Designing Urban Rivers as National Heritage: A case study of Sungai Kelang and Sungai Gombak, Kuala Lumpur, Malaysia

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Abstract. Rivers were places where civilizations arose and aided the foundations of their economic fortunes. However, most urban rivers have today been abused and undervalued, and thus little conserved or re-opened up to celebrate these waterways. Malaysia is one of a number of countries whom have witnessed the former. In 2011, the River of Life (RoL) Entry Points Projects (EPP) was introduced to address this issue aimed towards revitalizing the Klang River into a heritage riverscape and a reinvigorated linear commercial centre for Greater Kuala Lumpur and the Klang Valley (GKL/KV). This paper discusses the heritage fabric at the confluence of the Klang and Gombak Rivers in portraying and narrating the importance of these rivers to the cultural identity of this precinct. Recognising these qualities will result in highlighting the cultural heritage values that need to be considered in recognizing this riverscape as a National Heritage asset. This paper also explored the historical and potential elements of the urban river in Malaysia through the mix method approach (Convergent Parallel). Research data was obtained from Malaysian authorities, using a top-down approach, through interview and visitor participant questionnaires to obtain convergence and divergence perceptions and patterns between these two sources of data. Data obtained sought to elucidate the cultural identity of this urban riverscape and its fabric from the perspective of both official participants perceived responsibilities and the interpretation of the riverscape from local respondent perspectives. The results of data from both participant types is crucial in offering new viewpoints towards a new to better adapt the government’s visions and visitor expectation about the future of this riverscape. This information could better enhance the tourism aspects of this area that has been highlighted as ‘National Key Economic Area (NKEA) 06: Tourism’, and to foster the integration of cultural heritage in an urban setting.

1. Introduction
A river runs through almost every city in the world and is the lifeline of its urban area [1]. Starting with a traditional settlement, the area closest to the river bank in these settlements then progressively developed into town and then city. However, actions taken for an urban regeneration program in cities commonly and implicitly concentrating upon aesthetic enhancement, and ignores the heritage values of the riverscape that contributes to the city’s and community’s identity [2,3]. Hence, the importance of urban riverscapes have been undervalued internationally [1,4].
In reference to the Old Town of Kuala Lumpur, the Klang and Gombak Rivers are the most crucial elements that should be conserved as both riverscapes contributed to and informed the history of Kuala Lumpur. While protecting the Masjid Jamek from urban development, these rivers also carry high historical values for Kuala Lumpur. In 2011, a new government program known as the Greater Kuala Lumpur/Klang Valley (GKL/KV) was introduced as an initiative under the National Key Economic Area 2020 (NKEA2020). One of its Entry Points Projects (EPPs) is for Revitalising the Klang River into a Heritage and Commercial Centre for GKL/KV [5]. This new development project, named as EPP 5: River of Life (RoL), sought to ensure that any future development of and adjacent to the RoL respected the existing local heritage. The RoL envisaged that once the rejuvenation project was completed, the confluence of the Klang and Gombak Rivers “will serve as one of the focal points for urban recreation in the city” and surrounded by “significant historic assets” [6,7].

Under this initiative, involving the community in the designation process was crucial in increasing community awareness of the importance of the heritage and local identity of these rivers and to ensuring the successfulness of enhancing the recognition of these urban riverscapes as Malaysia’s national heritage. It is therefore considered necessary to investigate the preferential variances between government authorities, non-government organisations (NGOs) and visitors regarding the RoL project in terms of atmospheric/aesthetic, heritage elements and the beautification approaches. It is hoped that by connecting the community in the process, the responsibilities and possessions amongst the community will be increased.

1.1. Purpose of the study
The purpose of this study was to investigate and highlight the importance of designating the urban riverscapes as a National Heritage item drawing upon evidence from two groups of participants – local authority and heritage practitioner points of views – and visitors’ perceptions of the RoL that they experience. From this investigation, it will aid in the identification of cultural heritage elements that need to be conserved in narrating these urban riverscapes as a National Heritage asset.

1.2. The objective of the study
This study identified the extant landscape fabric elements that contribute to the historical values of the urban riverscape, that indicate the historical aspects of the urban riverscape that aid in promoting Malaysian heritage tourism, and that highlight elements that need to be taken into consideration in designating this urban riverscape as a National Heritage asset.

2. Literature Review
Knowing the importance of urban rivers to society, few countries have taken a comprehensive approach to conserve these valuable elements. These countries include Canada, with the establishment of the Grand River Conservation Authority (GRCA), the United States (USA) with the American Heritage Rivers organization, and the Canal & River Trust in the United Kingdom (UK). In Canada, for example, the first river that was recognized as a ‘Heritage River’ was the Grand River and its major tributaries in south-western Ontario. These rivers were designated as ‘Canadian Heritage Rivers’ in 1994. The main purpose of GRCA was to “conserve and protect the best examples of Canadian river heritage, to give them national recognition and to encourage the public to enjoy and appreciate them” [8]. This recognition designation not only promoted the recreational activities of the riverscape but also acknowledged the area’s rich history and the watershed’s historic sites and artefacts that were dotted along the Grand River. Today, the Grand River has become a centre for tourists looking to experience for appreciating and engaging in local experiences and heritage.

Canada is not the only country that gained benefits from the recognition of urban rivers. In the USA, the recognition of urban riverscapes as a heritage asset started in 1998 with the recognition of 14 rivers as American Heritage Rivers. These rivers, which are protected under the American Heritage Rivers Protection Program (AHRPP) were listed because of their outstanding values on the basis of their environmental, economic, cultural and historical aspects and values [9]. Amongst the aspects and values,
historical aspects were highlighted as the key to their recognition. As stated by President Clinton in 1998, “the designation does help identify rivers of historical importance” [10]. Because of these designations, these recognitions have provided unique advantages for communities to promote their natural and heritage tourism values. Most importantly, such designations laid the foundations for strong public-private-partnerships (PPP’s) in conserving their Heritage Rivers [11].

In addition, the UK has also gained benefits from the designation of urban rivers. Under the Canal & River Trust today, more than 3220 km of waterways are protected. The Trust believes that by safeguarding the canals and rivers, it can help to connect their history with their community. Strategically, the Trust helps to create a healthy community because “historic waterways are the antidote to the congested and crowded urban areas” [12]. Although the Trust was only established in 2010, the conservation recognition of the UK’s waterways started in the 1960s. Today, some 320 km of new and restored waterways have been successfully added to the British Waterways List.

In addition to the approaches taken by these countries, several well-known international organizations are also dynamically promoting the importance of urban rivers. Under the UNESCO-listed World Heritage Places (WHP) program, there have been a few properties listed that recognize the importance of the cultural heritage values of urban riverscapes. Amongst these World Heritage Listed properties are the Pontcysyllte Aqueduct and Canal that carries the Llangollen Canal across the River Dee in the Vale of Llangollen in north-east Wales; the Old Town of Segovia (Spain) and its Aqueduct, one of the best-preserved elevated Roman aqueducts and the foremost symbol of Segovia; the historic centre of Florence, being part of quartiere 1 of the Italian city of Florence; and, the Banks of the River Seine in Paris, France. All these four WHP designations emphasize the significance of rivers or waterways as a key part of their Outstanding Universal Values (OUV), as expressed in UNESCO’s Operational Guidelines for the Implementation of the World Heritage Convention (2017), and authenticity of the sites as expressed in UNESCO’s Nara Document on Authenticity (1994). For example, the Arno River that flows through the Historic Centre of Florence significantly contributes to enhancing and safeguarding Florence’s unique historical and aesthetic qualities [13]. For Paris, the Banks of the Seine, the unique character of the River Seine riverscape, has been recognized as the core component that acts as the central (lineal) node to all historical elements in the city of Paris [14]. For the residents of Paris, the River Seine is the “real essence of the city of Paris” [15].

In addition to the historical values, heritage rivers also provide recreational space and area for the local residents and the tourists. Therefore, the design of the riverspace is also crucial in enhancing the historical values of the heritage river, and at the same time accommodate activities and aesthetic pleasure to the urban community [16]. Visual integration from the living vegetation and ambient sound from the rivers are among the elements that could provide aesthetic pleasure to be experienced by the visitors [17]. As mentioned by Smardon (1988) and Jeon (2012), the use of living vegetation could improve visual and sensory quality of the urban atmosphere whereas the sound of water significantly improved pleasantness to the users [18,19]. Therefore, the promotion of these notable elements in urban riverscape’s will create unique relationship between the community and the river including the heritage and cultural value of the area [16,17].

These worldwide efforts demonstrate that urban rivers are significant to urban health and urban wellbeing, and a key part of a community’s assets in a city, respectively, that needs to be cherished [1]. Research by the Canal & River Trust evidences that properties located close to well-maintained heritage-designated waterways are worth up to 20% more in value [12]. Hence, the authenticity of an urban river and its historical values need to be conserved to ensure prolonged benefits to society, including economic benefits and local identity characterisation.

2.1. Sungai Kelang and Sungai Gombak and the formation of Kuala Lumpur
Since the early 1850s, Malay settlements already existed near the confluence of the Kelang and Gombak Rivers in what is now called Kuala Lumpur. These river banks used to grow food and adjacent residents collected jungle produce [20,21]. Because there were only jungle tracks accessing this locality, these rivers became the villager’s main routes for trade and communication. In 1857, the atmosphere of this
area started to change when Raja Abdullah bin Raja Jaafar sent a party of eighty-seven Chinese miners from the mines in Lukut to work near the Gombak River. The mining party disembarked at the Klang-Gombak River junction, and the spot thereupon cleared enabling traders to build huts and to establish shops for the miners. The tin mining industries in Kuala Lumpur were in their boom years in 1878-1879 when the price of tin rose rapidly internationally. At the time, the east bank of the Klang River became the main trade centre for the region. This place became known as ‘Kuala Lumpur’, literally meaning “muddy confluence” in Malay, from the river junction to a kilometre away, and “the site proved to be a good one” [22,23]. The British colonial official in British Malaya, (Sir) Frank Swettenham, during his visit of 1875, noted that “a number of good shops, both Chinese and Malay, and quantities of boats” in the town of Kuala Lumpur [24]. The town was primarily a trade centre and a link between the mines and the port of Klang.

A figure “Y”, from the confluence of the rivers, divides the town into three approximately equal portions. When European officials and colonial government offices moved from Klang to Kuala Lumpur in 1880, the residential and functions divisions were clearly divided into three main communities; the western portion for the Europeans, the triangle land for the Malays, and the east bank of the Klang River for the Chinese [20,25] (Figure 1.). Bridges were built to link the government buildings on the west bank that was separated from the main commercial town area by the River. Land along the river banks was also improved. In 1887 Swettenham, in his Annual Report to the UK Parliament, mentions that “the unsightly wooden premises at the backs of the houses abutting on the river have been removed, and the muddy bank where they used to stand has been turfed” [24].

In addition to developments near the river banks, the river channels were also subject to improvements. The riverscape of Kuala Lumpur has been continually altered and widened since 1884. This was after a series of floods which had taken place in Kuala Lumpur. The major problem river improvement actions facing was the winding course of the Klang River. In 1926, the drastic action of straightening the river channel was undertaken. The flood that subsequentially took place in December 1926 was considered as “the mother and father of all floods” [20]. Hence, the channel was interpreted as an effective outlet for floodwaters coming down from the hills catchment above Kuala Lumpur. Since then, Kuala Lumpur is no longer handicapped by swamps and flood issues.
2.2. The importance of conserving the rivers and its urban fabric

In 2005, the Sungai Klang was listed as one of the eleven most polluted rivers in Malaysia. It had a Water Quality Index (WQI) of “Level IV: Only for irrigation purposes and slightly polluted” [27]. The issue of the “poor water quality of the City rivers” was also highlighted in the Kuala Lumpur Structure Plan 2020 (KLSP2020) [28]. This issue expedited the policy task of rejuvenating the environmental conditions of the Rivers and riverscapes.

The restoration process for these rivers has been informed and guided by the Kuala Lumpur Structure Plan 2020 (KLSP2020), and the Draft Kuala Lumpur City Plan 2020 (DKLCP2020). Improvements to the Klang and Gombak riverscapes, in both Plans, is articulated as a priority focus, respectively, and this is thoroughly discussed under Strategic Direction 8.4 – Designating River Corridor Activity in the DKLCP2020. Under this Strategic Direction, the confluence of these two rivers was embraced inside Zone A: Active Zone where “the existing shophouses along this stretch will be encouraged to develop riverfront al fresco activities and the roads running alongside Sungai Gombak will be pedestrianized” [29]. However, throughout the DKLCP2020, the main aim and written narrative is more towards beautification enhancement and the water quality control rather than holistically guiding this precinct incorporating its cultural heritage values. At the moment, there is no strategic plan that addresses conservation of historical values and elements for the area.

The River of Life (RoL) project is one of the latest approaches taken by the Malaysian national government towards enhancing the urban ecosystem of Kuala Lumpur. A RoL project, that took place in 2011, clearly stated that one its aims was to “enhance the history of the city through specialized conservation” [30]. Completed in December 2017, this RoL project included conservation of the heritage buildings along or near these rivers. These buildings included the Bangunan Sultan Abdul Samad (Sultan Abdul Samad Building), the Sultan Abdul Samad Jamek Mosque or the Masjid Jamek, and shophouses. However, the actual on-ground approach taken in implementing this aim was more towards beautification, connectivity, and improving the accessibility of and to the area. To enhance the focal point of the historic Masjid Jamek, a fountain with fog and lighting effects was installed in the river watercourse. Fortunately, the reconstruction of a grand staircase located at the river confluence, that had been hidden for decades, was conserved highlighted the historical value of the Masjid Jamek building (Figure 2).

![Figure 2. River of Life (RoL) project: before & after riverscape improvements (Source: http://www.constructionplusasia.com/river-of-life-phase-1/) [31].](image)

To ensure the cultural heritage sustainability of this area, the ‘Y’ spaces created by the confluence between the rivers need to be conserved together with the riverscapes because these spaces represent the beginning of Kuala Lumpur. For the Masjid Jamek, this mosque was saved from potential demolition threats because it is built on a “highly symbolic site of the junction of the Klang and Gombak rivers” and was clearly highlighted in this RoL Project as a key asset of the landscape [32]. In addition, the site is also bounded by the Sultan Abdul Samad Building and blocks of government offices on the west side of the Sungai Klang. This government building precinct is also securely heritage protected because these buildings have been included in the National Heritage List (Heritage Site Category) since 2007.
However, rows of shophouses on the east side of the rivers, that once symbolized the wealth and status of the rich merchants, face an uncertain future. Under the DKLCP2020, these shophouse rows are listed as Category 3 that recommends that they need to be conserved, and as Non-heritage buildings. Hence, these three confined spaces occupied by these shophouses crucially need to be designated as heritage buildings together to enhance the conservation of both historical structures as well as the urban landscape precinct of this area [7,33]. Once these spaces are integrated, future development will respect the existing heritage, incorporate it within current needs, thereby enhancing these historical structures and the overall urban heritage landscapes in this area.

3. Methodology
The methodology for this study comprised the formation of objectives, data collection, analysis, findings, and urban planning suggestions. This study applied mixed methods by adapting the Convergent Parallel Design where qualitative data (interviews) and the quantitative data (questionnaires) were analyzed independently, and data merged during the overall interpretation and analysis of the data. This methodological approach ensures that the results document and obtain the necessary convergence and divergence elements between these two sources of data.

3.1. Data collection
This stage involved the development of the data collection instrument (field notes, interviews and questionnaires) and the establishment of networks and ground setting analysis of the Old Town of Kuala Lumpur that included identifying the potential participants, and the authorities. Data obtained from this stage was documented and analyzed.

To increase the validity of the data, the findings were tested on participants during the interview sessions. Sets of question were prepared that included a specific theme on the historical aspects of the riverscape including guidelines, conservation issues and the acceptance of the idea of designating this riverscape holistically as a heritage area. Sixteen participants were selected from Local Authorities of Kuala Lumpur (KLLA), government organizations (GA), non-government organizations (NGOs) together with professional practitioners involved in heritage conservation activities in Kuala Lumpur. The involvement of top-down participants was crucial as these are the individuals directly involved in the decision-making processes that curate the existing and future riverscape environment.

Further, a set of questionnaires was drafted for application to local visitor respondents that represents a bottom-up participant group. This questionnaire involved three main components; respondent’s background, their understanding of the RoL project; and their perceptions about their preferable character of the RoL in promoting Kuala Lumpur’s local cultures and identity. Respondents involved in this survey were 106 participants and all respondents were local Malaysian visitors.

3.1.1. Analyzing the data. Data obtained from this stage was transcribed using the Conversation Analysis (CA) technique. Transcriptions were then analyzed using Discourse Analysis (DA) to map and obtain participant perceptions and how these participants related to the implementation of urban heritage river in Malaysia. For the questionnaire, data was analyzed using the Statistical Package for the Social Sciences (SPSS) software and subsequently interpreted.

4. Findings
4.1. Qualitative finding: Designating urban rivers and its surrounding as the National Heritage
From the results, participants agreed that Sungai Gombak and Sungai Kelang are one of the most significant elements that should be listed under the National Heritage List because both riverscapes, from their perceptions, contribute to the history of Kuala Lumpur. However, these rivers need to be designated together with their historical context and not just as watercourses. As stated by one participant, “the history of a place is not only about one single building or space … but, the whole area” (PP1). Upon thorough historical analysis, it is possible to interpret a connection between one historical
element to another (PP1, PP2, NGO2). However, most of the participants were very concerned about the future of this historical space or place or riverscape because the majority of the conservation works undertaken in Malaysia to date mainly focus only upon individual buildings. Thus, precincts, landscapes, plazas or public spaces like the colonial Padang (renamed ‘Dataran Merdeka’ or Merdeka Square) in Kuala Lumpur [33–35].

Participants believed that the designation process of a historical space or place is possible, and that it may take considerable time for this concept to be accepted in policy and occur in practice because the approach is still new in Malaysia (PP2, NGO1, NGO2). It is quite clear that government acceptance and involvement as the primary party, together with the collaboration of heritage experts, will assist in enabling the widening of the designation process and the scope of what is considered to be ‘national heritage’ in Malaysia. Further, “the thinking of conservation among Malaysians will become greater because you are not only concern about the individual heritage element, but the impact of that particular element to the rest of the area” (PP3).

4.2. Quantitative results: RoL Project - Heritage or aesthetic enhancement?

Findings from the survey conducted evidenced that most respondents (N = 106) were female (58.6%), and aged between 20 – 24 years old (62.3%). Half of the respondents were first time visitors to the RoL site (50%; n = 54), while the other half had visited the site more than once. Most (77.4%; n = 82) respondents agreed that the RoL project has successfully enhanced the atmosphere of the area. Almost all respondents preferred to visit the RoL area during night time (92.45%; n = 98) (Figure 3). The lighting effects and night activities were articulated as the main reasons by the respondents regarding their preferable visiting time.

Almost half of the respondents strongly agreed that heritage buildings located surrounding the RoL project added historical values to the site (49.1%: n = 52). Amongst the heritage buildings (including the Masjid Jamek, rows of shophouses facing the rivers, and the government precinct buildings), highest recognition was given by the respondents to the Masjid Jamek. Some 43.4% respondents were in strong agreement, and 37.7% agreed that Masjid Jamek is the main cultural attraction of the RoL project. This result was followed by the government precinct (Strongly agreed = 26.4%, Agreed = 47.2%). However, for rows of shophouses, only 17% of respondents strongly agreed that the buildings are contributing to the historical values of the area, whereas 35.8% of respondents disagreed (Figure 4).
From the list of elements that contributed to the successful of the RoL’s project – the rivers (Sungai Gombak and Sungai Kelang), vegetation, urban design, activities, and cultural values – almost all respondents acknowledged the Sungai Gombak and Sungai Kelang rivers as being the main contributors to the project, with 73.6% in agreement (n = 78) and 22.6% in strong agreement. For cultural values, 45.3% were agreement and 37.7% were in strong agreement. Vegetation and human activities were elements that less valued by the respondents (Figure 5.).

**Figure 4.** Heritage buildings preferences of River of Life (RoL) visitors

**Figure 5.** Preferable elements of River of Life’s (RoLs)

### 5. Conclusion

Urban rivers are a hidden component of Malaysia’s cultural heritage fabric. This study highlighted the merit and potential of an urban riverscape for consideration to be declared as ‘heritage’ for Malaysia. In addition, such a designation can aid its holistic conservation towards indirectly enriching the riverscape’s cultural heritage interpretation validating its merit for incorporating into Malaysia’s development plan. Significantly, a new platform could be established thus bridging the gap between the current practice and knowledge of cultural heritage conservation by Malaysia and international organizations. Given this point, through proper conservation planning and meritorious consideration from the national government, this study points to an initiative that could substantially aid both Malaysian and Kuala Lumpur’s cultural heritage tourism profile thereby further assisting in generating income for the local community and proving worth that cultural heritage can contribute positively to the economics of a local economy [36].

The designation of the urban river may contribute to the sense of pride of residents whilst increased the sense of belonging and appreciation to the historical aspects of the place. This will automatically
ensure the residents will become more sensitive to changes that could alter the originality of the area. Peoples who live in areas rich in historic elements usually, tend to have a stronger sense of place. Through this prolonged attitudes, the future of the urban rivers will be brighter with the support from the community. Moreover, the economic aspects may also increase as tourists nowadays are interested in visiting countries that rich with historical elements. Thus, this will help to generate income to the community through a business that involves the tourism sector. Hence, it will help to foster the economy for the region and the country. For the nation, the recognition of urban river as part of the Malaysian unique identity may help to introduce Malaysia to the world. By adding 'Urban River Heritage' as a new tourism product of Malaysia, this may attract attention either from local or international people. Since Malaysia is rich in urban rivers, this should be taken as potential opportunities to the country.

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