



**PUBLIC ACCEPTANCE TOWARD NATURALISTIC LANDSCAPE IN KUALA
LUMPUR'S URBAN PARK, MALAYSIA**

By

NUR DIYANA BINTI MOHD ARIFFIN

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
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Science**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Master of Science

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April 2023

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Kuala Lumpur has signalled a modernised and progressive metropolitan city with massive changes in physical infrastructure and the city's environment including the urban parks. Thus, there is a need to develop more appropriate measures for managing these landscapes sustainably. Implementing a naturalistic landscape style in tropical urban parks may represent a different appearance. It would create different public reactions compared to the current landscape style. Therefore, this study aims to investigate the public acceptance of landscape style in Kuala Lumpur's urban parks and changing it to a more naturalistic landscape style. Objectives for this study are 1) to assess public acceptance for landscape style in an urban park and changes towards naturalistic landscape style, 2) to analyse the factor that influences public acceptance for naturalistic landscape style in an urban park, and 3) to make recommendations of suitable naturalistic landscape style in Kuala Lumpur's urban park according to public acceptance. A questionnaire survey was conducted to collect the data of three selected urban parks in Kuala Lumpur, which are Perdana Botanical Garden (PBG), Ampang Hilir Park (AHP), and Bukit Kiara Federal Park (BKFP) have been polled for their acceptance regards familiarity with nature, usability of park, visual acceptance, level of agreement towards naturalistic landscape and demographic. The result found that the public generally accepts the existing and naturalistic landscapes under certain conditions, such as the type of area it is located and their function, as the majority of them come to the park for leisure with family and friends. The public is willing to accept such a landscape style with some considerations. This research's significant outcome will help determine the suitable appearance of the naturalistic landscape style for implementation based on public acceptance.

Keywords: naturalistic landscape; ecological design; public acceptance; environmentally sustainable approach

SDG: GOAL 11: Sustainable Cities and Communities; GOAL 15: Life on Land

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains

PENERIMAAN ORANG AWAM TERHADAP LANDSKAP NATURALISTIK DI TAMAN BANDAR KUALA LUMPUR, MALAYSIA

Oleh

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Kuala Lumpur, bandar metropolitan yang moden dan progresif dengan perubahan besar dalam infrastruktur fizikal dan persekitaran termasuk taman bandar. Terdapat keperluan untuk membangunkan langkah yang lebih sesuai untuk mengurus landskap ini secara mampan. Melaksanakan gaya landskap naturalistik di taman bandar mungkin mewakili penampilan yang berbeza dan akan mewujudkan reaksi berbeza berbanding dengan landskap semasa. Kajian ini bertujuan untuk menyiasat penerimaan orang ramai terhadap landskap di taman bandar Kuala Lumpur dan mengubahnya kepada landskap naturalistik. Objektif kajian ini adalah untuk 1) mengakses penerimaan orang ramai terhadap landskap di taman bandar dan perubahan ke arah landskap naturalistik, 2) menganalisis faktor yang mempengaruhi penerimaan orang ramai terhadap landskap naturalistik di taman bandar, dan 3) membuat cadangan landskap naturalistik di taman bandar Kuala Lumpur mengikut penerimaan orang ramai. Tinjauan soal selidik telah dijalankan untuk mengumpul data dari tiga taman bandar terpilih, iaitu Taman Botani Perdana, Taman Ampang Hilir, dan Taman Persekutuan Bukit Kiara untuk penerimaan mereka tentang kebiasaan dengan alam semula jadi, kebolegunaan taman, penerimaan visual, tahap penerimaan terhadap landskap naturalistik dan demografi. Hasilnya mendapati orang ramai menerima landskap naturalistik dalam keadaan tertentu, seperti jenis kawasan dan fungsinya, kerana majoriti daripada mereka datang ke taman untuk beriadah bersama keluarga dan rakan. Orang ramai bersedia untuk terima gaya landskap sedemikian dengan beberapa pertimbangan. Hasil penyelidikan ini akan membantu menentukan penampilan gaya landskap naturalistik yang sesuai untuk pelaksanaan berdasarkan penerimaan orang ramai.

Kata kunci: landskap naturalistik; reka bentuk ekologi; penerimaan orang ramai; pendekatan lestari alam sekitar.

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LIST OF ABBREVIATIONS

KLCH	Kuala Lumpur City Hall
NLP	National Landscape Policy
MFYP	Malaysia Five-Year Plan
PBG	Perdana Botanical Garden
BKFP	Bukit Kiara Federal Park
AHP	Ampang Hilir Park

CHAPTER 1

INTRODUCTION

This research focuses on public acceptance toward naturalistic landscapes in Kuala Lumpur's urban parks. The background and context of this study are briefly described at the beginning of the chapter. It briefly describes how urban parks and green spaces in Malaysia have evolved and how urbanisation has changed and further influenced how locals appraise the view of these landscapes. Using Kuala Lumpur as an example, this chapter will explain the acceptance and expectations of the public regarding urban park landscape style and the potential of changing it to naturalistic landscapes. For this, there is a need to understand the issues and challenges faced by the park management in managing these landscapes in moving towards more ecological sustainability. The chapter ends with an overview of the structure of the paper before clarifying the purpose of the research.

1.1 Background Study

In the Town and Country Planning Act, of 1976 (Act 172), developers are required to comply with conditions and measures to beautify the landscape, preserve trees, and provide open spaces. In the Eleventh Malaysia Plan (2016-2020), it is mentioned sustainable and development resilience through green growth in their six (6) strategic thrusts. On account of a better understanding of the role of urban landscapes in providing ecosystem services and adapting to urban environmental challenges, landscape practitioners have made significant contributions to urban park management in the last decades of the 20th century. This is in line with Kuala Lumpur City Hall (KLCH) vision towards realizing Kuala Lumpur as a World Class Sustainable Tropical City by 2020. The practice has moved towards providing environmentally sustainable landscape practices besides providing public leisure and recreation. For example, incorporating more naturalistic planting into urban parks may have created new habitats and improved biodiversity. This strategy focuses on protecting existing local vegetation but integrating suitable non-invasive peculiar species through plant communities and promoting self-regenerating landscapes through a slow, gradual process (Dunnett, N., & Hitchmough, J., 2007). This sustainable practice could provide a cost-effective landscape management solution for urban parks.

1.1.1 Policies And Governance Background

Generally, land use planning in Peninsular Malaysia is undertaken wholly within the provisions of the Town and Country Planning Act of 1976 (Act 172) and its amendments in 1995 (Act A933) and in 2001 (Act A1129). The Town and Country Planning Act indeed recognises and protects the importance of public open spaces as one of the special infrastructures that are required in a

development area. The role of planning is to allocate land uses in a compatible and sustainable way across many components in the development process, including the provision of open spaces, green spaces, and spaces for recreational use (Aziz, 2012).

In Malaysia's Five-Year Plan (MFYP), The importance of landscape is acknowledged in the Malaysia Five Year Plan, which aligns with the aspiration to transform Malaysia into a developed, clean, and beautiful Garden Nation. Malaysian 12th plan (2021 – 2025) is anchored on three key themes focusing on resetting the economy, strengthening security, well-being, and inclusivity as well as advancing sustainability.

Table 1.1: Policy in Malaysia related to landscape and development

Policy	Aim
Malaysia Five-Year Plan (MFYP)	The importance of landscape is acknowledged in the Malaysia Five-Year Plan, which is in line with the aspiration to transform Malaysia into a developed, clean, and beautiful Garden Nation.
National Landscape Policy	The National Landscape Policy is a development policy that aims at creating a holistic, quality, unique identity and sustainable landscape to realize the vision of Beautiful Garden Nation that can improve the quality of life and increase economy competitiveness.
National Forestry Policy	The National Forestry Policy underlines the importance of the protection and conservation of forests through systematic forest development programs with appropriate civil cultural practices to achieve maximum productivity from permanent forest reserves. These will be managed based on the principles of sustainable product management to maximize socio-economic benefits and environment.
National Urbanisation Policy	The National Urbanisation Policy emphasizes the formation of a city image and identity that is appropriate to local functions and culture and this can be translated through landscape developments and the preparation of comprehensive Landscape Master Plans.
Environmental Policy	The Environmental Policy aimed at achieving a clean, safe, healthy, and productive environment for the present and future generations. It was also formulated to achieve the goal of sustainable development through optimal and effective means.
National Biodiversity Policy	The National Biodiversity Policy underlines the importance of conserving Malaysia's biodiversity and ensuring the Nation's biodiversity resources are wisely managed for future generations.

(Source: National Landscape Policy, Malaysia Beautiful Garden Nation)

Thus, each of the policies will be interpreted according to their needs. However, most of the policies focus on sustainability, reserves, and function for society and the environment, not only for the short term but also for future generations.

1.1.2 Visual Aspect

To achieve the vision and mission of Malaysia's policies and government, public acceptance in urban spaces is intimately tied to visual perception and has the potential to meet their requirements (Zhou et al., 2023). According to Zhuang's (2021) study, colour, as a fundamental feature of human vision, should be the most significant visual attribute that influences emotional perception. When conducting a survey, it is preferable to utilize visual presentations rather than verbal questions because the image given can differ from the respondent's mental composition and, as a result, can condition their visual acceptance (López-Martínez, 2017). Although photographing a landscape has significant limits, it is the most commonly used and valid tool for evaluating a landscape's attractiveness. Tveit et al. (2006) stated an alternative way to explain environmental acceptance, proposing a set of visual indicators based on landscape aesthetic theory that may be used to analyse the visual character of landscapes (Häfner et al., 2017).

1.2 Problem Statement

The Ninth Malaysia Plan (2016-2020) has set out objectives in an endeavour to make the country more self-sufficient. However, there is no specific act or law that controls the standard of landscape in Malaysia whereas landscape design and planning are generally based on a particular project by a separate entity, developer, client, or local authority (Hussain & Byrd, 2012). The loss of diversity, coherence, and identity that characterizes the contemporary landscape alterations is seen adversely (Antrop, 2005).

i. Lack Of Green Space

Urban parks and green spaces have been developed in Malaysia since the colonial era in the late 19th century. Kuala Lumpur's urban green spaces have largely been transformed into urban areas due to the city's rapid urbanisation process (Nur Syafiqah et al., 2018). Urbanisation and population growth have greatly increased urban development, compromising urban green space. With the lack of land availability in the city and efforts to build new housing projects and infrastructure, there is now a growing call for development to encroach on green spaces around the city limits (Abu Kasim et al., 2018; Kanniah, 2017). Kuala Lumpur is losing a lot of green space due to rapid urbanisation and population growth. As of 1997, Kuala Lumpur was severely lacking green space. Furthermore, this development also affects the urban parks and green spaces planning and maintenance for urban aesthetics (Abu Kasim et al., 2018).

AG Report: Land use zone performance not in line with PBRKL 2020

By Bernama - September 28, 2021 @ 4:15pm



(Source: www.nst.com.my Bernama, 28TH September 2021)

ii. Limited Biodiversity

Urban parks are increasingly important in supporting ecosystem services and adapting to changing urban environments. Despite the numerous advantages of urban greenery, urban land expansion, notably in Malaysia, has resulted in its destruction and degradation (Kanniah, 2017). According to the 2008 IUCN Red List, Malaysia is home to 1,141 threatened species, including both plants and animals. Thus, its landscapes must meet the ecological requirements of cities to address environmental issues (Haq, 2011) and counter the effect of green space decline (Heidt & Neef, 2007). This suggests that urban parks, alongside leisure and recreational facilities, have the potential to expand their multifunctional responsibilities as part of a broader urban green infrastructure that meets the needs of a growing population (Chiesura, 2004). However, the study recognizes that while changing the urban park's landscape to expand its role toward environmental function, its naturalistic appearance may influence public perceptions (Iverson Nassauer, 1995).

iii. Environmental Issues

Rapid urbanisation and population growth have contributed to many environmental problems in metropolitan areas. One of the issues is climate change. In addressing the issues of climate change the National Landscape Department is committed to realizing Malaysia's commitment to the protection and conservation of natural resources as declared in the Langkawi Declaration (1989), the Rio De Jenario Earth Summit (1992), and COP15 (U.N. Climate Change Conference 2009) (Malaysia Beautiful Garden Nation – National Landscape Policy, p. 3). Effective implementation of naturalistic landscapes in urban parks depends on how the general public understands its ecological benefits (Jiang & Yuan, 2017). The naturalistic landscape could be part of the integrated nature-based solutions for delivering multiple ecological services, such as erosion control (Barau, 2015); stormwater management (Duke et al.,

2016; Laffta & Al-Rawi, 2018); biodiversity conservation, microclimate reduction, besides sociocultural aspects such as human health and well-being (Hwang et al., 2019). However, there was a trend toward severe rainfall intensity in the west coast region, which led to frequent flash floods in Kuala Lumpur. Further research on seasonal rainfall between 1980 and 2010 showed a drop in rainfall in Peninsula Malaysia (Suhaila, et.al., (2010). This day, we often hear Kuala Lumpur is facing flood and stormwater. It should be acknowledged that urban woodland vegetation is an important component of improving the quality of urban ecosystem services by lowering flood danger and storing rainfall (Ghalehtemouri et al., 2023) Therefore, there is a need to assess public understanding and acceptance of this landscape design style. It would serve as a significant input to guide its implementation for ensuring short-term and long-term sustainable management of this design approach in Kuala Lumpur's urban parks.

iv. Sustainable Landscape Versus Public Expectation

To achieve a sustainable landscape in Kuala Lumpur's city parks, transforming the current manicured landscape into a more naturalistic form could challenge park managers to address potentially unfavourable views by the public of their appearance. Additionally, the inclusion of certain naturalistic elements can create a different aesthetic view of the city parks. It would give an impression of the landscape being neglected and poorly maintained leading to condemnation of urban park landscapes. It is therefore important to emphasize the public expectation for a naturalistic landscape style to ensure a successful implementation of this style in urban parks. Consideration of public acceptance of the naturalistic landscape in urban parks could help landscape architects and park managers deliver this environmentally sustainable approach to creating a new park or upgrading an existing park.

The public's acceptance of naturalistic landscapes is an important factor to be considered as it helps determine how well it could be implemented on-site. Research on public acceptance shows that visual acceptance can affect how people view certain objects, such as landscapes. According to Carroll et al. (2014) support Hume's theory of taste that people's attitudes and tendencies toward particular ideas are greatly influenced by their assessment of how those ideas affect individuals and society as a whole. Furthermore, the theory argued that the aesthetic evaluation of a particular item or subject should follow a set of criteria that facilitate its acceptance by the majority rather than relying on one's judgment (cited by Carroll et al., 2014). Nassauer (1995) argues that the public may reject this ecological approach assuming it has been poorly planned and maintained.

1.3 Research Aim of Objectives

This study aims to understand the public's acceptance of the landscape style in Kuala Lumpur's urban parks, Malaysia which could help determine the potential

of changing towards a more naturalistic landscape style. The objectives of this study are to:

- i. To assess the public acceptance for landscape style in an urban park and changes towards naturalistic style.
- ii. To analyse the factor that influences public acceptance for naturalistic landscape style in an urban park.
- iii. To make recommendations for suitable naturalistic landscape style in Kuala Lumpur's urban park according to public acceptance.

1.4 Scope And Limitation Of Research

The scope of the study will be limited to (1) focus will be given in terms of naturalistic landscape style only. 2) This study will focus on the public acceptance of naturalistic landscape style. 3) The study area for the case analysis will focus on Kuala Lumpur's urban park only.

1.5 Significant Of Research

This research outcome will help determine the suitable criteria for the naturalistic landscape style based on public acceptance. It could serve as a basis for developing an appropriate landscape style for creating a more environmentally sustainable landscape for tropical urban parks. The public's acceptance of the naturalistic landscape style, including the environmental aspects and the aesthetic value in its design consideration, is vital for ensuring a successful implementation of such an environmentally sustainable approach to achieve its short-term and long-term goals.

1.6 Definition Of Terminologies

Public acceptance is the outcome of a process that includes finding interested or impacted parties, outlining problems, and setting up tools to make it easier to reach an agreement (NRC, 1996)

A naturalistic Landscape is a combination of a person's needs and desires with nature's dictates; its design cannot be premeditated because its inherent beauty is inextricably linked to the landscape on which it is created.

Urban parks include a wide range of different components. Apart from parks, these include woodland, water bodies, street tree and square plantings, cemeteries, private gardens, green roofs, community and allotment gardens, sports complexes, and so forth. Urban parks are commonly referred to as "parks" by local governments. (Konijnendijk et al., 2013).

1.7 Thesis Structure

This thesis consists of five chapters. The first chapter describes and expands on the background and context of the study, problem statement, research questions, aim and objectives, scope and limitation of the research, the definition of terminologies, and the significance of the study. Chapter two (2), will cover the literature review on towards sustainable development of urban green space, understanding the naturalistic landscape, public acceptance towards the natural urban park, naturalistic landscape design, factors that influence public acceptance, naturalness versus neatness, diversity, enclosure versus safety, environmental function, aesthetic value of naturalistic landscape, and relationship of public and urban park. Chapter three (3) describes the research methodology and strategies, including research design, study sites, survey questionnaire design, population sampling for the study, data collection techniques, pilot study, data collection procedure, and data analysis procedure. In this chapter, we discuss in more detail the research design that will help you achieve your research objectives. Findings and analysis are presented in chapter four (4). The final chapter, chapter five (5), is the summary, a recommendation for future research, and a conclusion.

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