CONTRASTING GLOBAL IMAGERY TO LOCAL REALITIES IN THE POSTCOLONIAL WATERFRONTS OF MALAYSIA’S CAPITAL CITIES

Quentin Stevens *, Marek Kozlowski ** and Norsidah Ujang **

* School of Architecture and Design, RMIT University, Melbourne, Australia
** Department of Architecture, Universiti Putra Malaysia, Serdang, Malaysia

Corresponding Author’s email address: quentin.stevens@rmit.edu.au

Abstract
Urban waterfront redevelopments are often about image-making for economic and political gain. This article analyses three major recent waterfront projects within the Kuala Lumpur metropolitan area: Kuala Lumpur City Centre, the River of Life, and Lake Putrajaya. All have been important in projecting an image of a modern, developed, postcolonial Malaysia. The article examines these waterfront landscapes in relation to three key themes: their contribution to the overall city image, to economic development, and to ecological performance. The article draws upon policy documents, project plans, interviews with local policymakers, designers and academics, field observation of the current physical development, land use and social use of the three waterfront precincts, and a mental mapping survey of users’ cognitive images of how these precincts fit within the overall city image. Analysis shows that the appearance, use and development process of these three waterfront projects draw heavily on international models. The article suggests several waterfront sites and uses within the three projects that indicate a more authentic local paradigm for urban waterfront development.

Keywords: Waterfront; Redevelopment; Representation; City Image; Environment; Malaysia

INTRODUCTION
The redevelopment of urban waterfront areas for non-industrial uses has been driven by a wide range of economic, social, and environmental objectives (Breen and Rigby 1996). It also has aesthetic and representational aims. Existing research into flagship waterfront development projects in Western cities highlights three key representational aims. Firstly, it often emphasizes the key role these areas can play in transforming the wider image of cities, both literally and metaphorically (Marshall 2001, Dovey 2005). Secondly, the redevelopment of waterfronts for new residential, commercial, and leisure uses typically aims to both display and facilitate a transition to a post-industrial economy. Waterfront plans tend to be driven by economic imperatives that prioritize real estate investment and leisure and tourism uses, both internationally focused (Sandercock and Dovey 2002, Desfor et al. 2010). Thirdly, this is often coupled with ambitions to demonstrate environmental remediation and enhanced ecological sustainability in formerly-industrial waterfront areas, although there are criticisms of the limited environmental benefits of such transformations and which socio-economic groups they serve (Stevens 2010, Hagerman 2007, Bunce 2009).

For newly-developing countries in the global East and South, flagship waterfront redevelopments also often seek to showcase nations’ transitions away from their colonial pasts; urban ports were typically a key locus of exploitative colonial-era trade. Studies of waterfront transformation projects in Hong Kong (Law 2002), Singapore (Chang et al. 2004) and the Caribbean (Dodman 2007, Gidel 2010) suggest that waterfront projects that try to assert a new, local identity and a new economic trajectory for a city and a nation paradoxically often draw upon international...
consultants, international planning approaches and architecture, and international financing. Locally-driven waterfront transformations appear to privilege the interests, activities and self-image of newly-dominant local elites and ignore the needs of existing waterfront residents and workers (Dodman 2007). Projects that ostensibly seek to reintegrate the city and its waterways and to create new, socially-inclusive urban spaces often paradoxically increase social and spatial fragmentation. There is broad agreement that the imagery of waterfront redevelopments in Southeast Asia and elsewhere is largely generic, inauthentic, and detached from their cities’ wider economic vitality (Savage et al. 2004, Chang et al. 2004, Dovey 2005, Chang and Huang 2010).

There is growing international interest in the environmental remediation aspects of contemporary urban waterfront development (Desfor and Laidley 2011). But many waterfront projects involve the creation of entirely new, artificial landscapes, often by filling into waterways. These landscapes are carefully tailored to particular consumer interests, and have little connection to either local history or ecology. In tropical regions, the redevelopment of waterfront areas for new urban leisure uses is often argued to be a desirable makeover of “unhealthy, repulsive swamps and mangroves” (Gidel 2010:35). However, Savage et al. (2004:218) emphasize that while Singapore’s redeveloped river “has become a more ecologically viable and sustainable environment, the motivation was not primarily environmental, but more to sustain a new economic lifeline for... tourism... Keeping the River... aesthetically pleasing”. There is little literature examining the environmental benefits or impacts of urban waterfronts (Savage et al. 2004). Gidel (2010) highlights that goals of improving environmental cleanliness often become entwined with goals of social cleansing. Existing research emphasizes tensions between traditional local waterfront spaces and activities that are ‘authentic’ but unsustainable and insufficiently profitable, and global waterfront transformations that bring investment but obliterate local character.

Within the Southeast Asian context, Malaysia’s waterfronts differ from those in the more widely studied island city-states, Hong Kong and Singapore. In those cases, significant population and economic pressures drive the production of new waterfront land, which has been going on for many decades. Singaporean respondents in a survey by Chang and Huang (2010) cited the Malaysian waterfronts of Malacca and Kuching as having retained local image and lifestyle better than Singapore’s efforts to present a ‘world class’ waterfront. The inland waterfronts of Malaysia’s largest urban area, Kuala Lumpur, have developed later and more quickly than Hong Kong’s and Singapore’s.

BACKGROUND
Kuala Lumpur was founded in 1857 at the confluence of the Klang and Gombak Rivers. Historically, the Malay settlement concentrated northeast of the junction. The city’s oldest mosque, Masjid Jamek (1909), was built at the rivers’ confluence, on the site of the city’s first Malay burial ground. The Chinese neighborhood was to the south, around Petaling Street. The British administration occupied the Klang River's west bank. As the rivers’ role as transport corridors declined after 1911, squatter developments spread along the derelict riverbanks. Major floods in 1925 and 1971 killed thousands. Planners relocated the squatters. Concrete channelling for flood mitigation blocked visual and physical access to the rivers. Later, new elevated highways, light rail tracks and their stations spanned large sections of the rivers. In the early 1990s the riverfront pedestrian walkways around Masjid Jamek were improved (fig. 1) and urban design guidelines encouraged new buildings to face the river (Shamsuddin et al. 2013, Abu Latip et al. 2009).

In the 1990s, Malaysia’s economy grew rapidly. The federal government began developing Putrajaya, a new administrative capital city 25km south of Kuala Lumpur. This sat within the new Multimedia Super Corridor that stretches a further 40km south to the new international airport (fig.
2). Malaysia’s parliament remains in Kuala Lumpur. The MSC was intended to relieve existing metropolitan growth pressures to the west along the Klang River valley. Putrajaya was intended to be a showplace of post-colonial Malaysian identity (King 2008). The city has 72,000 residents, predicted to increase to 350,000 by 2025. Most federal ministries have relocated there (Putrajaya Holdings 2014).

Figure 1. Masjid Jamek (Mosque) at confluence of Gombak (left) and Klang (right) Rivers, Kuala Lumpur, April 2014. (Source: Authors).

Figure 2. Map of Greater Kuala Lumpur Metropolitan area, Selangor, Malaysia. (Felix Fehr)
METHODOLOGY
This article examines the three largest mixed-use waterfront projects developed in the greater Kuala Lumpur metropolitan area over the past twenty years. The mixed use projects include Kuala Lumpur City Centre (KLCC) and River of Life in Kuala Lumpur, and Lake Putrajaya in Putrajaya. All the three projects are located in the Kuala Lumpur Metropolitan Area (see fig. 2).

Kuala Lumpur City Centre (KLCC) (figs 3 and 4) is a new high-rise downtown area, incorporating the landmark Petronas Towers, a mosque, convention centre, high-end 6-storey shopping mall, Suria KLCC, prestige apartment and hotel towers, and a 20 ha public park with a children’s playground and a botanical garden built over underground carparking (Bunnell 1999). The park was the last major project by renowned Brazilian landscape architect Roberto Burle Marx. The design retained mature trees and contains many indigenous plants (Bunnell 1999). A ‘Symphony Lake’ features fountains programmed to music, and a children’s wading pool. Kuala Lumpur’s planned River of Life (ROL) project (fig. 4), integrated within the Kuala Lumpur City Plan 2020 (DBKL 2012), seeks to revitalize the Gombak and Klang riverfronts in the city centre as a means to stimulate national economic development. EUR 900 million invested in improving aesthetic quality and amenity aims to leverage economic transformation when government waterfront land is ultimately tendered to private developers (MFT 2014). ROL embraces key cultural destinations Kampung Bharu, Masjid India, Masjid Jamek, Pasar Seni (the oldest city market), Petaling Street, and Malaysia’s national space, Merdeka Square. AECOM’s Master Plan (AECOM 2013b) foregrounds ecological, social and economic principles, creating a pedestrian-friendly environment, retaining existing natural landscapes and increasing native tropical vegetation (AECOM 2013b).
Figure 4: Map of central Kuala Lumpur, showing River of Life area and KLCC. (Felix Fehr)

1. Putra World Trade Centre (PWTC)  
2. Jalan Tuanku Abdul Rahman  
3. Jalan Masjid India  
4. Malay Menara  
5. Parliament House  
6. Masjid Jamek (Mosque)  
7. Merdeka Square  
8. Pasar Seni  
9. Bukit Bintang  
10. Petaling Street  
11. National Mosque  
12. National Museum  
13. KL Sentral Railway Station
Lake Putrajaya was developed as the heart of Malaysia's new capital city (figs 5, 6) on a former oil palm plantation. Its master plan by a consortium of Malay consultants and government planners includes 200 ha of terraced wetlands (Moser 2010). Development is regulated by the local authority, Putrajaya Corporation (PP 1997). The technocratic plan segregated land uses. A purely administrative central precinct, essentially a large master-planned office park for government, lines the 4km formal central boulevard, Persiaran Perdana, terminated by the Prime Minister's office and an International Convention Centre on two large hills. Putrajaya’s masterplan provides significant public recreational space along the lake foreshores, including the Botanical Gardens and Taman Wawasan, ‘Vision Park’, Putrajaya’s central park, its name linked to former Prime Minister Mahathir’s vision for Malaysia to attain developed country status by 2020. There is a water-sports complex at the lake’s south end.

Figure 5. Map of Putrajaya. (Felix Fehr)
Our analysis examines the distinctive aims, forms and impacts of these three waterfront schemes. It identifies what international waterfront images and formal models have been chosen as exemplars, from where, and why, and what messages about Malaysian identity and national development these schemes present. The article examines these new Malaysian waterfronts in relation to three leading critiques of the imagery of waterfront redevelopment worldwide, which were identified in our Introduction’s review of the recent literature: waterfronts’ contribution to reshaping the overall city image; the use of waterfront redevelopment visions to attract private-sector investment in real estate and in service industries; and presenting the appearance of improved environmental performance. These facets of contemporary waterfront development in Malaysia indicate that visions of urban form, development and environmental management are perceived as important both for expressing the country’s shifting identity as a postcolonial nation and for impelling its further development.

The article draws together the limited existing data and first-hand analysis to assess the effectiveness of these waterfront landscapes in both representational and performative terms. The evaluation contrasts the representational aspirations of these three waterfront projects against empirical realities of their performance in shaping the urban image, attracting further urban development and employment, and enhancing ecological sustainability. The aesthetic, representational, economic, and environmental objectives underpinning the projects and the formal models that inspired them were gleaned from policy documents, project plans, and interviews with local planners, policymakers, designers and academics who are closely engaged with the projects.
As Savage et al. (2004) note, quantitative and qualitative data and assessments of urban waterfronts are generally limited. In recently-developed nations such as Malaysia, there is a paucity of published historical and current information to track rapid urban and economic changes. Our analysis of the actual impacts of these three Malaysian waterfronts draws together the limited existing empirical studies of the three precincts (Siong et al. 2013, Hassan and Hanif 2012, Shamsuddin et al. 2012, Moser 2010, King 2008, Bunnell 1999). The analysis was extended through first-hand field surveys of the current physical development, land use, social use, and open space management regimes of the sites. These surveys identified the number of existing hotel rooms adjacent to KLCC, the number of eating establishments facing Lake Putrajaya, and the orientation of entry points to major buildings on Putrajaya’s main street. A mental mapping survey of users’ perceptions of central Kuala Lumpur and Putrajaya was also undertaken to determine the significance of the waterfront areas within the overall city image. This involved thirty random pedestrians in each location, including local residents, workers and visitors. At each site respondents were asked to sketch a simple map of the respective city centre area identifying the most recognisable geographical and built form elements. They were also invited to note the elements they recognized within each area.

Analysis of this data identifies tensions between the images and objectives that Malaysia’s governments and property developers pursue through flagship waterfront schemes, and the local nuances of the case studies’ urban fabric, landscape, climate, vegetation, management practices, and the consequent local uses of waterways and open spaces. The conclusion of the paper draws these findings together to reflect on the successes and shortcomings of these three waterfront projects in promoting an authentic post-colonial Malaysian cityscape.

FINDINGS

Our analysis explores three aspects of the urban waterfront image, and how that image responds to international influences and local conditions and customs, considering in turn the contributions these waterfront projects make to the overall city image, to an image of economic development, and to an image of ecological sensitivity. The three paradigms cover issues related to aesthetic qualities, placemaking, people’s perception, economic performance, political decision making and environmental and sustainability aspects.

City Image

These three waterfronts in the Malaysian capitals have important roles in placemaking and place marketing, and in this respect they are consciously similar in purpose and form to waterfront projects in developed countries, which transform inner-urban, previously-industrial areas to present a new image of a city focused on new ‘world class’ residents, businesses and cultural and leisure amenities (Desfor et al 2011, Marshall 2001). Each of these Malaysian waterfronts is proposed as the centerpiece of a wider urban area, fundamental to its image.

Our mental mapping survey for Kuala Lumpur (Table 1) revealed a majority of respondents identified the Petronas Towers as the city’s main landmark. Only two respondents included the KLCC Park’s lake in their mental sketches. Most identified the shopping area Bukit Bintang and major traditional streets such as Jalan Tuanku Abdul Rahman and Jalan Masjid India (see fig. 4, #2 and 3). Despite strong local publicity for the River of Life project, only 23% of respondents identified the two rivers as elements. They were usually drawn in isolation from the street network, and only the historic mosque Masjid Jamek (see fig. 1) and Light Rail Transit (LRT) stations were shown connected to them. This corroborates the findings of earlier surveys of the city image that modern high-rise buildings dominate lower historic buildings, and that the rivers are perceived as boundaries isolated from the neighborhoods that they demarcate, not as integrating pathways within them (Kum and Ujang 2012). For Putrajaya, 93% of respondents
identified the Putra Mosque, the Prime Minister’s Office (see fig. 6), the International Convention Centre and the main boulevard Persiaran Perdana (see fig. 4). Most identified the major node Dataran Putra fronting the Putra Mosque. Almost 60% sketched Lake Putrajaya as a key feature, although most showed it detached from any streets or buildings. It appears that KLCC’s Petronas Towers and Putrajaya’s axial boulevard of large Islamic-styled buildings generate strong images, and the waterfronts are peripheral elements.

Table 1: Summary of elements drawn in cognitive maps of Kuala Lumpur and Putrajaya

<table>
<thead>
<tr>
<th>KUALA LUMPUR (n=30)</th>
<th>PUTRAJAYA (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of depiction</td>
<td>Percent of users depicting</td>
</tr>
<tr>
<td>RIVER</td>
<td>7</td>
</tr>
<tr>
<td>KLCC LAKE</td>
<td>2</td>
</tr>
<tr>
<td>DRAINAGE</td>
<td>1</td>
</tr>
<tr>
<td>LANDMARK</td>
<td>28</td>
</tr>
<tr>
<td>• BUILDING</td>
<td>-</td>
</tr>
<tr>
<td>• BRIDGE</td>
<td>-</td>
</tr>
<tr>
<td>PATH/ STREET</td>
<td>23</td>
</tr>
<tr>
<td>EDGE – RAILWAY</td>
<td>8</td>
</tr>
<tr>
<td>NODES</td>
<td>24</td>
</tr>
<tr>
<td>• JUNCTION</td>
<td>-</td>
</tr>
<tr>
<td>• SQUARE</td>
<td>-</td>
</tr>
<tr>
<td>OTHERS</td>
<td>2</td>
</tr>
<tr>
<td>• BUS STATION</td>
<td>-</td>
</tr>
<tr>
<td>• LANDSCAPE</td>
<td>-</td>
</tr>
<tr>
<td>• PARKING</td>
<td>1</td>
</tr>
<tr>
<td>• TREES</td>
<td>-</td>
</tr>
</tbody>
</table>

Major landmarks identified for Kuala Lumpur: KLCC Petronas Tower
KL Tower
National Mosque
Jamek Mosque
Central Station
KL Sentral Station

Major landmarks identified for Putrajaya: Putra Mosque
Iron Mosque
Premier’s Department
Putrajaya International Convention Centre
Lake Putrajaya

Major nodes identified for Kuala Lumpur: Merdeka Square
Bukit Bintang

Major Paths identified for Putrajaya: Persarian Perdana (main boulevard)

Major Nodes identified for Putrajaya: Putra Square

The Symphony Lake and wading pool at KLCC Park have an important role in the image making of the Petronas Towers and shopping mall by providing a visually, aurally, and bodily pleasing, animated foreground that attracts tourists and families and provides a comfortable setting free from traffic, an ‘oasis’ within the ‘concrete jungle’ (Bunnell 1999:13), where they can linger, look at, photograph, and then visit the Towers and the Mall (fig. 5).

Lake Putrajaya was intended as the city’s central feature. The Prime Minister wanted to ‘put the water in front of the people’ (PP 2014). But Putrajaya’s main axis of government office complexes is set approximately 400m back from the lake, separated by car parks (fig. 7). A survey of the 11 buildings lining this axis’s western side shows all of their public entries face the boulevard; the rear facades only have minor staff entrances. Pedestrian access from the boulevard to the lake along transverse streets is hampered by the use of these frontages as access points for cars and service vehicles. Putrajaya’s streets and buildings are not oriented to enjoy lakeside views and breezes. Visual connectivity to the lake from the city is limited. Most other residential and office areas also turn their backs on the lake. Putrajaya’s two large mosques
stand off-axis near the lake. Their picturesque minarets and domes dominate the city image from the lake, foregrounding the government's desired image of Malaysia as a modern Muslim state (fig. 6).

A comparison of Putrajaya's layout (fig. 5) with that of other master-planned post-colonial capitals - Washington, New Delhi, Canberra, Brasilia, and Sri Jayawardhanapura Kotte in Sri Lanka - confirms its designers were keen to redeploy and appropriate the strong colonial image of an urban axis of power (Vale 2008). But there are significant contrasts between Putrajaya and the other capitals planned around lakes. The lake does not contribute any obvious symbolism to the meaning of the government or the nation, unlike Sri Lanka’s ‘floating’ island parliament near Colombo, which draws upon ancient cultural precedents, or Brasilia, with its lake conceived as the headwaters of the country’s three great river systems spreading north, south and east (Vale 2008). Unlike axially-planned Canberra and Brasilia, Putrajaya does not symbolically link its irregularly-shaped lake into the spatial framework that represents national identity and its connection to the wider landscape. Putrajaya’s planning is more comparable to Washington D.C. in being a postcolonial capital designed to proclaim an independent identity by employing the urbanism and architecture of other, older, imperial cultures. Putrajaya’s architecture does not draw upon specifically Malaysian precedents, but primarily seeks to evoke the history, modernity and wealth of the contemporary Middle East (King 2008, Moser 2012). Much of the Putrajaya lakefront remains vacant and underutilized (author survey). There are few attractions or facilities near the lake that might promote activities and attract pedestrians, and little residential development within walking proximity of the shoreline.

**Economic Development**

The KLCC Park is an amenity to encourage companies to make economic and symbolic investments in the KLCC’s ‘new downtown’. The precinct is now home to many other leading multinational and Malaysian companies including Exxon, Maxis and Mitsubishi, and several leading international hotels (Hassan and Hanif 2012). Our own survey identified 2250 hotel rooms and serviced apartments nearby. Public investment in the site has had a significant role in attracting such businesses. Twenty-seven of the site’s 39 ha were public land on leasehold, but
the entire site was sold in untransparent circumstances to a former director of Petronas with close links to the then Prime Minister (Bunnell 1999). The new 20 ha park is in principle owned by the city government, but the council granted the property developers a 21-year lease to manage the park, so they could ensure high maintenance standards to optimize the value of the surrounding commercial investments (Hassan and Hanif 2012). This management regime admits the prospect of controls that go beyond mere maintenance, to optimize amenity value for commercial consumption. This includes posted rules prohibiting eating and drinking near the wading pool and adults wearing swimsuits, the right to close the pool to public use without prior notice, and construction of a leasable waterfront pavilion to re-capture the value of the lake view. The pavilion’s daily rental fee is 16,000 EUR, restricting it to high-end business users. The KLCC Park serves primarily as an amenity that has helped attract wealthy tourists, shoppers and residents to the Suria KLCC mall and Petronas Towers, and is attracting significant further property development (JUMB and Langdon Seah 2014).

The larger-scale River of Life project is first and foremost conceived as an investment in national economic development, as part of Malaysia’s aim to attain developed-country status by 2020. The two rivers (Gombak and Klang) which played such an important role in the history and development of Kuala Lumpur have been transformed into two industrial drains, buried under the city’s transport and road infrastructure (King 2008). The current landscape along the rivers in central Kuala Lumpur is constituted by blank flood walls and empty pedestrian walkways. The only points of interest are the flood walls’ informal murals (fig. 8). DBKL’s deputy director of planning put it frankly: when the national government looked at what quality of life assets cities in advanced economies had, they all had revitalized urban waterfronts (DBKL 2014). Waterfront revitalization was thus made an element of the wider development goal within Malaysia’s Economic Transformation Plan to enhance urban development in the Klang Valley. For ROL, economic impact is difficult to measure and very long-term, compared to industry investments in other sectors (DBKL 2014). The other ETP projects all involve exploiting existing natural or human resources. The Klang and Gombak rivers are seen as assets degraded through relatively low-value uses, underexploited and requiring public-sector recapitalization to leverage private investment in more up-market housing and offices. The Economic Report supporting the ROL Master Plan indicates that the project aims to trigger as much as 5,000,000m2 of new development on private and government owned land, including 20,000 new apartments to house 66,000 residents (23% of Kuala Lumpur’s total predicted growth), and 100,000 new jobs (AECOM 2013c, DBKL 2012). What the River of Life primarily seeks to emulate from the world’s most liveable cities and their waterfront redevelopments is not improvements in ecology or quality of life, but demonstrating and advertising the municipal government’s entrepreneurial competence in neoliberal management of an existing resource, recovering its potential as an asset to stimulate private-sector real estate investment (Desfor et al. 2010). The project clearly has an indirect, promotional role in the Klang Valley’s economic development. To date, however, it is difficult to determine the viability of the ROL’s economic predictions, as it has just begun construction.

Compared to ROL, Putrajaya’s waterfront lacks potential to directly stimulate economic development. There was no pent-up demand for the land of the existing oil palm plantation. Like the River of Life, Putrajaya’s lake and surrounding green spaces are an amenity intended to attract white-collar residents to the city, promote a leisure lifestyle that makes use of public settings, and thus stimulate domestic consumption. But Putrajaya’s development is strongly shaped by state regulation and state investment; it is not a real estate venture. Tight constraints on a private-sector land market have limited the prospects for significant outside economic investment. This approach is slowly changing (Kozlowski 2014). But few sites near the waterfront are open to private-sector land development or to commercial activities. The government’s emphasis on preserving water quality restricts the range and intensity of waterfront and water-based uses. A dearth of permits for restaurants and food vending means few attractors to draw
people regularly to the lake edge and keep them there for an extended time. Poor wayfinding and poor pedestrian connection to most of the lake edge also limits its attractiveness for commercial uses.

Putrajaya’s waterfront recreation complex is at present disconnected from the government spine. Most food venues near Lake Putrajaya have views onto it but no direct physical connection, limiting prospects for complementary pools of mixed uses that would attract other consumption venues and keep the waterfront lively (Stevens 2006). Although the lakeside bicycle path is illuminated at night, public bicycle rental facilities close at 5pm, limiting evening cycling, the optimal time for active outdoor recreation in this perennially tropical climate. Our field survey of cafés and restaurants in the eight Precincts surrounding Lake Putrajaya revealed only 12 of 43 outlets are located along the 38km of lakeshore.

Putrajaya’s two central mosques potentially provide focal points for catalyzing a mix of urban activities near the lake. But they are set very high above the lake edge, and are entered from the land side, along sub-axes connecting to the city spine. There is a missed opportunity to harness the potent symbolic connection between the clean lake and the ritual of washing before entering a mosque to pray. As a point of comparison, the historic mosque Masjid Jamek in the centre of Kuala Lumpur, at the junction of the city’s two main rivers, was originally entered from a grand staircase leading up from the water’s edge. Putrajaya’s largest completed shopping centre, Alamanda, sits adjacent to the lake. Although it is too far from the city’s main axis to walk, it is potentially within walking distance of several dense residential clusters. Like the Suria KLCC, the Alamanda mall has a large pond with dancing fountains outside its inland, roadway front entrance, and a smaller one at the lake end of its main spine. But like most malls, it is very internalized. The outdoor dining area is elevated 3.5m above the foreshore, and has poor connection to its lake frontage. A 3m high blank wall on the lake frontage of the adjacent Everly Hotel also discourages evening pedestrian activity along the lake.
Only in recent years has the Putrajaya Corporation begun encouraging residential and commercial development facing the lake. A new lakeside commercial complex, Ayer 8 has recently opened across from the Iron Mosque. It incorporates some retail and dining premises fronting the water. But the public waterfront right-of-way has not been upgraded to support these uses (figs 9, 10); there is a lack of coordination between private and public investments. New waterfront developments recently opened include the Putrajaya Marina recreational complex and a 2.6 ha local campus of Scotland’s Heriot Watt University catering for 5000 students, deliberately sited within walking distance of the marina and resort. The campus should enhance pedestrian vitality, economic vibrancy and commercial development along the Lake (Heriot-Watt University 2014). There are still 1746 ha of vacant land suitable for development in Putrajaya. Sixty percent of this is located along the Lake or ancillary waterways (Putrajaya Holdings 2014). This illustrates the significant scope for further waterfront investment in Malaysia’s administrative capital.

Figure 9. Open-sided waterfront restaurant in Taman Seri Empangan, a park adjacent to the dam at the south end of Lake Putrajaya (Source: Authors).

Figure 10. Ayer 8 commercial development, Putrajaya. Weak pedestrian connection to the lake edge (Source: Authors.)
Ecological Performance

The managers of KLCC Park advertise its preservation of mature trees and its planting of a range of indigenous species, and its potential as a haven for native birds and small wildlife. But its purported role as a ‘green lung’ (Bunnell 1999) has to be seen chiefly in visual, psychological and promotional terms. Kuala Lumpur’s hilly terrain retains adequate amounts of undeveloped, densely-forested land. The KLCC Park is an idealized, thematic construction of a tropical Malaysian landscape for leisure consumption, placed in a sublime oppositional pairing with high-tech, high-rise urban forms. It is not the riparian reconstitution of an endogenous water body; it has little capacity to improve air quality or protect biodiversity.

The creation of Lake Putrajaya and its wetlands has served practical purpose in controlling runoff and purifying the water. Putrajaya’s lakefront botanical gardens and Vision Park help support biodiversity. There are numerous green fingers and reservations providing a wider green network throughout Putrajaya’s built-up area. The area has a far richer diversity of plant and animal species than the palm plantation it replaced. The lake’s extensive, sophisticated system of retention and filtration ponds advertise Malaysia’s ecological ambitions, showcase contemporary best practice in sustainable drainage systems, and educate the public about the importance of water quality; at least for those who venture upstream of the lake to inspect them. These are certainly all significant steps forward.

But the overall visual rhetoric of Putrajaya as a ‘green lung’ (Siong et al. 2013) and these specific investments in ecological protection and their touted benefits should not be seen in isolation (PP 2012). As a whole, Putrajaya is a relatively carbon-intensive urban development. The city’s carbon emissions have increased six-fold over the period 2007-2011, and the local authority is now pursuing policies aiming to reverse this growth (Ho et al. 2013). Putrajaya’s buildings are mostly air-conditioned; only the mosques and pavilions utilize the lake breezes. The most popular outdoor waterfront places for social interaction in Putrajaya are the two major bridges that span the lake (fig. 11). Out of 48 buildings in Putrajaya’s core surrounding Persiaran Perdana (Precincts 1, 2, 3 and 4), only two buildings, the Premier’s Department and the Energy Commission Building are certified as having efficient use of energy, water and materials (Green Building Index 2014). The distances between workplaces, residences and leisure areas in Putrajaya are too large for walking in the hot humid climate, and so are the distances between individual buildings; most people use cars, taxis or busses.

King (2008) critiqued Kuala Lumpur’s as lacking any of the kind of ecological management and education provided by Putrajaya’s wetlands and botanical garden. The River of Life responds to this lack, developing an image of ecological sensitivity. Like Putrajaya, the ROL reinforces its implicit message of ecological awareness through educational facilities such as publicly-accessible demonstration detention and filtration facilities along the embankments. But these investments are not concentrated in significant, useful enhancements in ecological performance. The ROL is, rather, a carefully managed image composed from natural elements, overlaid on a thoroughly urbanized, manufactured landscape, functioning as an advertisement for the government.

Despite the high internal environmental standards of these three waterfront projects, and their appealing images as ecologically rich, vibrant, clean environments, none has the capacity to provide significant improvements in overall environmental quality for their wider urban areas, except to the extent that Lake Putrajaya provides a source of clean, drinkable water. Nor has this necessarily been intended. These are urban waterfronts, carefully designed to fit within a context of intense development and use of land and high-volume transportation infrastructure. All three of these waterfront landscapes are highly cultivated, even to the extent of reforming drainage channels and basins. The wider urban development surrounding these signature set-pieces seldom makes any attempt to yield to natural landforms and vegetation or traditional practices of managing them (King 2008).
CONCLUSION

The waterfront precincts examined here contribute significantly to the portrayal of Putrajaya and Kuala Lumpur as post-industrial cities that have moved beyond a colonial heritage of resource extraction and dependence, and that can compete for residents, global visitors and high-end real estate investment on the basis of high-quality landscapes tailored to consumption and displays of environmental responsibility. The KLCC and Putrajaya waterfronts also follow similar projects overseas in being largely segregated from existing mixed-use pedestrian precincts that could potentially make these waterfronts lively, inclusive social settings. Rather than reconnecting urban areas with the water, KLCC and Lake Putrajaya establish new enclaves. The ROL project’s effort to re-integrate the city centre and the rivers by emphasising connectivity to, across and along the river corridor is a step in the right direction.

Despite critiques of its origins and ethnic exclusion, the Islamic-inspired architecture of Putrajaya and the Petronas Towers has been quite successful in presenting a distinctive new Malaysian identity (Moser 2010, Bunnell 1999). The same cannot be said for the waterfront landscapes that these buildings sit within, which reproduce generic international ideas about the appearance and uses of waterfront open space. These settings are strongly influenced by both Western and Eastern exemplars with colonial heritage: green oases within shopping malls, aquatic play zones, riverside promenades, restored colonial buildings, artificial beaches, educational demonstrations of ecological restoration, spectacular road bridges. None of the three projects reflect the local context of hilly, tropical jungle (except by selecting choice tree specimens from it), and there is little attention to traditional local ways of managing and using waterfront landscapes.

While urban waterfront redevelopment in most countries involves remediating the toxic heritage of former sea and river ports, none of these three Malaysian sites were industrial precincts. While Lake Putrajaya and the River of Life, like other urban waterfront renaturalization schemes, clearly provide aesthetic benefits that attract tourists and residents, there is no evidence that the three projects significantly enhance overall environmental indicators such as air and water quality. Also in representational terms, these three projects do not engage directly with the particular history of their landscape of colonisation, immigration and development - the tin mines, the plantation, the horseracing club, the Chinese commercial zone. Putrajaya’s grand new urban architecture largely ignores the Malay vernacular housing or mosque forms with their tiered roofs and open walls and their intimate relation to water. In terms of appearance, use and
development process, these waterfront projects are formulaic, similar to urban waterfront redevelopments elsewhere. The use of international design consultants to shape KLCC Park and the River of Life suggests this was actively sought.

These three projects conform to King’s (2008) assessment of Malaysian urban landscapes generally as being collages of contradictory, largely exogenous influences and objectives. Such contradictions are perhaps at odds with the very idea of an ‘ecology’, undermining any prospect that sets of forces can be brought into balance. Malaysia’s planners and designers are clearly seeking to forge distinctive outcomes by drawing on a range of external exemplars, but the predominantly Western models, which are mostly former industrial areas in temperate climates, are of questionable relevance to the Malaysian context. The greatest lack seems to be in Malaysia’s new urban waterfronts learning from their own local spaces and traditions and developing new, distinctive paradigms. Four more authentic possibilities for Malaysian waterfronts are suggested by existing sites within our study areas. The first is the numerous street-art murals currently lining the concrete flood walls around Kuala Lumpur’s river junction (fig. 8). The very inaccessibility of this riverfront has made it a sheltered site for this rare kind of contemporary public expression. There is little public art in KL and Putrajaya, especially not depicting people. The second locally-derived waterfront public space is the numerous modern, open-sided pavilions facing onto Lake Putrajaya, such as the large fish restaurant overlooking the lake’s remote southern end, next to its retaining wall (fig. 9). Third, Putrajaya’s two main lake bridges (fig. 11) are very popular locations for evening socializing because of their breezes, views and night-time illumination. More could be made of the opportunities for public life encouraged by these predominantly-vehicular bridges. The fourth is the steps that lead up from the river to Kuala Lumpur’s first mosque, Masjid Jamek, now being reinstated (fig. 12). This links the intimate religious practice of washing the feet to the city’s founding location. These latter examples encourage people to have prolonged, frequent engagement with the river in their everyday lives. Rather than jet-ski rentals, high-rise luxury apartments and school visits to retention ponds, these seem to be activities that Malaysians readily associate with urban waterfronts.

REFERENCES
DBKL = Dewan Bandaraya Kuala Lumpur (2014) personal interview with staff from the city planning department, 16 April.


PP = Perbadanan Putrajaya (2012), personal interview with staff from the Lake Management department, 14 April.


