Green Pause in a City: Design Elements of a Pocket Park in Kuala Lumpur

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Abstract
Pocket Park, a small-scale open urban green space valued as community assets, is introduced as an alternative for urban parks within limited space constraints. However, research on pocket parks, explicitly in Kuala Lumpur, is scarce compared to Western cities. This study looked into the design elements of Laman Tun Perak to investigate its significance to the urbanites. The objectives are to identify how the pocket park is utilised and determine its design elements. The design elements of a pocket park are connectivity and permeability, safety, comfort, and activities.

Keywords: Design elements, Laman Tun Perak, Pocket Park, Urban Green Spaces

1.0 Introduction
Pocket parks are small-scale spaces accessible by all users (Bruce, 2018), introduced as an alternative for providing benefits that urban parks would have within the constraint of limited space (Zhou et al., 2021). This constraint is brought up by the increasing population migration, rapid urbanisation, leading to the lack of access to quality green space (Balai Kerishnan et al., 2020). Pocket parks are valued as community assets (Gibson and Canfield, 2016), providing the opportunity to enjoy nature, spaces for recreational activities (Macedo and Haddad, 2016), improve physical and psychological health (Williams et al., 2020), cultivate positive social relations and building sustainable communities (Schebella et al., 2019). However, in the urban environment, the competition for land is fierce due to the rising demand for different land-use options, restricting the development of public parks. In addition, the local authority’s budget for urban green spaces is low and limited (Ersoy et al., 2019). Pocket parks are flexible in size; for example, pocket parks in Philadelphia range from 900 square feet to 9,000 square feet; the essence of the pocket park lies in its adaptability rather than its scale (Blake, 2013). Thus, to overcome this with little accessible land, pocket parks emerge as a rational answer to enable public spaces within a crowded environment where space is limited (McDonald et al., 2018).

1.1 Research justification and objectives
Most studies explored pocket parks in the European and North American context (Danford et al., 2018; Peschardt et al., 2016). Relevant research in Malaysia often talks about urban parks (Malek et al., 2018; Sreetheran, 2017). Studies on pocket parks in Kuala Lumpur are still scarce, with available studies only showing the effects of pocket parks (Hashim et al., 2019), restorative benefits offered by pocket parks.
parks (Hashim et al., 2019), as well as usability and constraints of pocket parks (Balai Kerishnan et al., 2019). There is a lack of information regarding landscape strategies and design features for pocket parks. For instance, how are pocket parks specifically in Kuala Lumpur utilized, and what are the design elements applied in the pocket parks. Thus, this study aims to investigate the significance of Laman Tun Perak in Kuala Lumpur. The objectives are to identify how Laman Tun Perak is utilised and determine its design elements.

2.0 Literature Review

2.1 Limitation of spaces in the urban setting

Currie (2016) stated that most urbanisation is inclined towards highly densified development because city proposals conserve precious land resources and reduce travelling distance. And as the global population rises, cities continue to expand, and the land value increases indefinitely, causing the competition for land to become fierce (Danford et al., 2018). The continuous expansion of residential and commercial buildings in the urban area has caused the decline of natural features within the urban landscape and tightened stress against introducing new open green spaces within the metropolitan area. Thus, restricting the implementation of a public park that requires a large land area (Zhou et al., 2021).

2.2 Incompetence funding and maintenance

Land competition is harsh in urban environments due to the rising demand for different land-use options. This situation restricts the development of urban public parks. The struggle over land availability and fees cripples the chances of introducing and improving urban green spaces that need maintenance regularly (Zhou et al., 2021). Like most publicly-provided features, parks are not directly profitable, and thus the justification for investment is weak (Abdullah et al., 2019). Furthermore, the local authority’s budget for urban green spaces is low and limited (Ersoy et al., 2019). Resulting in poorly maintained parks and rarely development of new parks.

2.3 Pocket Park Design Criteria

Creating a pocket park is different from creating other parks as it is made opportunistically (Balai Kerishnan et al., 2020). Other parks have a predetermined location, whereas pocket parks are born out of unused or underutilised spaces. Pocket parks can typically be situated along with any point within the urban fabric if areas are available to cater to the needs of the urbanites. However, their triumph relies heavily on careful planning, innovative designs, and, most importantly, local communities’ support (Mohamed Anuar et al., 2018). Table 1 presents the pocket park design criteria summarized by Abd El Aziz (2017) after reviewing various previous studies. It suggests four defining aspects of pocket parks: Connectivity & Permeability, Comfort, Safety and Activities.

<table>
<thead>
<tr>
<th>Table 1. Pocket Park Design Criteria</th>
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<tbody>
<tr>
<td>Pocket Park Design Criteria</td>
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<tr>
<td>Area and location</td>
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<tr>
<td>Must not exceed 5000m²; 5-10-minute walk; Locate adjacent to buildings.</td>
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<tr>
<td>Access and linkage</td>
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<tr>
<td>Safe and easy access with multiple entries; Link to recreational, cultural and community amenities.</td>
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<tr>
<td>Space design</td>
</tr>
<tr>
<td>Define edges and focal point; Welcoming and appealing design; Adaptable and comfortable spaces.</td>
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<tr>
<td>Uses and activities</td>
</tr>
<tr>
<td>Offer a variety of activities; Areas for physical activities, therapeutic and social interaction.</td>
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<tr>
<td>Environmental</td>
</tr>
<tr>
<td>Provide shade, bio-filter landscaping beds, solar-powered amenities and ventilation.</td>
</tr>
<tr>
<td>Landscape elements</td>
</tr>
<tr>
<td>Avoid walls in perimeter; Add water features, street furniture. Maximise natural shade. Provide adequate lighting; Offer public art opportunities.</td>
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<tr>
<td>Participation and maintenance</td>
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<td>Community involvement in the design process; Get government support; Reduce maintenance needs.</td>
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(Source: Abd El Aziz, 2017)

3.0 Methodology

Three phases of qualitative methods are employed to investigate and verify the design elements of Laman Tun Perak. The first phase involved field observation and notetaking (Hussein and Mohsin, 2019). In the second phase, similar to Currie’s (2016) method, data obtained from site observation and archiving through documentation of plans and sectional drawings are considered the study’s primary data. The third phase comprised semi-structured interviews with the project leader and landscape architect of Laman Tun Perak. In contrast, data gathered from the interviews are treated as auxiliary means to support the primary data.
3.1 First phase: Field observation and notetaking
The observation involved visiting the site on various timeframes to record how people utilise Laman Tun Perak. The authors conducted a visit on 22 February 2022. The behaviour and activities of visitors during four different timeframes (9 a.m., 12 p.m., 3 p.m. and 6 p.m.) were observed and documented as photographs and notes to discover how people engage with the design elements.

3.2 Second phase: Drawings and analysis perimeter
Plan drawings were produced to analyse the vegetation, topography, and the immediate context of cross-sections from Laman Tun Perak. These drawings were presented to the project leader and landscape architect through interviews to understand how people utilized Laman Tun Perak and how the design elements encourage their behaviours. Thus, the pocket park design criteria (Abd EL Aziz, 2017), listed in Table 1, became the groundwork for the analysis of Laman Tun Perak. However, this study streamlines the criteria into a more humane approach: Connectivity and Permeability; Safety; Comfort; and Activities as pocket parks are considered community assets, adapting to human behaviours (Macedo and Haddad, 2016).

3.3 Third phase: Semi-structured interview
The questions focused on verifying the landscape architect’s design strategies with the data obtained from the archiving through Laman Tun Perak’s documentation to emphasise the process rather than outcomes. The drawings produced in the second phase, consisting of the vegetation analysis, the topography and its immediate context of various cross-sections from Laman Tun Perak, were presented to the landscape architect on 20 October 2020 via Zoom meeting. Data obtained from this interview added to the analysis and review to understand the relationship between how people utilized Laman Tun Perak and how the design elements encourage behaviours.

3.4 Description of Laman Tun Perak and justification as a case study selection
In the vision of Kuala Lumpur City Hall (DBKL) City Plan 2020, accessible parks promote recreation, health, education, and economic regeneration, helping to make Kuala Lumpur an attractive city to live in and work. In line with the study done by ThinkCity in 2017, DBKL proposed a series of projects orbiting three main components: Energise, Connect, and Create. Laman Tun Perak is a project under Energise related to urban renewal and placemaking. Thus, the pocket park became a strategy in greening the city.

Laman Tun Perak is a 680m² pocket park facing Jalan Tun Perak, Jalan Raja Laut and Jalan Tuanku Abdul Rahman. There are notable landmarks and monumental buildings within a 500m radius from Laman Tun Perak (Figure 1). With DBKL’s main building and various government services offices right around the corner and the proximity to Masjid Jamek, and its respective Light Rail Transit station, Laman Tun Perak became a pathway to work and back home.

![Fig. 1: Mapping the context within a 500m radius from Laman Tun Perak. (Source: Author)](source)

Laman Tun Perak is selected for this study because it is considered a well-known pocket park in Kuala Lumpur. It is situated near the beginning of the city's convergence of the rivers beside a bustling traffic intersection. Initially, a water feature installation in the background contradicts its prominent location. ThinkCity took on this project and transformed the site in 2018 (Figures 2(a)(b). With the help from SD2 Sdn Bhd led by landscape architect Ng Sek San, Laman Tun Perak has become an urban forest worthy of visit and study.
3.5 Limitations
There are two limitations to this study. Firstly, due to the pandemic COVID-19, unnecessary movement around the public area is advised to be limited; thus, seeking suitable subject visitors might pose a challenge. Secondly is the challenge in obtaining relevant information and data from appropriate personnel with the time constraint that is at hand.

4.0 Findings
According to Laman Tun Perak’s project leader, Joanne Mun of ThinkCity, the park’s site condition is well-maintained; the vegetation creates a comfortable environment, with a water feature flowing in Laman Tun Perak’s centre. However, the park’s frequency is generally low as its geographical location has established itself as a pathway rather than a destination. Findings from five sections show different aspects of the pocket park: Plant composition and Design elements. The section cut-throughs are indicated in Figure 3.
4.1 Section A-A
Section A-A (Figure 4) is the only long section that cuts through Laman Tun Perak among the five cross-sections. It portrays the overall journey and experience and enables the reader to understand how the pocket park looks.

Fig. 4: Sectional study of Section A-A
(Source: Author)

4.2 Section B-B
This section (Figure 5) highlights the only formal entrance and exit of Laman Tun Perak. It illustrates the relationship between the road, pedestrian pathway, and its context to the pocket park.

Fig. 5: Sectional study of Section B-B
(Source: Author)
4.3 Section C-C
This section (Figure 6) shows the water feature and pond, showing the composition of landscaping features and its relation to Laman Tun Perak’s overall scheme.

4.4 Section D-D
This section (Figure 7) illustrates a pedestrian pathway’s existence and how it transforms in composition and design in Laman Tun Perak, highlighting a barrier in the form of level difference and water feature.
4.5 Section E-E
This section (Figure 8) is the highest level in Laman Tun Perak. It demonstrates people’s engagement with the stream and its surrounding landscape composition.

![Fig. 8: Sectional study of Section E-E](Source: Author)

4.6 Summarised findings
Relevant findings of all cross-sections are highlighted in Table 2.

<table>
<thead>
<tr>
<th>Pocket park’s defining aspects</th>
<th>Section</th>
<th>Connectivity &amp; Permeability</th>
<th>Safety</th>
<th>Comfort</th>
<th>Activities</th>
<th>Supporting Comments from Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-A</td>
<td>Only one entrance; Perimeter can be accessed into the park; Unobstructed sightline towards the park’s endpoint.</td>
<td>Unobstructed sightline; Higher inner level prevents vehicular access.</td>
<td>Existing mature trees as shading; Boulders as seating; Soothing sound from flowing water.</td>
<td>Caters for quick rest and lunch; Children enjoy the water.</td>
<td>The permeable sight had a clear sightline toward the pavilion, which was the initial design intention.</td>
<td></td>
</tr>
<tr>
<td>B-B</td>
<td>Entrance facing a broader flat land; Unobstructed sightline towards the park’s endpoint.</td>
<td>Unobstructed sightline; Higher inner level prevents vehicular access; Ground material prevents slipping.</td>
<td>Existing mature trees as shading; Minimal horizontal tree branches obstructing path; Boulders as seating.</td>
<td>Stone signage for activities, information and attraction points.</td>
<td>The entrance is positioned due to the broader pedestrian path, contributing to safer access.</td>
<td></td>
</tr>
<tr>
<td>C-C</td>
<td>Plant composition does not obstruct the main path; Less branching and sparse leaves allow visual access.</td>
<td>Higher inner level prevents vehicular access; Stream acts as a buffer; Shrubs surrounding stream prevents users from falling in.</td>
<td>Existing mature trees as shading; Soothing sound from flowing water; Boulders as seating.</td>
<td>Recreational activities alternative for parents with children.</td>
<td>The design intended to imitate a forest-like passage, creating a more natural experience.</td>
<td></td>
</tr>
<tr>
<td>D-D</td>
<td>Plants and differences in levels obstruct access; Less branching and sparse leaves allow visual access.</td>
<td>Higher inner level prevents vehicular access; Shrubs surrounding streams prevents users from falling in.</td>
<td>Comfortable visual permeability; Existing mature trees as shading; Soothing sound from flowing water.</td>
<td>Recreational activities as alternative for parents with children; Boulders as seating.</td>
<td>The park was not meant to be a place for people to frequent; the park intended to create a natural environment within an urban fabric. Boulders are used to create a more natural environment, minimizing manufactured items.</td>
<td></td>
</tr>
<tr>
<td>E-E</td>
<td>Plants and differences in levels obstruct access; Less branching and sparse leaves allow visual access.</td>
<td>Higher inner level prevents vehicular access.</td>
<td>Comfortable visual permeability; Existing mature trees as shading; Adequate seating.</td>
<td>Boulders as seating; Meeting point.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Author)
4.6.1 Connectivity and permeability
Connection and access to urban parks promote social equity and quality of life (Macedo and Haddad, 2016). Thus, the connectivity and accessibility of a pocket park are highly regarded in its competency. However, Laman Tun Perak has only one main entrance. The landscape architect intends to create a sense of journey for visitors to pass through various directions despite having only an entry. Moreover, the visual permeability achieved by selecting plants with scarce leaves enables visitors to see the surroundings and good wayfinding. Careful plant selection that does not obstruct visions enhances landscape connectivity (Hussein and Mohsin, 2019), thus, increasing visitors and accessibility.

4.6.2 Safety
Williams et al. (2020) emphasised the importance of parks that affects visitors to visit the park frequently. Studies by Luymes and Tamminga (1995) and Jansson et al. (2013) on principles for designing safer public places stated the importance of user involvement in planning, design, maintenance, and surveillance of public spaces. Clear sightlines and freedom of movement within a park were highlighted, complementing the visual permeability within Laman Tun Perak, allowing visitors to be more discerning towards their surroundings. Laman Tun Perak is designed with a slightly higher ground level than its surroundings to prevent vehicles from accidentally crashing into the park.

4.6.3 Comfort
In hot climates, vegetation is a prime factor for providing shade and reducing solar radiation (Fan, 2020). Furthermore, parks shaded by mature trees allow a wider shaded area and a more comfortable environment. The effort to preserve matured trees with dense canopy provides shading means to the park. Both landscape architect and project manager of Laman Tun Perak intend to keep the park as natural as possible with boulders, enabling visitors to sit and rest. The water feature plays a part in further cooling the environment with its soothing sound generated through flowing water. This calming effect breaks the visitors away from the buzzing city life.

4.6.4 Activities
Parks are essential for enjoying nature and recreational activities (Macedo and Haddad, 2016). They offer restorative psychological experience, physical activity, and social interaction (Schebella et al., 2017). Activities such as walking, running, picnicking, and aesthetic experience should be essential in developing any urban park (Zhu et al. 2020). The landscape architect confirmed that Laman Tun Perak was intentionally designed not as a destination but for people to rest and continue their journey. Photographic evidence also showed that visitors interacted with the flowing water.

5.0 Discussion
5.1 The utilisation of Laman Tun Perak
During the field observation phase, activities in Laman Tun Perak were relatively subtle. Currie (2016) stated that parks provide a favourite destination for walking trips. However, the landscape architect mentioned that Laman Tun Perak is not intended as a destination but as a pause along the way to individuals’ endpoint, which to an extent, on-site evidence supported this. The public engagement done before the embarkment of Laman Tun Perak by the project team stated the preference of target users inclined towards the idea of the place not being a destination.

Balai Kerishnan et al. (2020) suggested that cities need more pocket parks near the working environment for recreational benefits. However, photographic evidence showed no recreational equipment within Laman Tun Perak. Besides sitting and resting in the park, visitors immerse themselves with the soothing atmosphere created by the sound of continuously flowing stream water and shading of the canopy, taking their time and enjoying nature’s presence. Thus, Laman Tun Perak is being utilized as a backdrop within a busy urban setting where working individuals can take a break to enjoy nature along their way to work in a densely populated area.

5.2 The design elements applied in Laman Tun Perak
Urban parks interact with and benefit humans (Zhao, 2020). Thus, the authors took a more humane approach in appraising Laman Tun Perak through its Connectivity and Permeability, Safety, Comfort, and Activities. From the analysis done on cross-sections in Laman Tun Perak using this approach based on the pocket park’s defining aspect mentioned by Abd El Aziz (2017), various design elements were identified and summarised in Table 3.

<table>
<thead>
<tr>
<th>Design element</th>
<th>Defining aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>One entrance to create a journey within the park</td>
<td>Connectivity</td>
</tr>
<tr>
<td>Excellent visual connection throughout the park</td>
<td>Permeability &amp; Safety</td>
</tr>
<tr>
<td>Elevated level compared to the surrounding</td>
<td>Safety</td>
</tr>
<tr>
<td>Well-shaded park by mature trees</td>
<td>Comfort</td>
</tr>
<tr>
<td>Interactable water feature with constant movement</td>
<td>Comfort &amp; Activities</td>
</tr>
<tr>
<td>Natural elements used as seating</td>
<td>Activities</td>
</tr>
</tbody>
</table>

(Source: Author)
5.2.1 Connectivity and Permeability:
There is only one formal entrance in Laman Tun Perak, which the landscape architect intends to create a sense of journey while entering and venturing into the inner part of the park. The visual permeability through a selection of plants with scarce leaves intends to make visitors aware of the surroundings and good wayfinding.

5.2.2 Safety:
The elevated levels of Laman Tun Perak create a safer environment for the visitors as it prevents any vehicles from accidentally crashing into the park. The excellent visual permeability within the park also allows visitors to stay aware of their surroundings, preventing themselves from getting ambushed or mugged from hidden corners.

5.2.3 Comfort:
Existing mature trees with large and dense canopy for shading allow a comfortable environment for visitors. The stream plays a part in further cooling the environment with its soothing sound generated through flowing water. This provides a sort of calmness to the visitors and breaks them away from the buzzing city life.

5.2.4 Activities:
Interaction with the flowing water is present and acts as a catalyst to attract visitors, especially children who like to play with water. Adults also rinse their hands and feet in the water. Even though there are no benches to sit, visitors use large boulders and remnants of the previous fountain as seating.

6.0 Conclusion and Recommendations
Laman Tun Perak can be a dynamic pocket park contributing to a place for urbanites in Kuala Lumpur. Understanding this park’s functions, uses, and design elements have led to identifying its significance as a space of pause or rest, not as a destination for visitation. The findings of this study will be applicable across most pocket parks with similar contexts and can assist professional designers in designing pocket parks in the future. However, we can further question the possibility of the Laman Tun Perak utilisation being changed into a destination, no longer a pause, or the potential to improve its design elements to increase users’ activities within the site’s premise.

This study investigated the functions, uses, and design elements of Laman Tun Perak to understand its significance in encouraging users’ activities. As a recommendation for improving the scarce research on pocket parks, especially in Malaysia’s context, this paper illustrates one of the few papers that relay knowledge on a pocket park in Malaysia. Albeit narrow in scope, this study conveyed the background and use of Laman Tun Perak, allowing professional designers to incorporate the importance of pocket parks into their planning and schemes. Therefore, further research could potentially investigate the relationship between users’ activities and well-being when they engage with design elements in Laman Tun Perak. Future research on pocket parks in Malaysia, specifically in Kuala Lumpur, could be linked to other research fields such as therapeutic psychological or health and well-being that encompasses mental fatigue, improved stress recovery, and positive mood.

Benefits towards the end-users are more prominent than insight opinions from professional designers as they utilize the pocket park. Hence, future studies should lean towards the end-users involvement in the design process and preference for a pocket park which might provide a more detailed direction on the future refinement of pocket parks.

Acknowledgement
Thanks, Universiti Malaya, for providing a research platform for the Master in Architecture; The project leader and landscape architect of Laman Tun Perak participated in this study. Special thanks to Nur Ameelia Rokhaza’ain Mohsin for graphics support.

Paper Contribution to Related Field of Study
This paper contributed the landscaping elements employed within Laman Tun Perak, highlighting the cause that affects people’s visitation to the park and composition that guide and suggest different activities. These elements contribute to the fundamental understanding of a pocket park and establish a baseline for a workable pocket park with a similar context. As pocket parks are notable alternatives to urban parks due to space limitations, the knowledge conveyed would suggest positive insight to design professionals. Laman Tun Perak truthfully deserves the privilege of being the Green Pause in the centre of Kuala Lumpur.

References


