



# Sulapa Eppa'na of Walasuji: A Sustainable Concept of Buginess Traditions for Sustainable Development in Palu, Indonesia

**Muhammad Saleh**

Tadulako University, Palu, Indonesia

**Ahda Mulyati**

Tadulako University, Palu, Indonesia

**Zaenal Sirajuddin**

Tadulako University, Palu, Indonesia

## ABSTRACT

*Walasuji - Sulapa Eppa'na* is a cultural symbol of the Bugis-Makassar ethnic group in South Sulawesi, rich in local wisdom values that reflect spirituality, identity, mutual cooperation, and human responsibility in preserving nature. Its geometric pattern, composed of stacked quadrilaterals resembling a rhombus, is not merely an aesthetic ornament but also symbolises the human journey towards perfection and their relationship with God. This concept represents the four main elements of life: God, humanity, the heavens, the earth, and all its contents. However, in the Palu Valley, with its history of migration of the Bugis-Makassar ethnic group, these values have begun to degrade due to globalisation, acculturation in form, materials, function, interest, and the younger generation's understanding of ancestral traditions. As a result, *Walasuji - Sulapa Eppa'na* has become increasingly rare in the traditional wedding ceremonies of the Bugis-Makassar-Kaili ethnic community, known as "*To Kaili*." This research employs a qualitative method, which is then analysed descriptively to identify the reasons behind the degradation of the *Walasuji - Sulapa Eppa'na* cultural symbol. The aim of this research is examine the degradation of the *Walasuji - Sulapa Eppa'na* cultural symbol and to explore the potential for reinvigorating its traditional values. This investigation seeks to identify how these values can be integrated into contemporary architecture to promote sustainable development. The results show that although degradation has occurred, a small part of the Bugis-Makassar-Kaili community continues to strive to preserve their cultural identity, including their responsibility to protect nature. This study recommends integrating *Walasuji - Sulapa Eppa'na* values into urban development concepts to realise sustainable development.

**Keywords:** *Walasuji Sulapa Eppa'na*, *To Kaili*, Local Wisdom Values, Palu Valley, Sustainable Development.

## INTRODUCTION

The culture of Palu City, associated with the *Kaili* ethnic group, has a historical connection with the Bugis-Makassar ethnic group, dating back to the 8th to 9th century AD [1]. In *La Galigo*, it is narrated that Sawerigading once visited the land of *Kaili*, marking the beginning of interactions between the two ethnic groups in Palu Bay. The migration of the seafaring Bugis-Makassar

people from South Sulawesi to Central Sulawesi had a significant influence. They settled around Palu Bay and into the Palu Valley, forming new communities through processes of acculturation, diffusion, and assimilation. This community became known as *"To Kaili."* [2], who are now the predominant population in Palu City. Therefore, it can be said that the culture which has had the most significant impact on the development of *"To Kaili"* culture in Palu City is that of the Bugis-Makassar ethnic group [3].

According to Mattulada, the Bugis-Makassar culture has had a profound influence on *"To Kaili."* culture, as described in his work *"The Cultural History of To Kaili"* [4]. *To Kaili* is an ethnic group with a strong identity defined by their language, customs, communal solidarity, genealogical kinship, and territorial awareness, which serve as a social adhesive and distinguish them from other groups.

One of the Bugis-Makassar traditions influencing the descendants of the Bugis-Makassar-Kaili ethnic group in the Palu Valley can be seen in wedding ceremonies. In these ceremonies, there is usually a *baruga* or gate called *Walasuji - Sulapa Eppa'na*, placed in front of the bride's home. This structure is made from carefully selected bamboo woven into a geometric pattern resembling stacked rhombuses, known as *Sulapa Eppa'na*. The pattern is believed to have originated from the *Lontara* script [5], the Bugis-Makassar alphabet system initially inscribed on *lontar* palm leaves [6] [7] [8]. This script was later simplified by Daeng Pamatte, a harbourmaster of the Gowa Kingdom [9].



**Figure 1: The Origins of the Sulapa Eppa'na Shape, in the Meaning of the New Lontara Script**

Source: <https://www.dailysports.id/umum/14956/aksara-lontara>

*Walasuji - Sulapa Eppa'na* symbolises the key elements of life: God, humanity, the heavens, the earth, and all its contents [6], representing the connection between the macrocosm and microcosm. The microcosm includes air, water, fire, and earth, forming a unified whole within human life [10]. The Bugis-Makassar community upholds the principles of *Sulapa Eppa'na* to preserve local wisdom values, creating harmony between humans and their environment, thus manifesting their culture as a reflection of cosmography.

This tradition was brought by Bugis-Makassar migrants to the Palu Bay area. However, the *Walasuji - Sulapa Eppa'na* symbol has now become increasingly rare in the wedding ceremonies of the younger generation of the Bugis-Makassar-Kaili *"To Kaili"* ethnic community in Palu City. One cause of the degradation of local cultural values is the impact of globalisation [11] [12] [13], which presents challenges of modernisation through advancements in communication and information technology. This has influenced societal behavioural patterns, particularly among the younger generation, both positively and negatively.

One of its negative effects is the emergence of lifestyles that tend to prioritise materialism and individualism [2] [14]. Without the reinforcement of local wisdom values, people's lifestyles and mindsets drift further from ancestral culture, ultimately leading to alienation from cultural heritage [2].

The local wisdom of *Walasuji - Sulapa Eppa'na* is increasingly eroded by the changing times and a preference for efficient lifestyles. The process of its creation, which was once carried out through *gotong-royong* (mutual cooperation), has now been replaced by simpler modern decorations. As a result, the understanding of the values and meaning behind *Walasuji - Sulapa Eppa'na* is fading. Many members of society now prefer modern cultural expressions, which are perceived as more practical compared to traditional ones [15]. Consequently, the younger generation is becoming less interested in learning about and inheriting their ancestral heritage. The values embodied in *Sulapa Eppa'na* reflect local wisdom in environmental preservation through sustainable practices, such as efficient water resource management [16], which serves as renewable energy utilisation, including wind energy [17]. Furthermore, sustainable development is closely related to the soil ecosystem, encompassing the preservation of soil microbiomes and the prevention of soil degradation as the foundation of urban ecosystems [18]. Meanwhile, fire can be harnessed as an alternative energy source by converting combustion heat into electricity using *Thermoelectric Generator* (TEG) technology [19], which operates based on the Seebeck effect. This technology has the potential to be an environmentally friendly solution [20] by optimising agricultural, industrial, office, and household waste to produce renewable electrical energy through heat conversion.

Culture, as a vital element of life, requires special attention in its revitalisation [21]. The integration of cultural values into urban development can maintain a balance between physical and non-physical aspects [22]. Traditional art applied in urban development becomes an essential strategy for achieving sustainable development, reflecting human life rooted in spiritual values, including religiosity, architecture, art, philosophy, and governance [2].

Revitalisation does not solely aim to create visually beautiful spaces but also meaningful and engaging ones [22]. A holistic approach based on local wisdom, adapted to modern environmental challenges, is urgently needed. The uniqueness of local wisdom can also support the creative economy of communities. Therefore, revitalising local wisdom through community contributions is essential, not only for achieving sustainable development but also for enriching the social and cultural aspects at the local level [17].

## LITERATURE REVIEW

Local culture is a distinctive identity that differentiates a community from other nations [23]. Traditional art, apart from its aesthetic value, also contains values and life strategies that need to be understood and implemented in daily activities [24]. Local cultural values play a significant role in shaping the identity and character of a community [25]. The active contribution of the local community is a key factor in the preservation of culture itself [26], which can support sustainable development, strengthen cultural identity, and improve community welfare [27].

Local wisdom represents a heritage of knowledge [28], skills, and values passed down through generations within a community [29]. With the active involvement of the community in

regional development, local wisdom can serve as the foundation for wise and sustainable policies [30].

Local wisdom plays a crucial role as competitive social capital in sustainable development by encouraging community participation, preserving cultural heritage, and promoting environmental conservation [16]. The sustainable development model, consisting of three pillars—social, economic, and environmental—is often considered incomplete as it fails to incorporate the cultural element [31].

Over the past few decades, culture has increasingly been acknowledged in various international policies, such as in the “*Hangzhou Declaration*” [32], which emphasises the importance of placing culture at the heart of sustainable development policies, and the “*Florence Declaration*” [33], which provides guidelines for maximising the contribution of culture in achieving sustainable development goals [34].

One of the latest initiatives is the *Cost Action Cultural Sustainability* project, funded by the European Union, which aims to position culture as a key element in sustainable development [16].

## METHOD

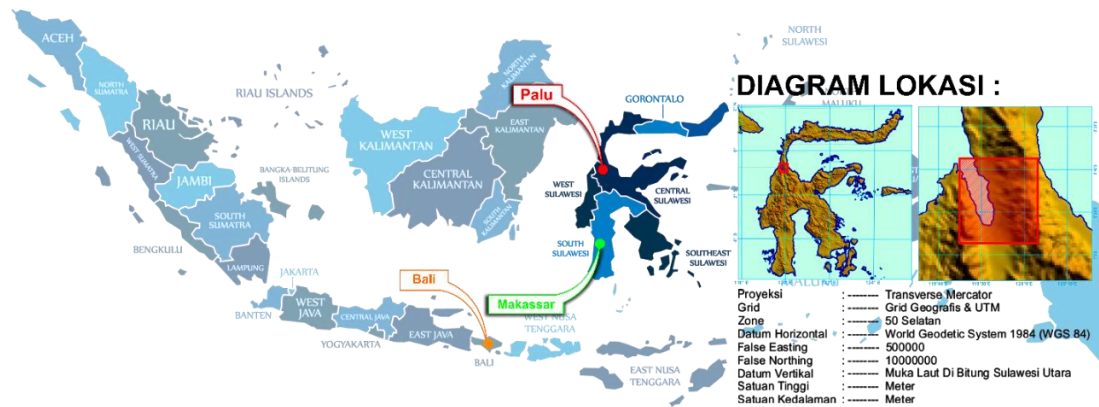
### Research Methods

This study uses a qualitative method with descriptive analysis of local wisdom values to identify the degradation of the *Walasuji - Sulapa Eppa'na* cultural symbol among the Bugis-Makassar-Kaili ethnic community in the Palu Valley and to explore the possibility of revitalising these values in urban development to achieve sustainable development.

The research object is the users of the *Walasuji* building, including the *Sulapa Eppa'na* values, while the research sample consists of *Walasuji - Sulapa Eppa'na* buildings. The sampling techniques used are purposive and incidental sampling. Data collection is conducted through in-depth interviews with panrita or sanro bola, craftsmen, and users of the *Walasuji - Sulapa Eppa'na* building. Both sampling techniques are employed as needed, with purposive sampling for more targeted results and incidental sampling for more spontaneous data.

### Research Location

The research is located in the city of Palu, the capital of Central Sulawesi Province. The Palu region includes mountains, valleys, rivers, bays, and seas. Geographically, Palu is situated between 0°36'–0°56' S and 119°45'–121°1' E, with an elevation ranging from 0 to 700 meters above sea level, covering an area of 395.06 km<sup>2</sup> [1].



**Gambar 2: Peta Lokasi Studi**  
Sumber: RTRW Kota Palu 2010 – 2030

**Data**

The data sampling technique employs a purposive approach with several inclusion criteria, namely: a) *Walasuji* buildings that implement the *Sulapa Eppa'na* concept, b) The use of "*Batu*" bamboo, or in the local language "*Volo Vatu*," as the primary material, c) The location of the *Walasuji* buildings within the city of Palu. To facilitate the selection of samples, these criteria are summarised in a table that explains their relevance to the research focus.

**Table 1: Inclusion criteria based on purposive sampling**

No.	Criteria	Description	Research Object
1.	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i>;</li><li>Construction material, <i>Petung</i> bamboo or <i>Batu</i> bamboo, which in the local Kaili language is called <i>volo vatu</i></li><li>Location of Palu City.</li></ul>	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li><li>Using <i>Batu</i> bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li><li>Located at Venna Garden Block E, Palu</li></ul>	
2.	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i>;</li><li>Construction material, <i>Petung</i> bamboo or <i>Batu</i> bamboo, which in the local Kaili language is called <i>volo vatu</i></li><li>Location of Palu City.</li></ul>	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li><li>Using <i>Batu</i> bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li><li>Located in the Untad Lecturer Housing, Palu</li></ul>	
3.	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i>;</li><li>Construction material, <i>Petung</i> bamboo or <i>Batu</i> bamboo, which in the local Kaili language is called <i>volo vatu</i></li><li>Location of Palu City.</li></ul>	<ul style="list-style-type: none"><li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li><li>Using <i>Batu</i> bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li></ul>	

		<ul style="list-style-type: none"> <li>Located on Pelita 1 Street, Palu.</li> </ul>	
4.	<ul style="list-style-type: none"> <li>Applying the concept of Sulapa Eppa'na;</li> <li>Construction material, Petung bamboo or Batu bamboo, which in the local Kaili language is called <i>volo vatu</i></li> <li>Location of Palu City.</li> </ul>	<ul style="list-style-type: none"> <li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li> <li>Using Batu bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li> <li>Located on Asam 1 Street, Palu</li> </ul>	
5.	<ul style="list-style-type: none"> <li>Applying the concept of Sulapa Eppa'na;</li> <li>Construction material, Petung bamboo or Batu bamboo, which in the local Kaili language is called <i>volo vatu</i></li> <li>Location of Palu City.</li> </ul>	<ul style="list-style-type: none"> <li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li> <li>Using Batu bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li> <li>Located on Urip Sumoharjo Street, Palu</li> </ul>	
6.	<ul style="list-style-type: none"> <li>Applying the concept of Sulapa Eppa'na;</li> <li>Construction material, Petung bamboo or Batu bamboo, which in the local Kaili language is called <i>volo vatu</i></li> <li>Location of Palu City.</li> </ul>	<ul style="list-style-type: none"> <li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li> <li>Using Batu bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li> <li>Located on Touwa Street, Palu</li> </ul>	
7	<ul style="list-style-type: none"> <li>Applying the concept of Sulapa Eppa'na;</li> <li>Construction material, Petung bamboo or Batu bamboo, which in the local Kaili language is called <i>volo vatu</i></li> <li>Location of Palu City.</li> </ul>	<ul style="list-style-type: none"> <li>Applying the concept of <i>Sulapa Eppa'na</i> as a key element in the art of <i>Walasuji</i> architecture;</li> <li>Using Batu bamboo (<i>volo vatu</i>) as the primary material in its construction; and</li> <li>Located in the Untad Lecturer Housing, Palu</li> </ul>	

Source: Observation and Visual Observation

In addition, observations were conducted to examine the objects, surroundings, and the behaviour of the craftsmen and users of the *Walasuji - Sulapa Eppa'na*. These observations were carried out to complement the interviews with incidental samples, where respondents were selected based on predefined relevance. This combination ensures a deep understanding and data validation related to the implementation of *Sulapa Eppa'na* cultural elements in the art of *Walasuji* buildings in the city of Palu. The respondents' data are presented in Table 2 to reinforce the findings.

**Tabel 2: Respondents based on incidental sampling**

Interview Time	Respondent	Age	Status/Occupation/Profession	Ethnic Community	Domicile
3 Nov 2024 15.50 Wita	Daeng Elling	57	Wood Craftsmen and Walasuji - Sulapa Eppa'na	Bugis Bone - Sinjai	Dayodara Street, Palu
3 Nov 2024 10.19 Wita	Po Ucce	61	Wood Craftsmen and Walasuji - Sulapa Eppa'na	Makassar - Maros	Otista Street, Palu
8 Nov 2024 18.05 Wita	Daeng Ucup	67	Wood Craftsmen and Walasuji - Sulapa Eppa'na	Bugis Sinjai	Suprpto Street, Palu
10 Nov 2024 18.31 Wita	Daeng Muhtar	71	<i>Panrita Bola/Sandro Bola</i>	Bugis Pinrang	Maleo Street, Palu
10 Nov 2024 10.25 Wita	Abbas	55	Walasuji Craftsmen and Processed Wood Craftsmen	Bugis – Kaili Ledo	Palu – Sigi Border (Biromaru)
17 Nov 2024 16.23 Wita	Zulfinardi, S. T	49	Users of Walasuji - Sulapa Eppa'na	Bugis Sengkang – Kaili Taweili	Venna Garden Block E, Palu
24 Nov 2024 20.19 Wita	Burhanuddin	52	Users of Walasuji - Sulapa Eppa'na	Bugis-Makassar	Asam 1 Street, Palu
1 Des 2024 13.35 Wita	Allang	49	Users of Walasuji - Sulapa Eppa'na	Bugis – Kaili Tara	Pelita 1 Street, (Palupi Housing), Palu
7 Des 2024 16.00 Wita	To Be Name	63	Users of Walasuji - Sulapa Eppa'na	Bugis Wajo - Kaili	Urip Sumoharjo Street, Palu
15 Des 2024 17.06 Wita	Unding	53	Users of Walasuji - Sulapa Eppa'na	Makassar - Bugis - Kaili	Dewi Sartika Street

Sumber: Direct Observation and Interview

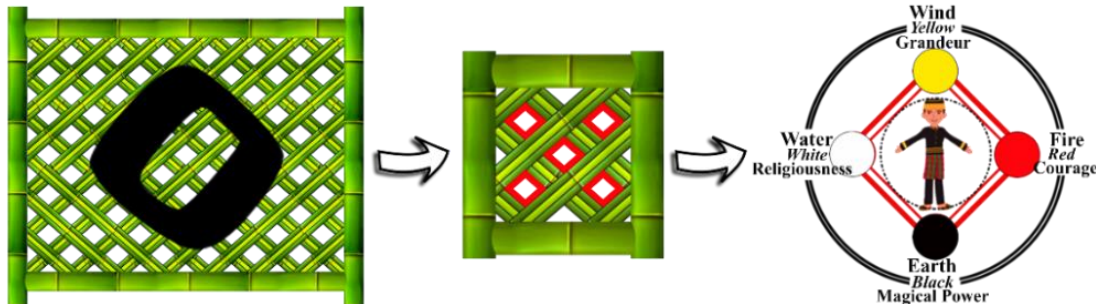
## RESULT

*Walasuji* is a combination of the words “*Wala.*” meaning fence, separator, or protector, and “*Suji.*” meaning daughter. Physically, *Walasuji* is made from bamboo and is used in marriage rituals. Its shape consists of a square pattern resembling a diamond shape [6]. In *Walasuji*, the concept of *Sulapa Eppa'na* is embedded, which reflects the beliefs of the Bugis-Makassar ethnic group. This concept represents the order of the universe, encompassing four main elements: a) fire, b) water, c) wind, and d) earth [4] [9].

*Walasuji - Sulapa Eppa'na* is a value derived from “*Aksara Lontara*” [6] [7] [8], based on the belief of the Bugis-Makassar ethnic group that the cosmos itself is *Sulapa Eppa'na*. This idea is placed horizontally with the middle world [9] [6]. The belief holds that humanity is a perfection that encompasses the four cardinal directions: east, west, north, and south [6].

The literature of the Bugis-Makassar ethnic group, written in Lontara script, began in the 16th century [35], mainly by the people of South Sulawesi. Lontara manuscripts and Bugis-Makassar literary works are closely related to life's problems, expressed through “*panngaderreng*” (a

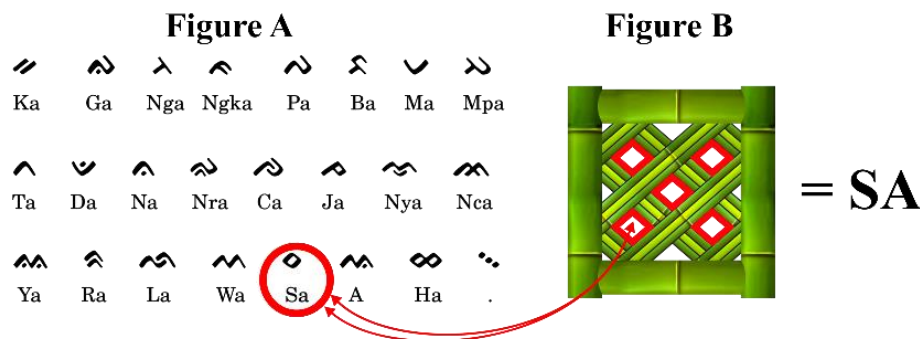
traditional Bugis-Makassar cultural form) [9] [35]. There is a belief within the Bugis-Makassar ethnic group that the values of *Sulapa Eppa'na*, originating from "*Aksara Lontara*," expect members of the Bugis-Makassar group to possess qualities such as: a) *warani* (bravery), b) *macca* (wisdom), c) *sugi* (wealth), and d) *panrita* (wisdom) [6] [9] [35].



**Figure 3: The concept of Sulapa Eppa'na in Walasuji architecture, a). Walasuji b). Sulapa Eppa'na, dan c) Value "AD"**

Source: From Various Sources That Have Been Reinterpreted, [6] [9] [32]

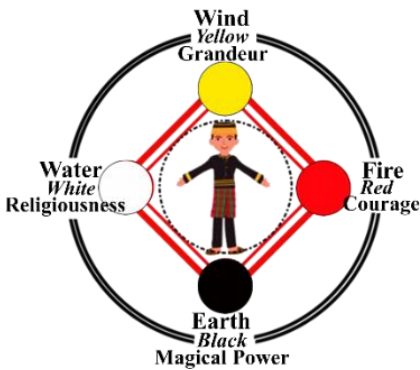
The new *Aksara Lontara* has its roots in the beliefs and mythological views of the Bugis-Makassar ethnic group, which sees the universe as *Sulapa Eppa'na*. The entire cosmos is regarded as a unified whole, symbolised by the "S." = "SA." representing ESW = "SEUA." (singular or one) [6] [9].



**Figure 4: a) Aksara Lontara, b) Sulapa Eppa'na**

Source: From Various Sources That Have Been Developed Again, [6] [9]

The symbol "S." represents the microcosm or *Sulapa Eppa'na* (the human body), where the peak signifies the head, the left and right sides represent the arms, and the bottom represents the feet. This symbol also indicates that at the head, there is "SW." which is interpreted as the mouth or the place where sound emerges. According to their belief, everything is expressed through the mouth in the form of "SD" or sound, which is then structured to carry a specific meaning, known as "AD." = ada (word, speech, or command). Based on the idea of "AD." the entire order of the cosmos (sarwa alam) is structured through words or logos, as shown in Figure 3 [6] [9].



**Figure 5: The meaning of the letters contained in Sulapa Eppa'na**  
Source: From Various Sources That Have Been Developed Again, [6] [9]

**“Hurupu.”** or the *Sulapa Eppa'na* script, represents the elements of life within the universe, namely God, humans, the sky, the earth, and everything within it. The symbol “S.” reflects the four fundamental human qualities symbolised by the elements: a) wind, b) water, c) fire, and d) earth, each of which is associated with four distinct colours: a) yellow, b) white, c) red, and d) black.

**Table 3: The meaning of the elements in Sulapa Eppa'na**

Elements of <i>Sulapa Eppa'na</i>	Color	Meaning of Symbols
Wind	Yellow	Grandeur
Fire	Red	Courage
Water	White	Religiousness
Land	Black	Magical Strength

Source: From Various Sources, [6] [9] [37]

These colours not only represent specific traits but also carry important symbolic meanings. In Bugis-Makassar ethnic culture, the use of these colours is evident in traditional ceremonies, such as the use of white and yellow royal umbrellas, which symbolise the heavenly kingdom as the origin of 'Batara Guru,' who descended to earth and became the ancestor of humankind [37].

In the case introduced in this research, there is a noticeable phenomenon of degradation in the application of *Walasuji - Sulapa Eppa'na* symbols during the wedding ceremonies of the Bugis-Makassar-Kaili ethnic descendant community, *“To Kaili.”* in the Palu Valley. Based on observations and interviews, this condition is caused by several factors, namely: a) globalisation, b) interest/attraction, c) education/understanding, and d) regeneration.

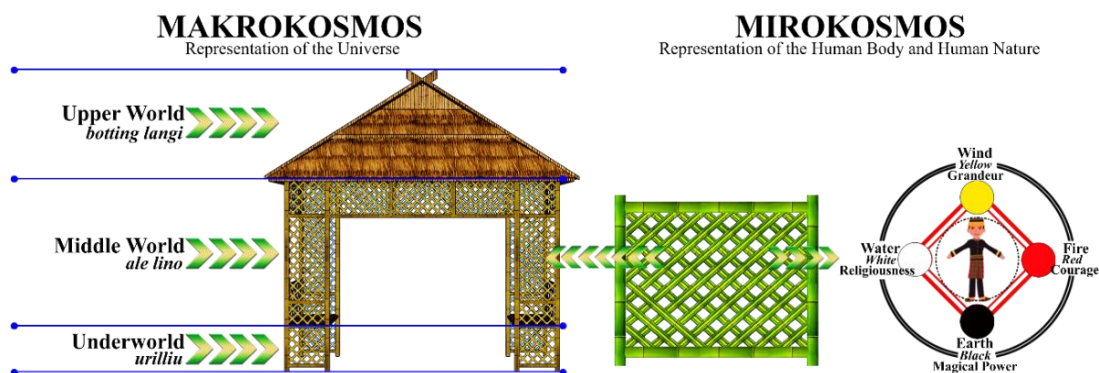
**Tabel 4: Indications of the Degradation in the Use of Walasuji - Sulapa Eppa'na Among the Descendants of Bugis-Makassar-Kaili Ethnic Groups in the Palu Valley**

No.	Indication	Description
1.	Globalization and Modernization	The influence of external cultures entering through media, technology, and global interactions can shape the preferences and choices of the younger generation, who may opt to follow global trends rather than preserve local traditions. As a result, traditional cultural symbols and practices risk being eroded or overlooked, as they are increasingly

		exposed to modern or global cultures perceived as more relevant to contemporary times.
2.	Interest	In this context, it relates to the level of interest or attraction of the younger generation towards the preservation and application of the <i>Walasuji - Sulapa Eppa'na</i> symbols in wedding ceremonies. Interest refers to the extent to which individuals or groups feel attracted to and have the desire to learn, preserve, and apply traditional cultural values in their lives
3.	Education	In this context, it relates to the extent to which the Bugis-Makassar-Kaili ethnic descendant community, particularly the younger generation, understands the meaning and values contained in the <i>Sulapa Eppa'na</i> symbols during wedding ceremonies. If the understanding of these cultural symbols is shallow, their application and preservation could be at risk. A lack of understanding of the values embedded in <i>Sulapa Eppa'na</i> may lead the younger generation to view these symbols as irrelevant to their current lives. On the other hand, a strong understanding will increase awareness and pride in local culture, encouraging the community to preserve and apply these symbols in wedding ceremonies and everyday life.
4.	Regeneration	In this context, it pertains to the process of passing on cultural values and traditional symbols to the next generation. Regeneration refers to the transition or continuation of generations within a community. In this case, regeneration can influence how the younger generation understands and applies the <i>Walasuji - Sulapa Eppa'na</i> symbols during wedding ceremonies.

Sumber: Author's Analysis, 2024

In the context of the microcosm, humans constantly strive to interact harmoniously with nature in order to achieve a better life. The ancestors of the Bugis-Makassar people integrated these principles into the form of *Walasuji - Sulapa Eppa'na*, creating a strong connection between God, humans, the sky, the earth, and all its contents within a unified whole, referred to as *Sulapa Eppa'na* (the relationship of the middle world), which encompasses fire, wind, water, and earth. As stated by Mattulada in the book *Latoa* [6], there is a wise saying: “Prioritise reason in action, even when it contradicts desires, because truth is only achieved when reason controls the desires.”



**Figure 6: *Sulapa Eppa'na* in the Context of the Macrocosm and Microcosm**

Source: From Various Sources Re-developed, [6] [9]

The imbalance among these four elements is believed to trigger disaster for the universe [38]. Therefore, the use of natural resources must be carried out with great caution and wisdom,

maintaining balance and harmony based on rationality, rather than merely fulfilling personal interests or impulsive desires [6]. Furthermore, humans must uphold ethics in their interactions with nature, prioritising the norms that serve as the foundation of human behaviour in preserving environmental sustainability [39].

The cultural values of *Sulapa Eppa'na*, rich in religious values, wisdom, insight, and goodness, form the core of the *Walasuji Sulapa Eppa'na* concept. These values can serve as a concept and strategic guide for architects in designing sustainable cities. The implementation of these values not only supports development in harmony with the environment but also enhances the city's competitiveness and strengthens social inclusion within the community [22] [40].

Furthermore, the values embedded in *Walasuji - Sulapa Eppa'na* can open opportunities to support the growth of the creative economy for the community. These values also act as a social filter to shape the behaviour patterns of the public, particularly the younger generation, in facing the challenges of rapid modernisation alongside technological advancements [11] [41]. The correlation between the macrocosm and microcosm in *Walasuji - Sulapa Eppa'na* buildings suggests how humans can create a harmonious relationship with their environment to avoid a series of natural events, such as seismic activity, flooding, and Leysus winds [35], by understanding the fundamental essence of *Sulapa Eppa'na*.

Through direct interviews, this hope was expressed by panrita/sanro bola, individuals who are considered to have a deep understanding of the *Sulapa Eppa'na* concept, through a meditative approach that connects the universe with the Creator. The results of this reflection are then applied to the buildings in question. The advice from panrita/sanro bola is generally abstract and not physically visible, yet it reflects the values of *Sulapa Eppa'na* [42]. These values, within the Bugis-Makassar ethnic community, can serve as a guide or reference in various fields, such as leadership, social culture, community, housing, and settlements [35].

### **Education for The Preservation of Walasuji - Sulapa Eppa'na Culture**

The sustainability of the *Walasuji - Sulapa Eppa'na* cultural tradition in Palu City is influenced by four main factors: 1) globalization, 2) interest, 3) education, and 4) regeneration. As an initial step, the primary focus is recommended to be on education and regeneration. Education aims to enhance understanding of the importance of preserving the *Sulapa Eppa'na* cultural values in order to protect nature and the environment. The relationship between education and multiculturalism provides a solution to the reality of cultural diversity. This effort is carried out through the holistic development of human capacity, upholding pluralism as a consequence of cultural, ethnic, tribal, and religious differences [43].

Regeneration focuses on actively involving the community through skill training as craftsmen of *Walasuji - Sulapa Eppa'na* buildings. This process not only supports the preservation of culture but also serves as a driver of the local economy before the implementation of other development strategies.

A strong commitment is needed to educate, promote cultural diversity, protect cultural heritage, and support the contribution of the creative cultural industry in creating jobs and fostering economic growth [44].

### Formation of Spatial Identity

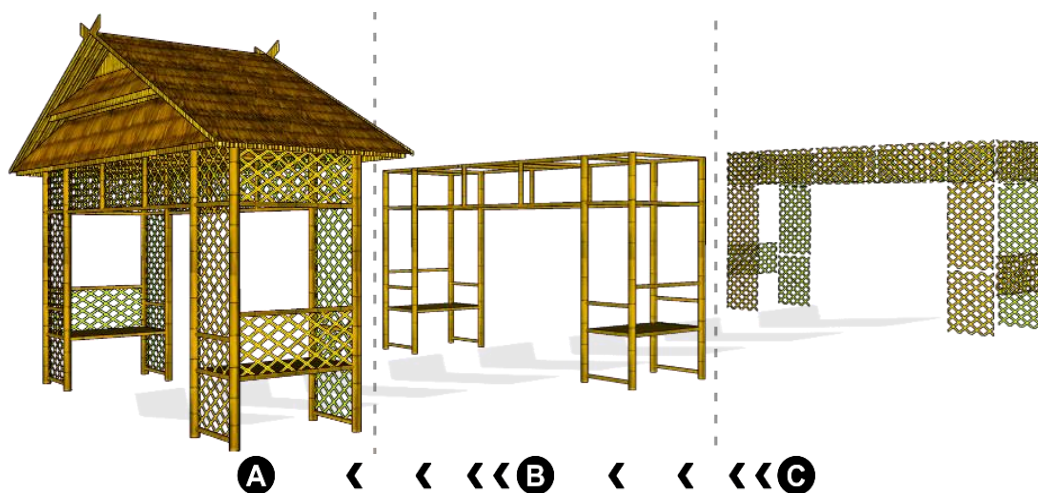
The formation of spatial identity is an important concept in spatial planning and architecture, which can be synergised with cultural values, functionality, aesthetics, and the perception of the environment by the community. In this context, *Sulapa Eppa'na* becomes an ornament or decorative element that not only shapes the identity of a building but can also serve as a foundation for acculturation in sustainable city planning on a macro scale.



Acculturation is a social interaction that occurs when a community with a particular culture interacts with foreign cultural elements, leading to the gradual acceptance and adaptation of these elements into the local culture without erasing the original cultural identity. In the process of acculturation, there are four attitudes towards it: a) synergy, b) adaptation, c) adoption, and d) marginalisation [45].

Architecture can be defined as a blend of art, building science, aesthetics, and construction technology [21]. One of the components that impact the beauty of a building is the decorative element, whose use is closely related to aesthetic elements that not only beautify but also reflect the character of a building [46].

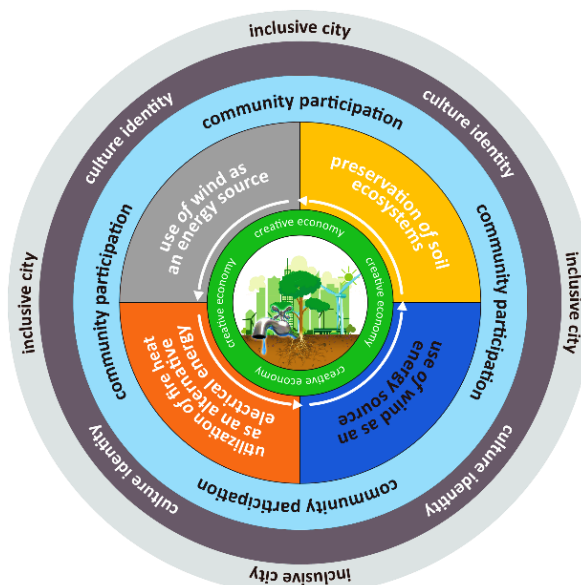
Ornaments and decorative elements not only present cultural and historical aesthetics but can also be formed through the surfaces of roofs, walls, or ceilings. Ornaments and decorations have symbolic meanings and function in the formation of identity [21].



Decorative building elements in the form of ornaments can be divided into two categories: structural and complementary. Structural ornaments are components that are inseparable from the building's structure, while complementary ornaments can exist separately without diminishing the overall meaning of the building [47]. In this context, *Sulapa Eppa'na* is a structural ornament that is integrated with the *Walasuji* building.

### Community-Based Sustainable Development

One of the cultural works of the Bugis-Makassar ethnic community in Palu is the *Walasuji - Sulapa Eppa'na* building. This cultural art form has endured amidst globalization and modernization, although its usage has declined in terms of interest, function, form, and materials. However, there are still small groups within the Bugis-Makassar-Kaili "To Kaili" community in Palu who continue to apply *Walasuji - Sulapa Eppa'na*. This tradition not only functions as a symbol of the cosmography of ancestral heritage but also represents the deep relationship between the macrocosm and microcosm. The values embedded within it include spirituality, perfection, intelligence, mutual cooperation, and responsibility for environmental preservation. Thus, this concept holds great potential to serve as a foundation for regional development transformation.



**Figure 10: The Concept of Revitalising *Sulapa Eppa'na* in the Process of Sustainable Urban Development**

Source: Author's Analysis, 2024

Development, as a sustainable process, requires tangible results that can quickly serve as examples and guides for the community. These results are expected to provide clear direction on the ongoing development and increase public participation in supporting the process [48]. In the context of sustainable urban planning, the community must be at the core of every process. A participatory approach becomes a strategic step to democratize development, emphasizing the importance of the active involvement of all community members in determining and developing their physical and social spaces.

The popularity of this concept at the international level has been increasing, in line with the growing awareness of the importance of community involvement in determining the development agenda for their communities. This shift is a response to the weaknesses of centralized planning approaches, which often result in urban environments that are socially disconnected [49]. By involving communities actively in the decision-making process and the implementation of development programmes, it is hoped that local wisdom values can be integrated into the design of sustainable cities, supporting the physical sustainability of urban areas, while preserving the cultural values that shape local identity.

## CONCLUSION

The concept of regional culture reflects a unique identity that is born, develops, and takes root within a region defined by clear geographical boundaries and supported by the existence of a specific community. One of the cultural identities that has persisted to this day among the Bugis-Makassar-Kaili ethnic communities in the Palu Valley is the values of *Sulapa Eppa'na*, as embodied in the traditional *Walasuji* structures.

The values of *Sulapa Eppa'na*, which represent the four primary elements—wind, water, fire, and earth—are not merely symbolic of the microcosmic relationship between humans and nature. Instead, they serve as fundamental principles reflecting wisdom, insight, and noble values deeply ingrained in the community's way of life.

The principles contained within the *Sulapa Eppa'na* culture have provided a model for the importance of maintaining ethical interactions between humans and nature. This is realised through the application of norms that form the basis of behaviour aimed at preserving the environment harmoniously and sustainably. An imbalance among these four elements is believed to harm the environment, potentially causing disasters to the universe. Therefore, the utilisation of natural resources must be carried out with great caution and wisdom, ensuring the balance and harmony between nature and humanity. Resource management should be guided by rationality as the primary principle, rather than driven solely by personal interests or unbridled desires.

Integrating the symbolic values of *Sulapa Eppa'na* into urban planning and architecture is a strategic step to accommodate local wisdom, enabling the creation of cities with a strong and sustainable cultural identity. The concept of *Sulapa Eppa'na*, which incorporates natural elements such as wind, water, earth, and fire, can be actualised in environmentally friendly resource management. This includes flood mitigation and the utilisation of renewable energy, contributing to soil ecosystem preservation and preventing environmental degradation.

This aligns with the principles of sustainable development, which integrate cultural elements to achieve a balance between humans and nature, involving active participation from the community.

## Reference

- [1] Pemerintah Kota Palu, "Profil Sejarah Kota Palu." Accessed: Nov. 30, 2024. [Online]. Available: <https://palukota.go.id/profil>

- [2] D. Septiwiharti, "Budaya Sintuvu Masyarakat Kaili di Sulawesi Tengah [The Sintuvu Culture of The Kaili People in Central Sulawesi]," *Naditira Widya*, vol. 14, no. 1, pp. 47–64, 2020.
- [3] S. Mamar, F. Malappalahere, and P. Wayong, *Sejarah Sosial Daerah Sulawesi Tengah (Wajah Kota Donggala dan Palu)*. Direktorat Sejarah dan Nilai Tradisional, 1984.
- [4] H. A. Mattulada, "Sejarah Kebudayaan To Kaili," 1983, *Palu: Tadulako University Press*.
- [5] S. Kulle, *Aksara Lontara Makassar*, vol. 2. Pustaka Refleksi, 2008.
- [6] Mattulada, *Latoa: Suatu Lukisan Analitis Terhadap Antropologi Politik Orang Bugis*. 1985.
- [7] M. A. Z. Abidin, "Falsafah Hidup Sulapa Appaka Orang-orang Bugis-Makassar (Pandangan Hidup Segi Empat)," *Bingkisan Budaya Sulawesi Selatan Nomor*, vol. 12, 1969.
- [8] A. Sudikno, P. Artiningrum, and K. Abdullah Arif, "Adaptation Patterns of Bugis Diaspora Village Architecture: Sulapa Eppa' Philosophy and Function-Form-Meaning-Context Theory," 2019. [Online]. Available: <https://www.researchgate.net/publication/338036022>
- [9] M. Asar Said Mahbud, "Hurupu 'Sulapa Eppa', Etika Lingkungan dan Kearifan Lokal," Makassar, May 2008.
- [10] S. Wati and J. Jasman, "Menelisik Falsafah Sulapa Eppa Dalam Pengelolaan Dana Desa (Studi Pada Kantor Desa Mappedeceng Kabupaten Luwu Utara)," 2022.
- [11] A. Suradi, "Pendidikan Berbasis Multikultural Dalam Pelestarian Kebudayaan Lokal Nusantara di Era Globalisasi," vol. 5, no. 1, 2018.
- [12] "Modal Sosial Dalam Revitalisasi Kearifan Lokal (studi Kasus Desa Wisata Kandri Kecamatan Gunung Pati Kota Semarang)".
- [13] B. Umeogu, "The aftermath of globalization on African identity," *Open J Philos*, vol. 3, no. 1, pp. 174–177, 2013.
- [14] M. D. A. D. NSR Rais, "Kemajuan Teknologi Informasi Berdampak Pada Generalisasi Unsur Sosial Budaya Bagi Generasi Milenial," 2018.
- [15] H. M. Nahak and M. Hildigardis, "Efforts to preserve Indonesian culture in the era of globalization," *Jurnal Sosiologi Nusantara*, vol. 5, no. 1, pp. 65–76, 2019.
- [16] N. G. Martiningsih, A. G. Eka, G. B. B. Putra, I. Wijaya, and I. Jayantini, "Reflection: The Value of Local Wisdom as a Competitive Social Capital in Sustainable Development (Case Study of Socio-Cultural Life in Pakerisan Watershed)," *Educational Administration: Theory and Practice*, vol. 30, no. 6, pp. 2211–2218, 2024.
- [17] K Kasman, "Membangkitkan Kearifan Lokal Peran Komunitas Dalam Pengembangan Daerah," 2024.
- [18] B. Wardiman, E. Fitriyani, S. Herlyani, J. R. Ashar, and N. J. Panga, *Pertanian Keberlanjutan*. Tohar Media, 2024.
- [19] Z. Djafar, N. Putra, and R. A. Koestoer, "Kajian Eksperimental Pengembangan Generator Termoelektrik Sebagai Sumber Listrik," *SNTTM ke-9, Palembang*, 2010.
- [20] H. Jouhara *et al.*, "Thermoelectric generator (TEG) technologies and applications," Feb. 01, 2021, *Elsevier B.V.* doi: 10.1016/j.ijft.2021.100063.

- 
- [21] S. Antariksa, "Kearifan Lokal Dalam Arsitektur Perkotaan dan Lingkungan Binaan," *Wikantiyoso, Respati*.(2009). "Prosiding Kearifan Lokal dalam Perencanaan dan Perancangan Kota untuk mewujudkan Arsitektur Kota yang berkelanjutan". Penerbit Grup Konservasi Arsitektur dan Kota, Universitas Merdeka. Malang. ISBN, p. 979, 2009.
- [22] Antariksa, *Arsitektur Dalam Dinamika Ruang, Bentuk dan Budaya*. 2018.
- [23] N. D. B. Setyaningrum, "Local Culture in the Global Era," *Artistic Expression: Journal of Science and Art*, vol. 20, no. 2, pp. 102–112, 2018.
- [24] Akramullah, M. I. P. Koesoemadinata, and A. S. M. Atamtajani, "Social Values Reflecting Character Education in the Process of Making the Walasuji Miniature Gate," 2024, pp. 373–382. doi: 10.2991/978-2-38476-118-0\_42.
- [25] A. Wahyudi and E. Kusdarini, "Pengembangan Ekonomi Lokal Melalui Industrialisasi Tenunan Khas Bima 'Tembe Nggoli'di Provinsi NTB," *Jurnal Antropologi: Isu-Isu Sosial Budaya*, vol. 22, no. 2, pp. 226–235, 2020.
- [26] I. Alam, H. Syahbuddin, and M. S. Qodri, "Nilai-nilai Pendidikan Karakter Dalam Patu Mbojo (Pantun Bima)," *Jurnal Ilmiah Profesi Pendidikan*, vol. 7, no. 4, pp. 2217–2221, 2022.
- [27] A. Gde Bagus dan Hedwi Prihatmoko and A. Agung Gde Bagus dan Hedwi Prihatmoko Balai Arkeologi Bali Jl Raya Sesetan No, "Kearifan Lokal Dalam Pembangunan Kompleks Candi Gunung Kawi. Local Wisdom in The Construction of Gunung Kawi Temple," 2016.
- [28] M. A. Sardjono and I. Samsuodin, "Traditional Knowledge and Practice of Biodiversity Conservation among Benuaq Dayak Community in East-Kalimantan," 2001) *People Managing Forests. The Links between Human Well Being and Sustainability*. Washinton, DC: RFF Press Book, 2001.
- [29] F. A. Dewi and F. Fatmariza, "Reaktualisasi Nilai-Nilai Kearifan Lokal Dalam Pembangunan Nagari," *Journal of Civic Education*, vol. 3, no. 3, pp. 243–249, 2020.
- [30] L. Hermanto, A. Rosadi, M. Program, S. Ilmu, K. Stisip, and M. Bima, "Strategi Komunikasi Dinas Pariwisata Dalam Pelestarian dan Pengembangan Kebudayaan Lokal Di Kota Bima," *Jurnal Komunikasi dan Kebudayaan*, vol. 6, no. 2, 2019.
- [31] J. Dessein, "Culture in, for and as Sustainable Development: Conclusions from the COST Action IS1007 Investigating Cultural Sustainability," *Univerity of Jyvaskyla*, 2015.
- [32] U. The Hangzhou Declaration, "The Hangzhou Declaration: Placing Culture at the Heart of Sustainable Development Policies," 2013, *UNESCO Hangzhou, China*.
- [33] Florence Declaration, "The Florence Declaration on Heritage and Landscape as Human Values (2014)," 2014.
- [34] S. R. Wu, P. Fan, and J. Chen, "Incorporating culture into sustainable development: A cultural sustainability index framework for green buildings," *Sustainable Development*, vol. 24, no. 1, pp. 64–76, 2016.
- [35] Syarif, A. Yudono, A. Harisah, and M. Mochsen Sir, "Sulapa Eppa As The Basic or Fundamental Philosophy of Traditional Architecture Buginese," *SHS Web of Conferences*, vol. 41, p. 04005, 2018, doi: 10.1051/shsconf/20184104005.
- [36] M. Q. Abdullah, "Riset Budaya: Mempertahankan Tradisi Di Tengah Krisis Moralitas," 2020.
- [37] A. M. Saing, "Arsitektur Tradisional Rumah Adat Bugis Makassar," *Indira Art. Makassar*, 2010.
-

- [38] F. Triadi and P. J. Ismoyo, "Sulapa Eppa: Bissu, Kosmologi Bugis, dan Politik Ekologi Queer Sulapa Eppa: Bissu, Bugis Cosmology, and Queer Political Ecology," *Jurnal Perempuan*, vol. 27, no. 3, pp. 215–225, 2022.
- [39] S. Keraf, "Etika Lingkungan (Jakarta: Kompas)," 2005.
- [40] W. B. UNESCO, "Cities, Culture, Creativity: Leveraging Culture and Creativity for Sustainable Urban Development and Inclusive Growth," Jul. 2021. doi: 10.58337/IIRA3223.
- [41] Sartini, "Menggalai kearifan lokal Nusantara Sebuah kajian filsafati," 2004.
- [42] A. J. Hatta and I. Sudrajat, "The Role of Sanro Bola in Construction of Bugis Traditional House in Soppeng District," *ARTEKS : Jurnal Teknik Arsitektur*, vol. 5, no. 1, pp. 57–66, Mar. 2020, doi: 10.30822/arteks.v5i1.119.
- [43] Q. V. P. M. Maslikhah and P. Multikultural, "Rekonstruksi Sistem Pendidikan Berbasis Kebangsaan," *Surabaya: JP Books*, 2007.
- [44] V. Montalto, T. Moura, S. JC-Langedijk, and M. Sisana, "The cultural and creative cities monitor: 2017 Edition Publications Office of the European Union, Luxembourg," 2017.
- [45] P. Salura, *Sundanese Architecture*. Rosda, 2015.
- [46] C. Amiuza, "Tipologi Rumah Tinggal Administratur PG Kebon Agung di Kabupaten Malang," *Jurnal Ruas. IV (1)*, pp. 1–22, 2006.
- [47] A. Kusmiati, *Dimensi Estetika Pada Karya Arsitektur dan Disain*. PT Penerbit Djambatan, 2004.
- [48] Y. P. Hermawan *et al.*, "Quickwins dan strategi Indonesia di G20: mewujudkan kemandirian ekonomi dalam konteks ketidakpastian global," 2015, *Fakultas Ilmu Sosial dan Ilmu Politik Universitas Katolik Parahyangan*.
- [49] Ankitha Gattupalli, "Participatory Planning: Shaping Cities Through Community Engagement," <https://www.archdaily.com/1009635/participatory-planning-shaping-cities-through-community-engagement>.