

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif¹, Irnawaty Idrus^{1*}, Andi Annisa Amalia¹, Khilda Wildana Nur¹, Kasmawati Kasmawati², Lucke Ayurindra Margie Dayana³, Safwan Abdelmonem A. Alqawasmeh⁴

¹Department of Architecture, Faculty of Engineering, Universitas Muhammadiyah Makassar, Indonesia

²Water Resources Engineering Department, Faculty of Engineering, Universitas Muhammadiyah Makassar, Indonesia

³Urban and Regional Planning Department, Faculty of Engineering, Universitas Muhammadiyah Makassar, Indonesia

⁴Building B+, Wadi Alharieh, Palestine Polytechnic University, Hebron, Palestine

Corresponding Author: irnawatyidrus@unismuh.ac.id

Abstract

Keywords:

Child-friendly urban design; local cultural wisdom; sustainable urban spaces; community engagement; urban planning

This study explores the transformation of urban alleys in Makassar into child-friendly spaces by integrating local wisdom into urban design. Analysis was conducted on six alleys based on vocabulary terms to develop a child-friendly environment, considering the advantages of each alley. The results show that key elements such as murals depicting national heroes, traditional games, and historical narratives were employed to enhance the functionality and cultural significance of these public spaces. The project not only revitalizes the physical environment but also serves as a platform for cultural education and community engagement. The findings indicated that this culturally integrated approach can be replicated in other urban areas, particularly those with rich cultural traditions, to create sustainable and inclusive environments. The study highlights the significance of integrating local wisdom into urban planning to preserve cultural heritage, promote a sense of belonging, and enhance the quality of life for urban residents. This approach demonstrates the potential of culturally informed urban design to create vibrant, resilient communities that support the holistic development of children.

©2025 The Authors. Published by the University of Merdeka Malang, Indonesia.



Article History	Received	:	June 25, 2025
	Accepted	:	Aug 12, 2025
	Published	:	July 15, 2025

1. Introduction

Urban public spaces play a crucial role in the social and cognitive development of children, acting as arenas for play, learning, and social interaction. The design and availability of these spaces are increasingly recognized as crucial to creating child-friendly

environments, particularly in urban settings. The integration of local wisdom into urban planning has emerged as a strategy to ensure that these spaces are not only safe and accessible but also culturally resonant (Nur, 2020). This approach is particularly relevant in diverse cities like Makassar, where the dense urban fabric often limits the availability of traditional playgrounds, necessitating the innovative use of public spaces such as alleys and squares (Iskandar, 2023; Munisa, 2024).

The significance of child-friendly urban planning is underscored by international frameworks such as those advocated by WHO and UNICEF, which emphasize the right of children to safe and supportive environments. These initiatives underscore the importance of urban spaces that foster the comprehensive development of children, encompassing their physical, social, and emotional well-being. The challenge lies in adapting these global principles to the local context, particularly in cities with complex urban dynamics and cultural diversity like Makassar (Dimiyati et al., 2019; Pratama, 2024).

The rapid urbanization of Makassar has led to the emergence of densely populated residential areas where traditional playgrounds and parks are scarce. This urban condition has raised concerns about the availability and quality of public spaces that are conducive to children's development and well-being. The primary research problem addressed in this study is how to effectively utilize and transform existing urban public open spaces – specifically, alleys – into environments that are child-friendly and supportive of children's growth and interaction.

To address this challenge, the study proposes integrating local wisdom into the design and use of these spaces. By leveraging cultural practices and traditional knowledge, the study aims to create urban environments that resonate with the local community while providing safe and engaging spaces for children. This approach not only preserves cultural heritage but also adapts it to meet contemporary urban needs, thus offering a sustainable solution to the scarcity of conventional playgrounds in densely populated areas.

Research in urban planning and design has increasingly focused on the role of local wisdom in creating environments that are both culturally relevant and supportive of community needs. Studies have shown that integrating traditional knowledge into the planning of urban public spaces can enhance their functionality and inclusiveness, particularly for vulnerable populations such as children (Mulyani, 2023; Nurhayati et al., 2019). For example, educational initiatives rooted in local wisdom have been effective in fostering moral development and social skills among children, indicating the potential for these principles to be applied in urban design.

Furthermore, traditional games and storytelling, which are key components of local wisdom, have been utilized to enhance the quality of childcare services and educational methodologies. These practices not only support cognitive and social development but also strengthen cultural identity among young generations (Latief, 2024; Nurhasanah, 2023). By incorporating these elements into public space design, cities can create environments that are not only physically safe but also emotionally and culturally nurturing for children.

Additionally, the application of local wisdom in environmental management has been highlighted to achieve sustainable urban development. This approach aligns with the goals of creating child-friendly cities, where the environment is shaped to support the well-being and development of children (Munir et al., 2021). In the context of Makassar, integrating such traditional practices into the design of public spaces can provide culturally relevant solutions that address the unique challenges posed by dense urbanization.

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

The existing body of research provides substantial evidence on the benefits of integrating local wisdom into urban planning to create child-friendly environments. However, there is a notable gap in the specific application of these principles to the context of Makassar, particularly in utilizing non-traditional spaces, such as alleys and squares, for child-friendly purposes. While studies have explored the use of local wisdom in educational settings and environmental management, the direct application of these concepts to urban public spaces remains underexplored (Nuryana & Sahrir, 2021; Rahardi & Setyaningsih, 2019).

Moreover, much of the existing research focuses on creating new, purpose-built environments rather than transforming existing urban spaces. There is a need for studies that examine how existing urban infrastructure, especially in densely populated areas, can be adapted to serve as child-friendly spaces without extensive redevelopment. This gap is particularly relevant in cities like Makassar, where space is at a premium and innovative solutions are required to optimize available areas for community use (Ali et al., 2022; Ardi, 2024).

The objective of this study was to assess the potential of alleys in densely populated residential areas of Makassar to function as public open spaces that contribute to creating a child-friendly environment. The study aims to assess how these spaces can be optimized for outdoor play and social interaction among children, thereby supporting their overall development and well-being. This research is novel in its focus on transforming non-traditional urban spaces into child-friendly environments, integrating local wisdom into the design and utilization of these spaces.

The scope of this study was limited to public open spaces in urban residential areas in Makassar, especially in alleys. In line with the Makassar City Government's Strategic Program to improve the quality of the alleys, starting from the declaration of the Makassar Tidak Rantasa Program in 2014, *Lorong Sehat (Longset)* in 2015, and culminating in *Lorong Wisata (Lorwis)* in 2020. In 2022, the government plans to construct 1,095 alleys out of a total of 8,000 alleys, based on basic data from the Makassar City Public Works Office. The lorong composition features elements that showcase Makassar's cultural heritage and local wisdom, illustrating local traditions, ethnic diversity, and historical values in a contemporary format.

This study includes an analysis of six locations, examining dimensions, user demographics, activities, and the potential for these public open spaces to become child-friendly. This study was limited to the potential of these public open spaces to contribute to a child-friendly environment without further reviewing urban planning or policy implications outside this context.

2. Methods

A Review of Vocabulary on Children's Playscape

This study was a collaborative research project between the Architecture Program at Universitas Muhammadiyah Makassar (UNISMUH Makassar) and University Technology Malaysia (UTM). The project aims to enhance students' understanding of key vocabulary related to park planning, ecological planning, garden design, community well-being, and child welfare. UNISMUH Makassar students were divided into six groups, each consisting of 5 to 6 members. Each group was tasked with analyzing specific vocabulary terms essential for developing child-friendly environments (*Table 1*).

Table 1. Vocabulary Park Planning and Child-Friendly Environment Attributes

Item	Park Planning and Design for Community	Child-friendly Environment Dimensions and Attributes
1	Cultural ecosystem services	Natural learning and ecological literacy
2	Park connector and Green Corridor	Circulation network of outdoor learning
3	Carbon and water footprint	Environmental learning program
4	Treed Streets, including composition and structure for an urban orchard	Pathway and circulation for children
5	Health and Physical benefits gained from park visitation	Children's interaction and transaction
6	Spatial planning in a community park	Park properties for environmental learning
7	Urban wildlife species and habitat	Method of identifying birds, insects, and small mammals
8	Park visitation activities	Environmental learning program
9	Amenities and Materials of the Park	Children's play equipment, natural and artificial
10	Social cohesion and social connectivity	Friendship and acquaintanceship
11	Social inclusion and equality in an urban community	Sensibility and sensitivity
12	Fruit tree planting for economic purposes	Urban orchard as a play space for children
13	Socialization of residents in urban greenery	Social play and connectivity in children
14	Sustainable Development Goal 11	UN Convention on the Rights of the Child

The study materials were sourced from Landscape Architecture students at University Technology Malaysia (UTM). The vocabulary terms were carefully selected to ensure that students gain a comprehensive understanding of key concepts related to ecological and human health and well-being. This approach was designed to equip students with the scientific and technological knowledge necessary for effective planning and design of parks and open spaces in urban environments.

The focus of this research was to integrate these vocabulary terms into the design process, to develop schematic development plans that created environments conducive to children's play and ecological education. By understanding and applying these vocabulary terms, students were expected to create designs that not only meet the physical needs of children but also enhance their overall well-being by providing safe, inclusive, and ecologically sustainable spaces.

Site Inventory of Children's Playscape

The design and planning of children's playgrounds were carried out in several places in the environment along the main roads in Makassar. Participants from UNISMUH were responsible for selecting a location for the workshop. They conducted a site inventory and prepared a base map at a scale of 1:200 or 1:250 by walking around the neighborhood along the main road. The participants measured various environmental resources, including the size and shape of the land, topography, soil type, existing buildings and road systems, current greenery, utility supplies, user population, user types, climate factors, accessibility, and safety. They surveyed at least two streets, both of which ended in open spaces such as playgrounds, vacant lots, or spacious areas. The site inventory documentation included features of the location, as well as the layout of buildings and roads on the base map.

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

The research focused on public spaces, specifically alleys. Six locations were selected as sample locations for this study, including Alley 9 Kalumpang Street, Alley Kampung Buyang, Alley 85A Lompobatang, Alley Sawerigading Street, Alley Kita Rappokalling, and Alley 2 Ballaparang.

The theme for the design and planning of children's play spaces in urban environments included eight key concepts to translate ecological literacy and playground design approaches:

- My friends are my best friends,
- My secret place is my favorite space,
- Butterflies love flowers, dragonflies love water,
- Sensitivity and awareness: Differentiating cognitive functions through direct engagement,
- My friends define my play range,
- Play is a means to learn social skills,
- The ebb and flow of tides,
- Let us play, and curiosity leads to exploration and ends with discovery.

3. Result and Discussion

The Results and Discussion of this study are divided into two main sections. The first section outlines the analysis of 6 alley themes based on the potential of each area. Each theme is analyzed by considering unique characteristics, such as the presence of green spaces, accessibility, and public facilities, which influence the quality and functionality of play spaces for children. The findings indicate that areas with access to green spaces have a greater potential to be developed into play areas that support children's physical and mental development. Additionally, local community initiatives, such as creating simple toys and utilizing available public spaces, were identified as key factors in optimizing play spaces despite challenges in urban areas with limited land.

The second section discusses the implications of the analysis results for urban planning in Makassar and Malaysia. These findings offer valuable guidance for incorporating the needs of children's play spaces into urban planning. The study also emphasizes the importance of sustainability and cultural integration in designing play spaces, which can support environmental sustainability and enrich children's play experiences with local cultural values. Thus, the results of this study not only contribute to theoretical knowledge but also offer practical solutions for more child-friendly urban planning.

Findings from Makassar's Urban Spaces

Lorong Cerita Rakyat Nusantara

Field surveys conducted in *Lorong Cerita Rakyat Nusantara* (Lorong 9 Kalumpang Street, Makassar) revealed significant social and environmental characteristics in the area (Figure 1-a). The alley is characterized by a dense residential environment, with facilities such as paved roads, gutters, trash bins, and seating areas (Figure 1-b). Its residents, mainly daily laborers and small traders, engage in a variety of activities, including children's games, street vendors, and communal farming. Social interactions are lively, with routine activities including community service, social gatherings, and regular environmental

cleaning. These findings highlight the alley as a vibrant hub of social activity within the community.



Figure 1. (a) Location map of *Lorong Cerita Rakyat Nusantara* (Lorong 9 Kalumpang Street) in Makassar city [source: Google Maps]; (b) Field data collection survey; (c) Illustration of proposed design

The survey results align with existing literature on child-friendly urban design, which emphasizes the importance of integrating local wisdom and cultural elements into public spaces to enhance social cohesion and community engagement (Iskandar, 2023; Munisa, 2024). Unlike other urban studies that may overlook the specific cultural practices of local communities, this research underscores the significance of designing public spaces that resonate with the local population's social and cultural identities (Amalia & Fuadillah, 2024; Permana et al., 2023; Purbadi & Lake, 2024). The alley's use of murals depicting Indonesian folktales and the facilitation of traditional games (Figure 1-c) reflect a culturally tailored approach that fosters social inclusion and the transmission of local wisdom, as suggested by Dimiyati et al. (2019) and Pratama (2024).

The findings from the *Lorong Cerita Rakyat Nusantara* demonstrate the crucial role that culturally informed urban design can play in enhancing the livability of densely populated residential areas. The integration of traditional narratives and games into the alley's design not only preserves cultural heritage but also promotes a healthy, child-friendly environment that supports both social interaction and physical well-being. These insights have significant implications for urban planners and policymakers, suggesting that incorporating local wisdom and cultural elements into public spaces can be a viable strategy for creating sustainable and inclusive urban environments. The approach demonstrated in this study offers a replicable model for other cities aiming to balance modernization with cultural preservation (Mulyani, 2023; Nurhayati et al., 2019).

Lorong Permainan Tradisional

The field survey of *Lorong Permainan Tradisional* (Lorong Kampung Buyang) in Makassar (Figure 2a) revealed that the area functions as a vibrant community space (Figure 2 b). Despite its dense residential environment and lack of parks, the alley has been paved. It includes functional infrastructure such as sewers, mosques, schools, and neighbourhood security posts. Residents actively use the alley for various activities, including children

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

playing traditional games, cycling, socializing, and street vendors selling their wares. The alley's design, which includes murals and a space dedicated to traditional games, encourages children's active use and enhances residents' social interaction (Figure 2-c).



Figure 2. (a) Location map of *Lorong Permainan Tradisional (Lorong Kampung Buyang)* in Makassar city [source: Google Maps]; (b) Field data collection survey, (c) Illustration of design concept

The findings from *Lorong Permainan Tradisional* are consistent with the literature that emphasizes the importance of designing urban spaces that cater to children's needs while fostering social inclusion and cultural continuity (Bianchi, 2023; Wu et al., 2023). Unlike conventional urban designs that may overlook cultural elements, this alley integrates traditional games and community-centric activities, thereby enhancing both its cultural relevance and its functionality as a child-friendly space. The murals depicting traditional games such as *congklak* and *engklek* (Figure 2-c) serve not only as cultural preservation tools but also as interactive elements that engage children and educate them on cultural heritage, aligning with insights from L. Zhang et al. (2023) and Agarwal et al. (2021).

The results from the survey of *Lorong Permainan Tradisional* highlight the effectiveness of incorporating local wisdom and traditional cultural practices into urban design to create child-friendly environments. The alley's design, which blends cultural education with play, offers a model for other urban areas seeking to enhance the quality of life for residents while preserving cultural heritage. The integration of traditional games into the physical space supports not only physical activity but also social cohesion and cultural identity among the community's younger members. These findings suggest that urban planners and policymakers should consider similar culturally informed designs in other densely populated urban areas to create spaces that are both functional and meaningful for all residents (Sari, 2023; M. Wang, 2024).

Lorong Pasar Tradisional

The field survey of *Lorong Pasar Tradisional*, located at Lorong 85A on Gunung Lompobattang Street in Makassar (Figure 3-a), features infrastructural elements such as paving blocks, gutters, trash bins, and seating areas. The alley was actively used by a diverse group of people, including children, homemakers, street vendors, and motorcyclists, who engage in various activities such as playing, trading, and socializing.

The area also hosts communal activities, such as arisan (a rotating savings and credit association), gotong royong (community service), and posyandu (an integrated health service post), which enhance social inclusion and equality within the community (Figure 3-b).



Figure 3. (a) Location map of *Lorong Pasar Tradisional* (Lorong 85 Lompo Battang) in Makassar city [source: Google Maps]; (b) Field data collection survey; (c) Illustration of design concept

The design of *Lorong Pasar Tradisional* presents a vibrant depiction of a traditional market integrated into an urban alley setting. This alley serves as a green and healthy tourist destination in a densely populated area. Aligns with findings in the literature that emphasize the significance of child-friendly urban environments, which promote social interactions and community engagement (Wu et al., 2023). The alley's transformation into a traditional market-themed space, complete with murals depicting local produce and traditional games, integrates cultural education with play, thus fostering an environment conducive to both learning and leisure (Figure 3-c). Unlike other urban designs that may neglect cultural heritage, this alley highlights the role of traditional markets in community life, providing children with the opportunity to learn about local economic practices and social interactions. This is consistent with the research by Q. Zhang (2023), which stresses the importance of designing spaces that are not only functional but also culturally significant, engaging, and supportive of children's development.

The findings from *Lorong Pasar Tradisional* underscore the potential of integrating local wisdom and cultural practices into urban design to create spaces that are not only child-friendly but also deeply rooted in the community's cultural identity. By incorporating elements of a traditional market into the design, the alley serves as a living classroom where children can learn about trade, local produce, and traditional games, thereby reinforcing their cultural heritage while promoting active participation in the local economy. This approach aligns with the principles of sustainable urban design, which advocates for the creation of inclusive spaces that cater to the needs of all residents, particularly children (Sari, 2023; M. Wang, 2024). The practical implications of these findings suggest that similar culturally informed designs could be replicated in other urban settings to enhance community cohesion, preserve cultural heritage, and provide educational opportunities within public spaces.

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

Lorong Flora and Fauna Nusantara

The field survey conducted at *Lorong Flora and Fauna Nusantara*, located on Sawerigading Street, Makassar (Figure 4-a), reveals an alley situated in a densely residential area. It has basic infrastructure, including paved roads, sewers, and surrounding facilities such as mosques, schools, and neighborhood security posts. Residents in the area, primarily office workers and small traders, utilize the alley for various activities, including children's play, cycling, and social gatherings (Figure 4b). The design concept of this alley incorporates local flora and fauna into its surroundings. The design concept transforms the alley into a “mini forest,” featuring murals and plants native to Indonesia, alongside images of endemic animals such as the Komodo dragon, Cenderawasih, and Sumatran tiger (Figure 4-c).

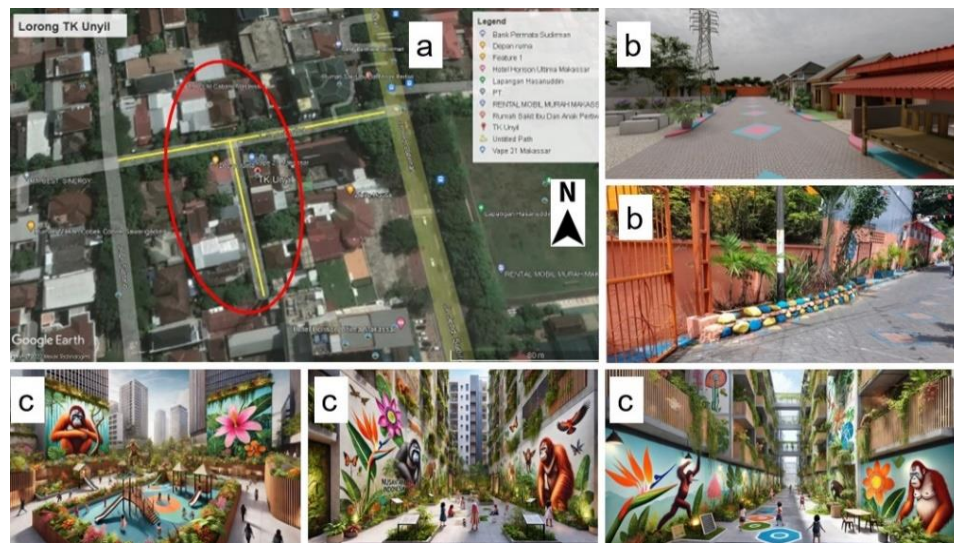


Figure 4. (a) Location map of *Lorong Flora dan Fauna Nusantara* (Sawerigading Street) in Makassar city [source: Google Maps]; (b) Field data collection survey, (c) Illustration of design concept

The *Lorong Flora dan Fauna Nusantara* project aligns with contemporary research emphasizing the importance of integrating natural elements into urban environments to enhance children's engagement and environmental awareness (Bianchi, 2023). Unlike many urban spaces that often overlook the inclusion of educational components, this alley's design fosters an interactive learning environment where children can explore and learn about local biodiversity through activities like scavenger hunts and plant identification games. This approach echoes the findings of L. Zhang et al. (2023), who emphasize the importance of creating engaging and educational environments within urban settings. Moreover, the project's emphasis on local flora and fauna introduces an innovative way to incorporate environmental education into daily urban life, which contrasts with more conventional urban parks that may not fully exploit such educational opportunities.

The transformation of *Lorong Flora dan Fauna Nusantara* into an urban mini forest with an educational focus on Indonesia's biodiversity offers significant scientific and practical implications. By incorporating elements of local flora and fauna into the urban design, the project not only enhances the aesthetic appeal of the alley but also serves as a tool for environmental education, promoting awareness of biodiversity and conservation among children and residents. This aligns with Wang's (2024) research on the role of urban design in sparking children's interests and encouraging exploration. Practically, this project can

serve as a model for other urban areas looking to integrate local environmental and cultural elements into public spaces, thereby fostering a greater connection between residents and their natural surroundings. The project also supports the idea of using urban spaces as platforms for sustainability education, contributing to the broader goals of environmental preservation and community engagement (Bianchi, 2023; Y. Wang, 2024; L. Zhang et al., 2023).

Lorong Budaya Daerah Nusantara

The field survey of *Lorong Budaya Nusantara* on Rappokalling Street in Makassar (Figure 5-a) highlights the integration of regional cultural elements into the urban alley environment. The alley was located in a densely populated residential area, which had basic infrastructure, such as paved roads and sewers, but lacked trash bins and parks. Existing facilities include a mosque, a school, and a neighborhood security post. Residents, mainly office workers and small traders, use the alley for various activities, including children's play, cycling, and social interaction (Figure 5-b). The alley has been creatively transformed with murals depicting traditional clothing, dances, and musical instruments from different regions of Indonesia, aiming to instill cultural pride and strengthen cultural identity among children (Figure 5-c).

The *Lorong Budaya Daerah Nusantara* project aligns with the growing body of research that emphasizes the importance of cultural preservation in urban design, particularly in child-friendly environments. Unlike conventional urban spaces that often focus solely on functionality, this project uniquely combines cultural education with recreational space, offering children opportunities to engage with and learn about Indonesia's diverse cultural heritage. This approach resonates with the findings of Y. Wang (2024), who underscores the role of urban planners in creating spaces that not only provide play opportunities but also foster educational and cultural experiences. Additionally, the project goes beyond just providing space for play by integrating cultural elements that promote cognitive and social development, a concept supported by L. Zhang et al. (2023), who advocate for child-friendly designs that stimulate physical and mental engagement.



Figure 5. (a) Location map of *Lorong Budaya Daerah Nusantara* (Rappokalling Street) in Makassar city [source: Google Maps]; (b) Field data collection survey, (c) Illustration of design concept

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

The transformation of *Lorong Budaya Daerah Nusantara* into a cultural-themed alley, focusing on traditional Indonesian elements, offers significant implications for urban design. Scientifically, it demonstrates how urban spaces can be leveraged as platforms for cultural education, thus contributing to the preservation of local heritage in an increasingly globalized world. Practically, this project serves as a model for how urban design can be both child-friendly and culturally enriching, providing a blueprint for other cities aiming to integrate local wisdom into their public spaces. This approach not only enhances the physical environment but also fosters a deeper connection between the community and its cultural roots, aligning with Ergler et al. (2020) and their emphasis on children's rights to access and engage with culturally relevant urban spaces.

Lorong Pahlawan Nasional Indonesia

The field survey at *Lorong Pahlawan Nasional Indonesia*, located on *Pelita Raya Lorong 2* in Makassar, reveals a densely populated residential area (Figure 6-a). Existing facilities include paved roads, sewers, trash bins, and important public infrastructure such as mosques, schools, and neighborhood security posts (Figure 6-b). The alley has been transformed to honor Indonesia's national heroes. It is decorated with murals of prominent national figures such as Soekarno, Kartini, and Diponegoro, along with brief descriptions of their contributions to the nation (Figure 6-c). It provides a platform for children and residents to engage in educational activities, promoting patriotism and historical awareness.

The development of *Lorong Pahlawan Nasional Indonesia* aligns with contemporary approaches to urban planning that emphasize the integration of educational and cultural elements in public spaces. The murals and educational activities offered in this alley are consistent with research highlighting the need for urban environments that not only provide recreational space but also foster learning and cultural engagement (Y. Wang, 2024). This approach contrasts with traditional urban designs that often prioritize functionality over cultural education. By incorporating national history and local wisdom into the design, the alley not only serves as a space for play but also as an informal educational environment, a feature that distinguishes it from more conventional playgrounds or parks (L. Zhang et al., 2023).

The transformation of *Lorong Pahlawan Nasional Indonesia* into a culturally and historically themed space exemplifies the practical application of integrating local heritage into urban design, with significant implications for both urban planning and community development. Scientifically, it supports the idea that child-friendly urban spaces can be both educational and engaging, contributing to a broader understanding of how cultural elements can be effectively incorporated into public spaces (Bianchi, 2023). Practically, this initiative provides a replicable model for other urban areas seeking to enhance community engagement and historical awareness through creative and educational urban design. This approach not only strengthens community ties by fostering a sense of pride and belonging but also enriches the educational landscape, making it a valuable addition to the urban environment (Bianchi, 2023; Y. Wang, 2024; L. Zhang et al., 2023).



Figure 6. (a) Location map of *Lorong Pahlawan Nasional Indonesia* (Pelita Raya Lorong 2 Street) in Makassar City [source: Google Maps]; (b) Field data collection survey, (c) Illustration of design concept

Implications for Urban Planning

Analyze the implications of these findings for future urban planning in Makassar and Malaysia.

The findings from the *Lorong* projects in Makassar and Malaysia have profound implications for urban planning, particularly in creating child-friendly and culturally resonant public spaces. These projects illustrate the potential of integrating local wisdom and cultural heritage into urban design, offering a replicable model for other cities seeking to balance modernization with cultural preservation. By focusing on child-friendly urban design that incorporates local cultural elements, planners can create environments that not only meet the physical and social needs of children but also strengthen community ties and promote cultural continuity.

The success of *Lorong Cerita Rakyat Nusantara* in Makassar, where traditional Indonesian folktales and games are integrated into the urban environment, highlights the importance of culturally informed design in enhancing the livability of densely populated residential areas. This approach not only preserves cultural heritage but also creates engaging, educational spaces that support social interaction and physical well-being, which are essential components of a child-friendly urban environment (Iskandar, 2023; Munisa, 2024). For urban planners, this highlights the importance of incorporating cultural elements into public spaces to promote social inclusion and community engagement, particularly in multicultural urban settings such as those found in Malaysia.

The *Lorong Permainan Tradisional* further demonstrates how traditional games can be integrated into urban spaces to create environments that are both functional and culturally significant. The murals and activities centered around traditional games serve as interactive educational tools that engage children and reinforce cultural identity, promoting social cohesion within the community (Bianchi, 2023; Wu et al., 2023). This model can be applied in other urban areas to enhance the cultural relevance of public spaces, making them more inclusive and reflective of the local population's cultural heritage.

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

In Malaysia, the transformation of the *Lorong Pasar Tradisional* into a space that merges traditional market themes with child-friendly design elements offers a unique approach to urban planning. By incorporating local economic practices and traditional games into the design, the alley becomes a living classroom that educates children about their cultural and economic heritage (Lim et al., 2021; Mansfield et al., 2021). This approach aligns with the principles of sustainable urban design, which advocate for the creation of inclusive spaces that cater to the needs of all residents, particularly children (Wang & Rao, 2021). Urban planners in other regions can draw on this model to create spaces that are not only functional but also deeply rooted in the community's cultural identity (Lee & Lee, 2021). In contrast to the corridor in the Kuala Lumpur city center, the Bukit Bintang area focuses on shopping centers, attracting modern urbanites with its sophisticated design. Key elements like open plazas and atriums enhance pedestrian traffic and the shopping experience, fostering community engagement (Azmi et al., 2019). Conversely, Tuanku Abdul Rahman Street, distinguished by its architectural diversity and heritage, combines transportation with tourism. The integration of green spaces and pedestrian paths enhances its urban environment, making it a significant focal point for visitors (Sarimin & Ibrahim, 2018).

The *Lorong Flora dan Fauna Nusantara* and *Lorong Budaya Daerah Nusantara* projects further illustrate the potential of integrating natural and cultural elements into urban design to promote environmental awareness and cultural education. The incorporation of local flora and fauna into urban spaces, as seen in the *Lorong Flora dan Fauna Nusantara*, not only enhances the aesthetic appeal of the environment but also serves as a tool for environmental education (Bianchi, 2023; L. Zhang et al., 2023). Similarly, the *Lorong Budaya Daerah Nusantara* project demonstrates how cultural education can be seamlessly integrated into urban spaces, fostering a sense of cultural identity and belonging among residents (M. Wang, 2024; L. Zhang et al., 2023).

The integration of these elements into urban planning has significant implications for the sustainability and inclusivity of urban environments. By prioritizing the incorporation of local wisdom and cultural heritage into urban design, planners can create spaces that resonate with the community's identity, fostering a sense of pride and ownership among residents. This approach not only enhances the aesthetic and functional quality of public spaces but also contributes to the broader goals of cultural preservation and community engagement, ensuring that urban environments remain vibrant and relevant in the face of modernization (Mulyani, 2023; Nurhayati et al., 2019).

In conclusion, the findings from the *Lorong projects* underscore the importance of culturally informed urban planning in creating sustainable, inclusive, and child-friendly public spaces. By integrating local wisdom and cultural elements into urban design, cities can enhance the livability of urban areas, preserve cultural heritage, and foster community engagement. This approach offers a viable strategy for urban planners and policymakers in Makassar, Malaysia, and beyond, providing a blueprint for the development of culturally resonant and sustainable urban environments.

Discuss the potential for replicating this model in other urban contexts, emphasizing sustainability and cultural integration

The findings from the study of various alley transformations in Makassar provide critical insights into the broader implications for urban planning, particularly in terms of replicating culturally integrated models in other urban contexts. The success of these

alleys—such as *Lorong Cerita Rakyat Nusantara* and *Lorong Permainan Tradisional*, among others—demonstrates the potential of integrating local wisdom and cultural elements into urban design to create sustainable, child-friendly spaces that resonate deeply with local communities.

Incorporating cultural elements into public spaces is a powerful tool for urban planners aiming to foster social cohesion and community engagement, as evidenced by the murals and traditional games that effectively preserve cultural heritage while promoting social interaction among children (Iskandar, 2023; Munisa, 2024). This approach not only enhances the functionality of urban spaces but also enriches their cultural relevance, making them more inclusive and reflective of the community's identity (Dimiyati et al., 2019; Pratama, 2024).

The replication of such culturally integrated models in other urban areas holds promise, particularly in cities facing the challenges of modernization and cultural preservation. Urban planners can adapt the principles demonstrated in Makassar by incorporating local traditions and cultural narratives into public spaces, thus creating environments that are not only sustainable but also deeply rooted in the local context (Mulyani, 2023; Nurhayati et al., 2019). Such integration ensures that modernization efforts do not erode cultural identities but rather reinforce them, fostering a sense of pride and belonging among residents.

Moreover, these models underscore the importance of community involvement in the urban planning process. The participatory design approach, which engages local communities in the planning and execution phases, is crucial for ensuring that the resulting spaces meet the needs and expectations of the community while also preserving cultural heritage (Sari, 2023; M. Wang, 2024). This not only promotes sustainability but also enhances the social fabric of urban areas by creating spaces that are meaningful and functional for all residents, particularly children.

In conclusion, the success of culturally integrated urban designs in Makassar highlights a replicable model that can be adapted for use in other cities, striking a balance between modernization and cultural preservation. By integrating local wisdom into urban planning, cities can create sustainable, inclusive environments that strengthen community ties and enhance the livability of urban spaces (Bianchi, 2023; Y. Wang, 2024; L. Zhang et al., 2023).

4. Conclusion

The transformation of urban alleys into child-friendly spaces by integrating local wisdom, as demonstrated in Makassar, highlights the significant potential of culturally informed urban design. This approach not only enhances the functionality of public spaces but also preserves and promotes the community's cultural heritage. By incorporating elements such as murals, traditional games, and historical narratives, these spaces become more than just recreational areas; they serve as platforms for cultural education and community engagement. The findings from this study suggest that such culturally integrated urban designs can be replicated in other regions, particularly those with rich cultural histories, to create sustainable and inclusive urban environments. These designs foster a sense of pride and belonging among residents while supporting the holistic development of children. Thus, integrating local wisdom into urban planning is crucial for creating vibrant, culturally resonant, and sustainable public spaces that reflect the community's identity and values.

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

Acknowledgements

This Research and Community Service is funded through the Internal Grant program for the 2022 Fiscal Year. By the Research Management Center of Universitas Muhammadiyah Makassar, with contract No. 005/KONTR-PENL/PENGABD/IV/1444/2022 issued on August 29, 2022. Therefore, the Authors would like to thank all parties who have assisted in the completion of this Research and Community Service, starting from the proposal stage, survey, analysis, and discussion of the results. This activity is a collaboration between the Architecture Study Program of the University of Muhammadiyah Makassar and University Technology Malaysia (UTM).

References

- Agarwal, M. K., Sehgal, V., & Ogra, A. (2021). Creating a Child-Friendly Environment: An Interpretation of Children's Drawings From Planned Neighborhood Parks of Lucknow City. *Societies*, 11(3), 80. <https://doi.org/10.3390/soc11030080>
- Ali, M., Husnifah, H., & Nurhayati, I. (2022). Materials on Early Childhood Education in the Family Based on Local Wisdom (Belief in Ancestors). *Nuraicon*, 1(1), 435-440. <https://doi.org/10.24090/nuraicon.v1i1.206>
- Amalia, A. A., & Fuadillah, S. (2024). Analisis Tingkat Keteraturan Bangunan Hunian Kelurahan Kampung Buyang Kota Makassar. *Journal of Green Complex Engineering*, 1(2), 79-88. <https://journal.gioarchitect.co.id/index.php/greenplexresearch/article/view/93>
- Ardi, R. F. P. (2024). Analysis of Students' Design Thinking in Creating 3D Creative Works Utilizing Mobile Technology Within the Framework of Local Wisdom. *Ijete*, 1(1), 15. <https://doi.org/10.33394/ijete.v1i1.10879>
- Azmi, A., Buliah, A. L., Ramaiah, A. K., Ariffin, H. F., & Ngelambong, A. (2019). *Tourist shopping styles and preferences in Kuala Lumpur, Malaysia*. Paper presented at the Proceedings of the Second International Conference on the Future of ASEAN (ICoFA) 2017-Volume 1: Business and Social Sciences. https://link.springer.com/chapter/10.1007/978-981-10-8730-1_10
- Bianchi, F. (2023). Designing Urban Spaces to Enhance Active and Sustainable Mobility: An Analysis of Physical and Symbolic Affordances in School Squares in the Metropolitan Area of Milan, Italy. *Sustainability*, 15(14), 11328. <https://doi.org/10.3390/su151411328>
- Dimyati, M., Fauzy, A., & Putra, A. S. (2019). Remote Sensing Technology for Disaster Mitigation and Regional Infrastructure Planning in Urban Area: A Review. *Telkomnika (Telecommunication Computing Electronics and Control)*, 17(2), 601. <https://doi.org/10.3390/su151411328>
- Ergler, C. R., Freeman, C., & Guiney, T. (2020). Pre-Schoolers' Vision for Liveable Cities: Creating 'Care-Full' Urban Environments. *Tijdschrift Voor Economische en Sociale Geografie*, 113(2), 131-150. <https://doi.org/10.1111/tesg.12461>

- Iskandar, I. (2023). Violence Against Children: The Impact of Social Media and Solving Social Problems Based on Local Wisdom in Makassar City, Indonesia. *Mitteilungen Klosterneuburg*.
- Latief, J. A. (2024). The Effectiveness of Pretend Play Method Based on Local Wisdom Towards Social Skills of Children. *International Journal of Religion*, 5(10), 503-510. <https://ijor.co.uk/ijor/article/view/5047>
- Lee, S.-Y., & Lee, M.-N. (2021). A Comparative Study on Child Rights Recognition and Child-Friendly Cities by Region. *Asia-pacific Journal of Convergent Research Interchange (APJCRI)*, 85-97. <http://dx.doi.org/10.47116/apjcri.2021.03.08>
- Lim, S. B., Malek, J. A., Rashid, M. F. A., & Kong, Y. C. (2021). Rethinking density in urban planning: Policy directions in the post-COVID-19 era in Malaysia. *Planning Malaysia*, 19.
- Mansfield, R. G., Batagol, B., & Raven, R. (2021). "Critical agents of change?": Opportunities and limits to children's participation in urban planning. *Journal of Planning Literature*, 36(2), 170-186. journals.sagepub.com
- Mulyani, M. (2023). Educational Board Game Design Based on Local Wisdom for Youth to Support Social Sustainability Learning. *Iop Conference Series Earth and Environmental Science*, 1256(1), 012006. <https://iopscience.iop.org/article/10.1088/1755-1315/1256/1/012006>
- Munir, M., Sagena, B., & Prajawati, M. I. (2021). Soyo Practice: Revitalization of Local Wisdom Values in the Community Empowerment of the Modern Management Era. *European Journal of Business Management and Research*, 6(1), 206-211. <https://ejbmr.org/index.php/ejbmr/article/view/728>
- Munisa, M. (2024). Digital Literacy Based on Local Wisdom in Inclusive Education. *Pionir Jurnal Pendidikan*, 13(1). <https://pdfs.semanticscholar.org/44bd/09ac9786b1a1070a15c90dbce9f10ea2387a.pdf>
- Nur, K. W. (2020). Alley activation: Genius loci to construct a resilient city. *Journal of Architecture and Urbanism*, 44(1), 63-68. <https://doi.org/10.3846/jau.2020.11015>
- Nurhasanah, N. (2023). Environmental Literacy Based on Local Wisdom in Elementary Schools. 803-813. https://doi.org/10.2991/978-2-38476-096-1_84.
- Nurhayati, Amrullah, A., Fitriana, & Awalunisah, S. (2019). The Storytelling Method Based on Local Wisdom on Moral Values of 5-6 Years Old Children. <https://doi.org/10.2991/icei-19.2019.92>
- Nuryana, N., & Sahrir, D. C. (2021). The Role of Teachers in Internalizing the Values of Local Wisdom in Madrasah Ibtidaiyah. *Al Ibtida Jurnal Pendidikan Guru Mi*, 8(1), 116. <http://dx.doi.org/10.24235/al.ibtida.snj.v8i1.8104>
- Permana, C. T. H., Mukaromah, H., & Astuti, W. (2023). Creative Kampong and the Promotion of Sustainable Development Knowledge in Urban Grassroots: The Case of Surakarta. *Local Wisdom: Jurnal Ilmiah Kajian Kearifan Lokal*, 15(2), 137-155. <https://doi.org/10.26905/lw.v15i2.9891>
- Pratama, M. R. A. (2024). Analysis of Service Quality in Early Child Care Services Businesses Using Servqual and Quality Function Deployment. *Jurnal Teknik Industri*

Cultural Integration in Public Spaces: Enhancing Child-Friendliness through Local Wisdom in Makassar and Malaysia

Sahabuddin Latif, Irnawaty Idrus, Andi Annisa Amalia, Khilda Wildana Nur, Kasmawati Kasmawati, Lucke Ayurindra Margie Dayana, Safwan Abdelmonem A. Alqawasmeh

Jurnal Hasil Penelitian Dan Karya Ilmiah Dalam Bidang Teknik Industri, 10(1), 91.
<http://eprints.umg.ac.id/10635/>

- Purbadi, Y. D., & Lake, R. C. (2024). The Humanistic-Anthropocosmic Paradigm as a Framework for Transforming Slum Settlements in Indonesia. *Local Wisdom: Jurnal Ilmiah Kajian Kearifan Lokal*, 16(2). <https://doi.org/10.26905/lw.v17i2.13987>
- Rahardi, K., & Setyaningsih, Y. (2019). Today's Local Values of Traditional Children's Games: A Methaphorical Ecolinguistics View. *Linguistik Indonesia*, 37(2), 101-118.
- Sari, D. P. (2023). Green Open Space Planning Using the Sustainable Child-Friendly Concept (Case Study: Kampung Seketeng, Sumbawa). 481-491.
- Sarimin, M., & Ibrahim, N. (2018). Assessing a Walkable Environment in Jalan Tuanku Abdul Rahman, Kuala Lumpur, Malaysia. *Planning Malaysia*, 16. <https://doi.org/10.21837/pm.v16i7.516>
- Wang, H., & Rao, X. (2021). A morphological history of urban centers in Qingdao. *Computational Urban Science*, 1, 1-15. <https://doi.org/10.21837/pm.v16i7.516>
- Wang, M. (2024). Visual Design and Evaluation of Public Space Scene Based on Virtual Reality Technology. *Jes*, 20(3s), 1767-1776.
- Wang, Y. (2024). Unveiling the Magic of Mega-City Block Environments: Investigating the Intriguing Mechanisms Shaping Children's Spontaneous Play Preferences. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1354236>
- Wu, Z., Wu, Z., Liu, Y., & Yang, Z. (2023). Using Space Syntax in Close Interaction Analysis Between the Elderly: Towards a Healthier Urban Environment. *Buildings*, 13(6), 1456. <https://doi.org/10.3390/buildings13061456>
- Zhang, L., Xu, X., & Guo, Y. (2023). The Impact of a Child-Friendly Design on Children's Activities in Urban Community Pocket Parks. *Sustainability*, 15(13), 10073. <https://doi.org/10.3390/su151310073>
- Zhang, Q. (2023). Towards Child-Friendly Streetscape in Migrant Workers' Communities in China: A Social-Ecological Design Framework. *Land*, 12(10), 1826. <https://doi.org/10.3390/land12101826>