Heritage status. (Source: Authors)

This comparison illustrates two contrasting approaches: Tanjung Chali remains more community-oriented, with modest heritage that continues to preserve local identity and sustain small-scale trading activities, while Melaka highlights heritage and historical elements as economic assets and as a global image, positioning them as primary attractions. These divergent strategies open up discussion on how cultural values and heritage may be managed—either as symbols of community continuity or as resources for historic city branding—thereby reflecting distinct approaches to the preservation of identity.

**Table 1:** Summary of the key differences in cultural identity and heritage between Tanjung Chali and the Melaka Riverfront

Comparative Aspect	Tanjung Chali (Alor Setar)	Melaka Riverfront
Physical Heritage Elements	Zahir Mosque, traditional shophouses in the Malay & Chinese quarters with “Straits Eclectic Style”, Pekan Rabu, and Tanjung Chali Tower.	Dutch, Portuguese, and British heritage buildings; well-preserved rows of old shophouses featuring a unique hybrid architecture combining Malay–Portuguese–Dutch–British–Chinese influences, shaping the identity of the UNESCO World Heritage City.
Historical Value	Associated with the history of the Kedah Sultanate and local trading activities.	Linked to the history of international port trade and the colonial era.
Identity Symbol	The river as the lifeline of small-scale trade and a symbol of the state’s civilisation.	The river as a symbol of early globalisation and cultural encounters.
Heritage Preservation	Limited, with greater focus on iconic buildings (e.g. Zahir Mosque, Pekan Rabu, Chinese and Malay Quarters).	More comprehensive through UNESCO projects and designated conservation zones.
Contemporary Cultural Role	Still present but has received limited revitalisation within the tourism context.	Positioned as a key asset in cultural tourism and the local economy.

## 4.2. Physical Design and Infrastructure

From the perspective of physical design and infrastructure, Tanjung Chali and the Melaka Riverfront display striking differences in terms of development planning and strategies for urban space utilisation, as illustrated in Figure 3 below. Tanjung Chali retains its traditional layout, characterised by rows of old shophouses, mosques, and basic community facilities that continue to serve as the heart of local social interaction without undergoing major transformations. While this contributes to authenticity and a sense of heritage, the lack of supporting infrastructure—such as pedestrian-friendly walkways, landscaped recreational spaces, adequate areas for social activities, and systematic night lighting—renders the area less appealing to outside visitors (Rahman, 2022).

In contrast, the Melaka Riverfront has undergone extensive transformation through comprehensive riverbank redevelopment, featuring pedestrian walkways, tourist jetties, decorative lighting, wall murals, and the integration of modern commercial spaces such as cafés and restaurants as key tourist attractions. This approach not only enhances accessibility and safety but also redefines the river as a central tourism icon (Wee, 2023). Nevertheless, rapid development in Melaka has also generated issues of congestion, over-commercialisation, and the challenge of maintaining a balance between modern development and heritage conservation.

In summary, Tanjung Chali highlights the value of traditional authenticity but remains limited in terms of modern infrastructure, whereas the Melaka Riverfront demonstrates success in integrating physical design that appeals to tourists, albeit at the risk of losing its original identity.



**Fig. 3.** The row of old shophouses in front of Tanjung Chali river (left) reflects a traditional layout that continues to serve as part of the community's social fabric, albeit with limited supporting infrastructure. In contrast, the Melaka Riverfront (right) showcases comprehensive riverbank redevelopment incorporating modern elements such as pedestrian walkways, lighting, and commercial spaces, thereby transforming its function into a major tourist attraction. (Source: Authors)

## 4.3. Economy & Tourism

In terms of economy and tourism, the two waterfronts demonstrate divergent development trajectories shaped by their respective potential and functional roles. While the two sites differ significantly in their status and scale, Melaka being a UNESCO World Heritage site, and Tanjung Chali, representing a smaller local waterfront, the comparison is made to highlight how differing governance frameworks and development pressures influence economic and tourism outcomes within Malaysia's diverse cultural landscape contexts. In Tanjung Chali, economic activities remain primarily local, centred around small-scale trade such as grocery shops, food stalls, and community services that sustain the daily lives of residents. The impact on tourism is still limited, as the area

has not undergone a large-scale transformation to attract international visitors. Instead, it continues to serve as a cultural and historical space closely tied to the local community. This situation presents challenges in terms of economic sustainability, since the lack of strong tourism appeal means the area’s potential is not fully realised (Haron, 2021).

**Table 2:** Summary of the key differences in physical design and infrastructure between Tanjung Chali and the Melaka Riverfront.

Aspect	Tanjung Chali	Melaka Riverfront	Comparative Analysis
Building Design	Numerous traditional shophouses in the Malay & Chinese quarters with “Straits Eclectic Style”.	A mix of modern and colonial buildings, characterised by a unique hybrid architecture combining Malay–Portuguese–Dutch–British–Chinese influences.	Tanjung Chali remains more traditional, whereas Melaka is more commercial and incorporates modern elements.
Tourism Infrastructure	Limited, focusing mainly on markets, mosque, and jetty.	Well-equipped with pedestrian walkways, cafés, galleries, and museums.	Melaka is more systematically planned as a tourist attraction.
Accessibility	Limited vehicle access, serving mostly local users.	Good accessibility with integration into the city’s tourism network.	Melaka functions at a more international scale.

In contrast, the Melaka Riverfront has evolved into a world-class tourism icon, with heritage- and recreation-based development that draws millions of visitors each year. A variety of commercial activities—including restaurants, boutique hotels, museums, and the Melaka River Cruise—contribute directly to the growth of the local economy (Ismail et al., 2022). However, comparisons also highlight long-term risks, as a tourism-oriented approach frequently invites issues of over-commercialisation, which may erode the site’s authentic heritage values (Lim & Ahmad, 2023).

Tanjung Chali, on the other hand, while less prominent in terms of tourism, preserves the authenticity of its local community, making it an example of a place that continues to balance heritage and modest development. Consequently, the contrast between the two waterfronts underscores the importance of economic development strategies that prioritise not only profit, but also the sustainability of heritage and local identity.

**Table 3:** Comparison of Economy and Tourism between Tanjung Chali and the Melaka Riverfront.

Aspect	Tanjung Chali	Melaka Riverfront	Comparative Analysis
Main Economic Activities	Traditional markets, fisheries, and local trade.	Tourism, hospitality, and modern retail businesses.	Melaka is more commercial, whereas Tanjung Chali remains locally oriented.
Contribution to the City’s Economy	Small-scale, largely community-based.	Large-scale, generating revenue at both state and international levels.	Melaka has a greater impact on the economy.
Types of Tourists	Primarily domestic and local visitors.	Both international and domestic tourists.	Melaka enjoys global recognition, while Tanjung Chali is more regional in scope.

#### 4.4. Environmental Sustainability

The aspect of environmental sustainability also reveals significant differences between Tanjung Chali and the Melaka Riverfront. In Tanjung Chali, the river ecosystem largely retains its natural characteristics, with much of the area remaining relatively untouched by intensive development. This condition allows local aquatic flora and fauna to continue thriving, although challenges persist, such as water pollution and the reduction of green spaces due to urban expansion around Alor Setar (Latif & Hassan, 2021). Conservation efforts here are more basic in nature, typically involving small-scale community initiatives and local participation in maintaining river cleanliness.

In contrast, the Melaka Riverfront demonstrates a more systematic approach through river rehabilitation programmes, including cleaning projects, flood control measures, and the integration of green landscapes along the riverbanks within tourism development. These initiatives not only improve the quality of the urban ecosystem but also create a visually appealing environment for visitors (Chong & Tan, 2022). Nevertheless, the main challenge in Melaka lies in balancing environmental sustainability with rapid development, as pressures from tourism activities and infrastructural expansion pose potential risks to the river’s ecology in the long term (Noor et al., 2023).

This comparison highlights that Tanjung Chali holds authentic value through its remaining natural sustainability, whereas the Melaka Riverfront emphasises planned sustainability to support tourism and urban growth. Consequently, both cases illustrate that sustainability approaches must be adaptive—whether by conserving natural heritage or managing modern development in a balanced manner—so that cultural identity and ecological integrity can be safeguarded for future generations.

**Table 4:** Comparison of Environmental Sustainability Aspects between Tanjung Chali and Melaka Riverfront

Aspect	Tanjung Chali	Melaka Riverfront	Comparative Analysis
River Quality	Still exposed to moderate pollution issues.	Experiencing severe pollution due to intensive development.	Both face challenges, but Melaka is under greater pressure.
Conservation Approach	Community-led initiatives (e.g., gotong-royong, awareness programmes).	State government initiatives and large-scale projects (e.g., river cleaning).	Tanjung Chali is more community-based, while Melaka relies on formal projects.
Integration of Natural Landscape	Retains some natural elements and green spaces.	Much reclaimed for commercial development.	Melaka is more modern but less green, whereas Tanjung Chali remains more organic.

#### 5.0 FINDINGS SUMMARY

The comparative analysis of Tanjung Chali and the Melaka Riverfront demonstrates that cultural landscape preservation is a multidimensional effort requiring the integration of economic, cultural, ecological, and social strategies. From the perspective of economic viability, Melaka Riverfront has achieved greater success due to strong tourism-driven development and diversified income streams, whereas Tanjung Chali remains underutilised with potential for economic revitalisation through heritage-based tourism. In terms of cultural heritage, both sites showcase unique narratives—Melaka with its world heritage recognition and Tanjung Chali with its strong connection to traditional Malay identity—yet differ in their scale of documentation, promotion, and institutional support.

With regard to ecological sustainability, Melaka demonstrates more structured river rehabilitation and urban greening efforts, while Tanjung Chali highlights the need for more systematic environmental planning. Finally,

the integration of tangible and intangible resources reveals that Melaka Riverfront successfully combines built heritage with cultural practices such as festivals and performances, whereas Tanjung Chali is still at an early stage, requiring stronger community involvement and policy support.

Overall, the findings indicate that while Melaka Riverfront stands as a model of integrated cultural landscape management, Tanjung Chali offers opportunities for developing a more place-based and community-driven approach that safeguards identity, enhances resilience, and aligns with sustainable development goals (SDGs).

## 6.0 CONCLUSION

The comparative study between the cultural landscapes of Tanjung Chali and the Melaka Riverfront underscores that cultural landscapes are not merely physical spaces, but rather serve as vessels of collective memory, identity, and social interaction. From a theoretical standpoint, this research strengthens the framework of cultural landscape studies by emphasising the triadic relationship between people, nature, and heritage, while positioning the landscape as a social text that reflects the interactions between communities and their environments across time. The findings further demonstrate that the preservation of cultural landscapes must extend beyond physical structures, prioritising the integration of symbolic, historical, and local traditional elements.

From a practical perspective, the study provides strategic guidance for planning and conservation. The Melaka Riverfront demonstrates the effectiveness of a development model that integrates heritage with tourism-driven economic growth, whereas Tanjung Chali highlights the potential of community-based development that is inclusive and rooted in local identity. However, both sites face distinct risks: Tanjung Chali risks marginalisation in the absence of sustainable development strategies, while the Melaka Riverfront risks losing its authenticity under excessive commercial pressures.

Based on these findings, several policy directions are recommended to guide future heritage waterfront management in Malaysia. First, urban planning frameworks should integrate cultural identity and local narratives as core components of waterfront development. Second, community-led management committees should be established to ensure local participation and shared responsibility in conservation activities. Third, sustainable tourism strategies should be implemented to balance economic growth with the safeguarding of cultural authenticity. Finally, digital technologies and educational initiatives should be leveraged to enhance public awareness, documentation, and transmission of heritage values across generations.

In relation to the Sustainable Development Goals (SDGs), this study contributes to:

- SDG 11 (Sustainable Cities and Communities): through the preservation of resilient and inclusive urban heritage.
- SDG 4 (Quality Education): by generating academic knowledge that frames cultural landscapes as learning resources.
- SDG 17 (Partnerships for the Goals): through recommendations for collaboration between government, communities, and the private sector in heritage management.

Overall, this study demonstrates that cultural landscapes serve as a bridge between theory and practice. Theoretically, it advances the understanding of the human–nature–heritage nexus; practically, it provides a foundation for policy and conservation strategies. Nevertheless, the continuity of preservation can only be secured through adaptive approaches that balance identity, development, and sustainability.

Thus, cultural landscapes should not be regarded solely as remnants of the past, but as strategic assets for the future. Without inclusive planning, sites such as Tanjung Chali risk further marginalisation, while the Melaka Riverfront risks losing its original spirit. Accordingly, future research should explore socio-economic dimensions and the integration of digital technologies in conservation, ensuring that these cultural legacies remain meaningful and are transmitted to future generations.

## ACKNOWLEDGMENTS

This study was funded by the Ministry of Higher Education (MOHE), Malaysia, under the Fundamental Research Grant Scheme for Early Career Researchers (FRGS-EC 2024-0137-108-52) and Universiti Pendidikan Sultan Idris.

## REFERENCES

- Amir, A. R., Nur'hidayah, D., Mohd, A. N., Afzal, A., & Yukihiro, M. (2020). An assessment of place attachment in Melaka from tourists' perspectives and ICT. *GEOGRAFI*, 8(2), 48–65.
- Amir, T., Rani, W., & Wahab, M. (2020). Regenerating the identity in historic waterfront: A case study of central market waterfront, Kuala Lumpur. *IOP Conference Series: Earth and Environmental Science*, 409(1), 012001.
- Asriana, N., Khidmat, R. P., & Jaya, M. A. (2024). Syntactic analysis of traditional houses in urban kampung. *Journal of Urban Architecture Studies*, 12(1), 44–59.
- C40 Cities. (2019). Revitalising the Kuala Lumpur Klang River waterfront into resilient sustainable pedestrian areas. *C40 Cities Reports*.
- Chong, L. Y., & Tan, K. W. (2022). Urban river restoration and tourism development: The case of Melaka River. *Journal of Environmental Planning and Management*, 65(7), 1289–1305.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (3 ed.). Thousand Oaks: Sage publications.
- Haron, N. (2021). Local economy and community resilience in Malaysian traditional waterfronts. *Journal of Heritage & Society*, 5(2), 33–48.
- Huda Ruhizar, N. N., Harun, N. Z., & Zakaria, S. M. (2021). The benefits of traditional Malay architecture in the traditional settlement. *Frontiers in Built Environment*, 7, 1–12.
- Hussain, M. A., Yunos, M. Y., Ismail, N. A., Ariffin, N. F., Ismail, S., & Qianda, Z. (2022). Investigating the challenges faced in designing cultural landscape at Pantai Lido urban waterfront, Johor Bahru, Malaysia. *GeoJournal of Tourism and Geosites*, 41(2), 376–386.
- Hussain, M. A., Yasir, A. S., Kamaruzaman, M. Y., Raji, M. N., Basri, A. Q., Hanapi, Z., & Yunos, M. Y. (2024). Impacts of outdoor landscape on early learning: Insights from the NCDRC kindergarten at UPSI. *International Journal of Design & Nature and Ecodynamics*, 19(4), 1187–1194. <https://doi.org/10.18280/ijdne.190409>
- Hussain, M. A., Kamaruzaman, M. Y., Abdul Raji, M. N., Basri, A. Q., Mamat, A. B., Basir, J. M., & Yunos, M. Y. (2025). *A review on the role of function landscape in encouraging the psychomotor and cognitive development of pre-school children*. Indonesian Journal of Geography, 58(2), Article 97653. <https://doi.org/10.22146/ijg.97653>
- Ibrahim, I., Bas, A., & Zakariya, K. (2023). Cultural heritage and urban tourism in historic cities: Case study of Melaka, Malaysia, and Istanbul, Türkiye. *Journal of Architecture, Planning and Construction Management*, 13(2), 25–42.
- Ismail, R., Yusof, A., & Chen, L. (2022). Heritage tourism and waterfront regeneration: Economic impacts of Melaka Riverfront. *Asian Journal of Tourism Research*, 7(1), 88–105.
- Iqbal, T., Rani, W., & Wahab, M. (2020). Regenerating the identity in historic waterfront: A case study of central market waterfront, Kuala Lumpur. *The 1st International Conference on Urban Design and Planning* (pp. 1-11). Kuala Lumpur: IOP Publishing. doi:doi:10.1088/1755-1315/409/1/012001
- Latif, N., & Hassan, R. (2021). Community-based environmental stewardship in Malaysian riverfront settlements. *Journal of Sustainable Environment*, 9(2), 44–59.
- Lim, J., & Ahmad, F. (2023). Commercialisation and authenticity in historic waterfront destinations. *International Journal of Heritage Studies*, 29(4), 512–528.
- Liu, T., Yunos, M. Y., & Muthuveeran, A. A. S. (2024). *Cultural elements' influence on visual preferences in urban waterfronts' walkways in Malaysia*. *Frontiers in Built Environment*, 10. <https://doi.org/10.3389/fbuil.2024.1393187>
- Noor, M. A., Iskandar, A., & Lim, S. H. (2023). Balancing ecological sustainability and heritage tourism in historic waterfront cities. *International Journal of Heritage and Sustainable Development*, 4(1), 73–89.
- Nursaniah, C., Ibrahim, M., Sari, D. A., & Yusran, R. (2021). Safeguarding cultural heritage site: Comparative study for establishing conservation initiatives on Indrapatra Fort, Aceh Besar. *Planning Malaysia*, 19(2), 1–14.
- Rahman, N. A. (2022). Cultural heritage and urban design: Challenges of maintaining traditional waterfront settlements in Malaysia. *Journal of Built Environment and Heritage Studies*, 4(2), 55–70.

- Rose, R. A., & Ghani, S. A. (2020). Perancangan dan pengurusan landskap di Klebang, Melaka. *Malaysian Journal of Society and Space*, 16(2), 95–109.
- Ruhizar, N. N. H., Harun, N. Z., & Zakaria, S. M. (2021). *The benefits of traditional Malay architecture in the traditional settlement*. *Geografia-Malaysian Journal of Society and Space*, 17(4), 74-89.
- Shamsuddin, S. (2011). *Townscape revisited: Unravelling the character of the historic townscape in Malaysia*. Skudai: UTM Press.
- Traboulsi, C., Khalifa, M., El Samahy, E., El-Daghar, K., & Felix, M. (2023). *Urban Waterfront Revitalization through Landscape Design Enhancing Social-Cultural Conditions of El-Mina, Tripoli*. *Architecture and Planning Journal (APJ)*, 29(1). DOI: 10.54729/2789-8547.1189
- Ujang, N., & Zakariya, K. (2015). The notion of place, place meaning and identity in urban regeneration. *Procedia – Social and Behavioral Sciences*, 201, 709–717.
- Wee Kah Man, A. (2023). Adaptive reuse and authenticity: Promoting urban conservation in Melaka’s historic town. *Journal of City: Branding and Authenticity*, 1(1), 24–41.
- Xie, C. (2023). *The symbiotic development of urban waterfront spaces and regional culture: Unleashing potentials, innovative design, and sustainable development*. *Journal of Innovation and Development*, 3(2), 26–30. <http://dx.doi.org/10.54097/jid.v3i2.9144>
- Ying, L., & Hassan, R. (2023). Assessing the social values of historical waterfront: A case study of Sungai Petani, Kedah, Malaysia. *Planning Malaysia*, 21(30), 13–28.
- Yin, R. K. (2014). *Case study research : Design and methods* (5th ed.). Thousand Oak : Sage Publication.