

# Application of Buginese-Makassarese culture in Makassar City, Indonesia

## *A Reference in the Coastal City Planning*

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**Abstract:** The purpose of this study is to identify the Buginese-Makassarese culture which is increasingly present in the settlements along the coastal area of Makassar. This study is meant to sharpen the standards and references of the coastal city's planning which will become more effective if the stakeholder paradigm of the local knowledge about appropriate modern science and technology development dynamics, technology and art, is built as the basis of thinking, decision making, and attitude toward planning and utilization in a coastal city. This study is useful for developing a model of coastal city planning with integrity based on the construction of culture and development of science, technology and art. This study explores local knowledge of the Buginese-Makassarese culture which emerged and developed in the past, also the social-cultural condition which is growing in the residence area along the coast of Makassar city. The method which is used is a triangle analysis, a method which analyzes the literature, in-depth interviews with community leaders, and observations of the socio-cultural and physical morphology in the research area. From this study, it was found that the Buginese-Makassarese community have local knowledge based on culture, cosmology, and philosophy which have been understood since long ago. Implementations of the cultural values that still exist in Makassar city have been able to influence the rules of the region which is more macro. Some of the culture values of the Buginese-Makassarese community are identified and applied in Makassar city's form, especially: the road pattern, the building shape, and the building orientation.

## 1. INTRODUCTION

### 1.1 Background

The modern paradigm and behavior of urban societies tend to be oriented toward the genetic materialistic values, compared to the social, cultural, religious and non-physical aspects of others. These behaviors are a symptom of the development of city urban living like that expressed in Durkheim's solidarity theory ([Hillier and Hanson, 1984](#)), that the organic community today (modern society) is more pluralistic and tends to be more free; collective consciousness slowly begins to disappear, and there tend to be more specialists. The character of pluralistic society tends to appreciate freedom, talents, accomplishments, and individual careers. The changing of these societies has resulted in an overhaul of the norm and individual



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characteristics of societies have increased, which at the last result in the collapse of the social norms that manage behavior.

This phenomenon is not separated from the process of transformation and modernization generally seen in cities in the 20th century, including in Asia. Several years later it will be the restructuring of a society's economy that is especially influential on urban growth, particularly changing the effect on two important events: namely rapid urban growth and socio-spatial changes in urban environments ([Watson, 2009](#)). Nowadays, planners and city managers have been faced with a new spatial form and process as the impact of modernization and globalization factors are likely to be beyond of the control of the government and planners. However, Vanessa Watson reiterated that even though the negative effects of modernization and globalization on urban space cannot be avoided completely; it can be tried if the planning and state policy are relatively strong at the national and local levels (summarized from [Watson, 2009](#)). According to [Tweed and Sutherland \(2007\)](#) the increase of modernization and globalization due to foreign culture will affect the growing of society needs. Further it is said that motivation or behavior when fulfilling the needs of the community is very different in each particular type of culture. This is understandable, because the interpretation of the specific values is different for every culture. Related to this, [Tweed and Sutherland \(2007\)](#) explored the complexities between society's needs and the ideological beliefs which are a part of traditional culture, and concluded that the society's needs are full of variety, depending on their cultural background.

As a result of this phenomenon, a competitive urban habitat, including the acquisition and ownership of material property, has unconsciously been established. City planning is more oriented to the fulfillment of physiological needs that are not being offset by the spirit and social identity of local culture, so that the physical appearance of buildings and urban landscape are usually bland. Visually, the identity of the cities in Indonesia tends to be undermined by the process of the adoption of diverse urban culture, especially the culture from the cities of developed countries in America and Europe (Adopted from [Santoso, 2008](#)). The financial aspect became the important determining factor of development of the cities in many countries, including Indonesia. Commercial buildings such as stores, home stores, home offices, mini-markets, shopping malls, offices, industrial buildings, warehousings and hospitals appear in new urban areas, as well as the renovation, displacement or diverted function of buildings and open space in old town areas. The buildings and the unique environmental heritage of the past slowly, innovatively and revolutionarily, drastically change the form of modern buildings and the environment in ways that are initially unfamiliar with local identity. In terms of the modern invasive influence of openness and globalization toward the decline of the traditional architecture in Indonesia, Eko Budihardjo has termed it cultural colonization ([Budihardjo, 2005](#)). The phenomenon also happened in Kuwait, [Mahgoub \(2004\)](#) revealed that the discrepancies that happen in the urban environment in Kuwait is the product of the rapid process of globalization that has swept the country since the mid-20th century. A dichotomy between the forces of globalization and culture localization has formed the current city environment through the dichotomy between modern-traditional, Islam-West, and local-global. Related to this case, Eddy Siahaan responded that efforts to realize the city should refer to the current demands or sensitivity to environmental and societal needs.

Many studies on cultural values and local wisdom have been done, but just few of them are linked with the principles of city planning, more specifically, in the planning of coastal cities. As the focus of this study, it can be stated that the Buginese-Makassarese community has a good knowledge of local culture in the form of cultural values and principles of life have been understood throughout the generations. The cultural values then manifested on the built environment, wherever located, including of the settlements and coastal city of Makassar. As well as several other cities, Makassar city undergoes indirect physical change due to economic influences.

The planning of a coastal cities is oriented and friendly toward marine water, rivers, and groundwater protection and utilization, due to the growth of science and technology, especially in building, transportation, urban infrastructure, purchasing power, and the strengthening and freedom of the society in actualization of their life. Hence the development of the city is more dominated by economic rather than ecological aspects. Makassar coastal city's land was mostly formed of alluvial soil which is especially true of sediments from the Je'neberang River and Tallo River, so the conditions of the water surface experience accession to the land, becoming prone to flooding, erosion, and prone to contaminated waters ([Yudono, 2006](#)).

Based on the above issues, the implication of culture in planning and designing a Buginese-Makassarese city will be focussed on the following research problem: Which Buginese-Makassarese culture deserves to be used for guidance in coastal city planning?

## **1.2 Research Objectives**

This research will examine and explore public perceptions of Makassar in relation to cultural aspects of the planning and design of Makassar city. In this case, the relationship between culture and physical resettlements will be assessed. This research intends to explore the local knowledge of Buginese-Makassarese culture that grew in the past, especially in the center of settlements along the coastal areas of Makassar, and the socio-cultural conditions that developed at this time.

## **1.3 Scope of Research**

The substance of this research is an effort to rethink about the importance of culture and knowledge which will establish the identity and spirit of the coastal city planning, that which is productive, safe, convenient, and sustainable. Substantially, this research generally examines the national strategic problem of problem solving within the local scope as follows: (i) exploring and preserving of cultural values so that they are not eroded by foreign, and (ii) developing coastal city planning rules that are anticipative and adaptive toward the change of the physical and socio-cultural city. The scope of this research includes the research area along the coastal areas of Makassar City, especially in the Districts of Mariso, Ujung Pandang, Wajo, Ujung Tanah, and Tallo, which includes 24 sub-district areas.

## 1.4 Previous Studies

To support this research, as well as to achieve focus and originality in order to fill a gap of knowledge, the following will disclose several previous studies that are relevant. In a study entitled “The Role of Socio-cultural Values in the Formation of the City” ([Arifuddin, 2012](#)), it was revealed that the concept of *Siri' na Pesse / Siri' na pacce* remains a way of life in Buginese-Makassarese society in the modern era which is reflected in the form of the built environment. This qualitative study linked culture and the built environment, particularly the role of Buginese-Makassarese in city planning. The research of coastal cities based on local wisdom has not been widely studied, particularly in relation to the Buginese-Makassarese culture.

Next, in a study entitled “Local Wisdom *Alu' Todolo* to Confront Environmental Degradation of Settlements and Urban in Tana Toraja” ([Yudono, 2012](#)), it was revealed that the trust *Alu' Todolo* understood that there is a life world and a death world in Torajanese society. *Alu' Todolo* provides guidelines for the public to realize the rules of settlement that are livable, meet basic human needs, and maintain harmony between the natural and man-made resources. As a social being, the societies organize their traditional settlements with the row of houses from the East to West facing to North and facing with the *Alang* that are rice barns which also serve as a gazebo. The housing and barns layout produce common plazas which have multiple functions such as for drying rice, coffee, cocoa, being a children's playground, holding *Rambu Tuka'* ceremonies to celebrate a success or happiness, and *Rambu Solo'* grief ceremonies which include a series of activities such as a funeral with prayers, feasts, buffalo race, and animal sacrifice.

Previous studies mentioned above have contributed ideas to the author, in addition to reinforcing the difference between previous research and research to be initiated.

## 2. METHOD

The research method is a qualitative method which utilizes a combination of approaches incorporating sociology, culture, and urban morphology. In order to make this research clear, the social condition of this research is determined at the beginning and includes the Buginese-Makassarese community which are living along the coast of Makassar. In the methodologies context, theoretical architecture science has relationships with the dimensions of sociology, culture and climate effects. This approach has relevance to the urban morphology manifestation. Moreover this approach is relevant to the process of physical changes in the urban environment which is influenced by the presence of symbolic meanings of Buginese-Makassarese culture. According to [Rapoport \(2005\)](#), the study of culture from a qualitative approach is basically an attempt to understand the fact that its existence is represented by something (Culture). Related to that, this research is based on interviews, literature study, and observations. According to [Arifuddin \(2013a; 2013b\)](#), this approach will bear relevance to the pattern of settlement space, building form, building layout and street pattern with characteristics particular to the Buginese-Makassarese community. Informants and respondent in this study are people from the

Buginese-Makassarese community. Informant numbers of community leader categories are adapted to the needs of data completeness.

This study is an exploratory study of local knowledge and socio-cultural conditions that evolve in Makassar coastal cities. This study utilizes a triangle analysis technique, including an analysis of traffic literature, in-depth interviews with community leaders, and morphological observations of social, cultural, and physical aspects. The analysis technique is the process of exploring the meanings of cultural values, and then observing the relationships of those with the patterns of urban space. The relevant analytical techniques performed are city morphological analysis techniques that are identified by mapping analysis techniques and combined with field observation.

Furthermore, the relevant analytical techniques to analyze statistical data use inferential statistics, that analysis is done by analyzing the sample data using the technique of cross-tabulation between the independent and dependent variables, and the results will be interpreted ([Sugiyono, 2008](#)). Dependent variables which will be measured are some of the local knowledge findings in the formation of settlements or cities. The variables studied include:

1. Socio-cultural variables: a) education level, b) age of respondents, c) type of job, d) the understanding of cultural values, and behaviors that are considered taboos (pamali) with space settlements (cities)
2. Settlement form variables: a) layout of the building, b) building orientation, c) building form, d) plots form, and e) street pattern.

The data of each variable are processed with procedures: a) counting the frequency as variables which are investigated, b) distributing the frequencies using cross tabulations and then interpreting in accordance with the direction and the goals of analysis, and c) to see statistical relationships influencing the spread of data in cross-tabulation, using the Chi-Square test formula ([Sugiyono, 2008](#); [Moleo, 2008](#)).

### 3. RESULTS AND DISCUSSION

#### 3.1 Understanding of the Socio-Cultural Buginese-Makassarese values

The Buginese-Makassarese socio-cultural values which are understood come from a life view of society for generations and institutions. Those values are reflected in the nature and behavior of the Buginese, and are contained in artefacts, either directly or indirectly. The socio-cultural values are centered on the value of *Siri' na Pesse* ([Abdullah, 1985](#); [Abidin, 2003](#); [Hamid, 2003](#)). *Siri'* means self-esteem, which means that the Buginese always maintain dignity everywhere. *Siri'* can be examined further in the form of the principle of life and community lifestyle in the form of an effort to maintain behavior and appearance, as well as efforts to develop its potential. The implications of *siri'* in the behavior of the Buginese are the showing of characters who care for maturity and sound behavior, while on the other hand, it has characters who keep competing and looking for business opportunities as a form of the *were'* value, to keep having value in the eyes of others. The *were'* value essentially is a part of the *siri'* value. Furthermore, the *pesse* value means solidarity. They also understand the importance of being "*sipakatau*" and "*sipakalebbi*" in living together with their environment. In overseeing and supervising the implementation of *siri'*

and *pesse*, the Buginese have a set of norms was called "*Pangadereng*" ([Mattulada, 1975](#); [Ibrahim, 2003](#)).

Some Buginese-Makassarese cultures are still very understood by communities in the Makassar coastal city. However, the existence of these cultures in the understanding of the community, tends to be varied. From interviews, it showed that the values of *siwolompolong* and *sipatuo sipatokkong* (working together) have been very understood by people since childhood until old age, although there is a decreased understanding of the value amongst the elderly (aged in their 40s) caused by social phenomena which entered into urban society, like symptoms of lifestyle competition, including including of an individualist, free-living and materialistic nature. It shows that in the Buginese community the young understood and applied these cultural values. Later in their working age, each community began to rush in to take care of various activities related to self development and family development. However, at the nonproductive age, it seems the understanding of those values were likely to increase again in line with the increasing of their awareness about the values of life. Therefore, they widely understand or relearn these values.

Table 1. Understanding of the Buginese-Makassarese cultural values

Values	<i>Siri'na pesse</i>	<i>Sipakatau</i>	<i>Sipakalebbi</i>	<i>Sipakainge'</i>	<i>Sipatuo-sipatokkong</i>	<i>Sipammamemase</i>	<i>Siwolompolong</i>	<i>Siri na pace</i>	<i>Abbulosibatang</i>	<i>Sipammentenggang</i>
Know	211	323	286	307	253	289	175	325	255	258
%	61	94	83	89	73	84	51	94	26	75
Don't Know	134	22	59	38	92	56	170	20	90	87
%	39	6	17	11	27	16	49	6	74	25

Sources: Analysis (City Planning and Design Laboratory, Department of Architecture)

Table 2. Source of understanding of the Buginese-Makassarese values

Values	<i>Siri'na pesse</i>	<i>Sipakatau</i>	<i>Sipakalebbi</i>	<i>Sipakainge'</i>	<i>Sipatuo-sipatokkong</i>	<i>Sipammamemase</i>	<i>Siwolompolong</i>	<i>Siri na pace</i>	<i>Abbulosibatang</i>	<i>Sipammentenggang</i>
Formal Education	6	34	33	34	23	29	25	25	19	20
Non formal Education	208	232	257	276	235	266	165	306	247	249
No Answer	131	13	55	35	87	50	155	14	79	76
Total	345	279	345	345	345	345	345	345	345	345

Sources: Analysis (City Planning and Design Laboratory, Department of Architecture)

Furthermore, based on the results of a study of 345 respondents, the next level of applications can be determined from the Buginese-Makassarese values that are understood by respondents. The table below shows the application of the values that are understood in their lives especially the *Siri'na Pace* value (94%), *Sipakatau* (93%), and *Sipakainge* (89%). The detail can be seen in the following table.

Table 3. Application of Buginese-Makassarese values is understood

Values	<i>Siri na Pesse</i>	<i>Sipakatau</i>	<i>Sipaka lebbi</i>	<i>Sipaka inge</i>	<i>Sipatuo-sipatokong</i>	<i>Sipamma semase</i>	<i>Siwolom polong</i>	<i>Siri na Pacce</i>	<i>Abbulosibatang</i>	<i>Sipammen-tengang</i>
Apply the Value	211	321	286	306	247	288	174	325	255	258
Not Apply	43	7	24	7	38	21	46	8	17	14
Don't know	91	17	35	32	60	36	125	12	73	73

Sources: Analysis (City Planning and Design Laboratory, Depart of Architecture)

Based on the results of interviews that have been conducted in the Buginese-Makassarese about their perceptions of the ten cultural values that they understood, it can be seen that the public community still understand their cultural values. For details, the community perception may be based on the values that are understood as follows:

### 3.1.1 *Siri' na Pesse* value

Understanding of *siri' na pesse* value among the Buginese-Makassarese is still quite high, including 61.2% of all respondents, especially among people who had high school education, as much as 40.3%. This is a dominant value obtained through household education.

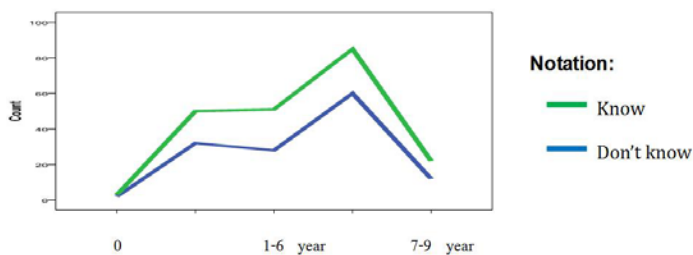


Figure 1. Understanding of *Siri' na Pesse* value based on education level.

### 3.1.2 *Sipakatau* value

Understanding of the *sipakatau* value among the Buginese-Makassarese is still quite high, including 93.6% of all respondents, mainly from those in junior high school education, as much as 23.2% and 41.8%. This also is a dominant value obtained through household education.

## 3.2 Buginese-Makassarese Culture, Local Knowledge in Makassar City Coastal Area

The *sulapa eppa'* philosophy which is understood by the Buginese-Makassarese, has a binary meaning that is vertical; [Mattulada \(1975\)](#) said that it consists of three parts such as head, body, and legs, as well as the horizontal meaning according to [Machmud \(1978\)](#) and [Arifuddin \(2012\)](#), which encompasses elements of water, fire, earth, and air on every corner. The horizontal meaning is viewed with the understanding about the formation of the road pattern, by linking the balance among the four elements of nature. While vertical meanings can be applied to the form of the traditional houses that have stages with three tiers. Street patterns form a rectangular lattice (grid form) in the villages or towns which are built by the Buginese-Makassarese and are especially visible in the coastal cities whose

topography is relatively flat, like in Makassar city. Some of the patterns found are built by the Buginese-Makassarese in Makassar city, facing into the four corners of the direction of the wind, which is assumed to be associated with building placement orientation, or direction of the shoreline.

The grid street pattern by Buginese-Makassarese community's understanding is based on the values of *pesse/pacce*, *sipakatau*, *sipammase-mase*, *sipatuo-sipatokkong*, and *abbulosibatang* that support living together in peace, coexistence, harmony, unity, and makes it easier to interact at anytime. Based on the results of interviews with the Buginese-Makassarese (345 respondents) along the Makassar coastal areas in general, it is found that cultural values understood by the dominant society leads to the grid street pattern and the pattern of spread. The detail can be seen in the following Figure 2.

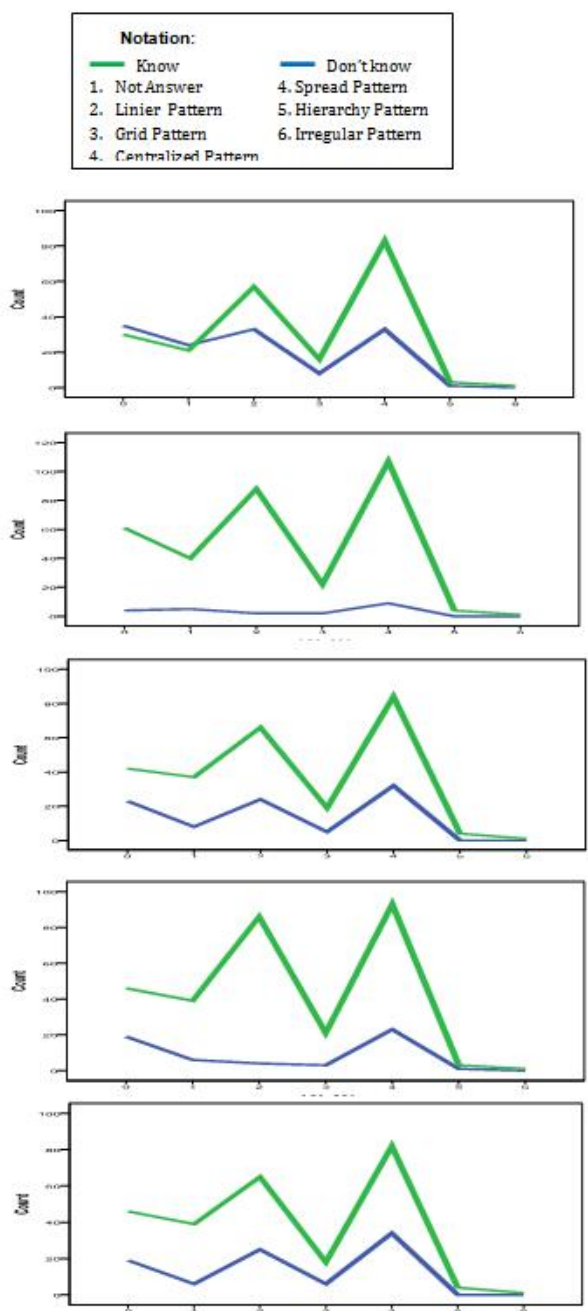


Figure 2. Relationship between cultural values of Buginese-Makassarese and street pattern.

In this case, the street pattern according to the views of the public is a grid that has access from multiple directions, so it can facilitate settlement access both internally and externally to other areas. The claim is shown in the form of the grid patterns that can create high accessibility from all directions. As an example, the grid pattern can be seen on the street pattern of Makassar city which is a relatively patterned grid as shown in *Figure 3*, below.

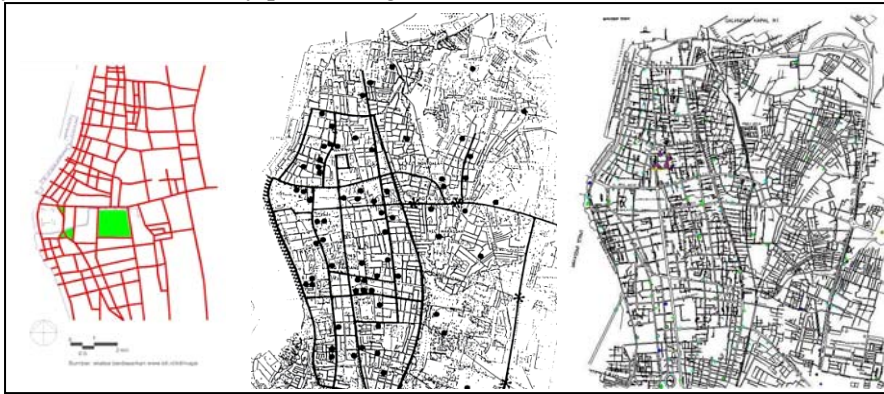


Figure 3. Makassar city street pattern in 1922, 1998, and 2008, patterned grid in accordance with Buginese-Makassarese values.

In the 20th century, Buginese's settlement had a city city, including Matowa's house (Lord), mosque and fields ([Arifuddin, 2012](#)). However, in the process of settlement, as it developed into the Makassar city, a field reformed as an activity center (public space) in the Buginese-Makassarese society, gradually being reduced or entirely lost. This is strongly associated with the socio-economics of societies that use space efficiently according to their needs. Open space took on the functions of business land, homes, and other more profit oriented uses. Commercial facilities which are developed by the Buginese-Makassarese society are strongly associated with the emergence of a variety of commercial life, which at the least impact on the space structure, especially in relation to the distribution and placement of buildings which have commercial functions.

Application of the *siri'* and *were* values that have been understood, were applied dominantly by the Bugis society in trading activities, seeing that there is a high level of character in trading business activities. Furthermore, the value of iconic buildings of the city nuanced Buginese-Makassarese culture in Makassar, such as the Governor's Office, City Council offices, Office of the Joint Department of Makassar (now recast), PELNI office, AIPI campus, some forms of residential buildings, as well as the villages of Buginese-Makassarese that keep reflecting the traditional architecture. Urban regulations have been created that are based on culture through the images found in the elements of the city. The detail can be seen in the following *Figure 4*, below.

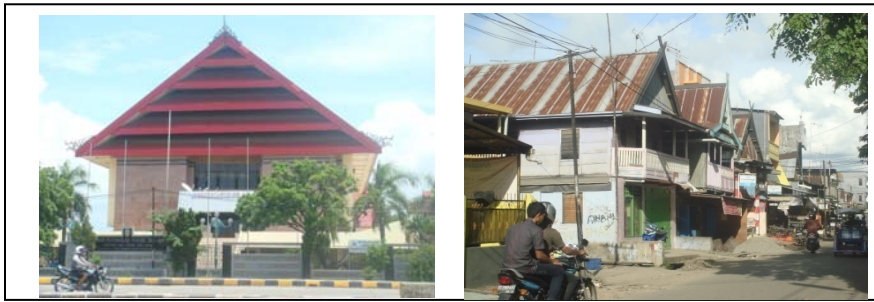


Figure 4. Office of the Parliament and faces of Traditional Houses and Urban Settlements in Makassar city.

Buginese-Makassarese society tend to keep the building values that show the city's cultural nuances, from the understanding of Buginese-Makassarese, made up from the values of *siri' na pesse/pacce*, *sipakatau*, *sipatuo-sipatokkong*, *abbulo-sibatang*, *sipammen-tengang*, *sipakainge*, *sipakalebbi*, which support to living together peacefully, have pride, respect, and make it easier to communicate with each other. Based on the results of interviews with the Buginese-Makassarese along Makassar coastal city, there is a general belief that the fulfillment of one of the traditional building form symbols, whether the stage form, *lego-lego/paladang* (entrance), or *timpa laja'* in the roof of the house (adopted from [Mardanas \(1985\)](#); [Pelras \(2006\)](#); [Arifuddin \(2013b\)](#)), would show the characteristic identity based on cultural values that were understood by society. The detail can be seen in *Figure 4*, above.

In Buginese-Makassarese settlements or towns, the city center is also still known for its orientation of the city that is usually characterized by open space or the Lord's house. Usually, the city center is located on side of the main road accompanied by one or more lane roads that branch off from the main road. The building orientation usually leads to the four cardinal axes (North, South, West, and East) or a higher priority on the orientation towards the waters of river or sea as the main transportation routes.

Determination of the building orientation in the Buginese-Makassarese settlements (towns) refers to three categories: orientation to the wind directions (north, south, west, and south), orientation to landscape (water), and artificial landscape orientation (street). For example Balla Lompoa is oriented to the river, Somba Opu Castle is oriented to the sea, and the building of *Arung* (King) in Wajo is oriented to the waters. In the early days of Makassar city, houses/buildings on the coast were predominantly oriented to the sea and some are oriented to the wind directions. Building orientation to the wind directions was based on the cosmological values and Islamic law which were well understood. Orientation of the building to the East is understood as the direction of sustenance, while the west is considered sacred because it is the direction of the Qiblah. While the north is understood as the direction of the deceased when laid, so that the south is seen as the way of living. However at this time, the orientation of the building, especially in urban areas tends to be oriented toward only the street network. However, if we observe the orientation of the buildings in Makassar city, it seems there is a visible building orientation pattern to the wind and street lane directions. The detail can be seen in the following *Figure 5*, below.



1. Buginese-Makassarese society has local knowledge based on cultural values, cosmology, and philosophy understood through generations. Although public awareness of these values has undergone some changes due to the development of modernization, cultural values or local knowledge in general is still understood and implemented in Makassar city. The values of local knowledge can be used as a basis in order to plan more macro areas, and become the identity of urban settlements in Makassar city.
2. Buginese-Makassarese cultural values which have been significantly applied and have a role in the formation of Makassar city are: street pattern, building form, and orientation of the building. Street pattern is an element of the form the city structure and urban land use patterns. Direction of the building orientation is the foundation with which to manage building layout and the construction of street lanes, while the building form is an icon of the city which nuances local culture.
3. The Buginese-Makassarese cultures that are understood and still applied in Makassar city are: a) The street pattern according to the understanding of the Buginese-Makassarese are a grid and spread pattern. The street pattern that is a grid has a chance of high accessibility in all directions, so that the movement of people both internally and externally is easy. b) The building forms which are understood as identifiers of the city character that nuance Buginese-Makassarese culture are the building forms that adopt one of the traditional house symbols, among others: the stage form, *lego-lego* forms, and the roof forms with the *timpa laja'* element. c) Orientation of the houses are faced to the four corners of wind directions (West, South, East, and North).

## REFERENCES

- Abdullah, H. (1985). *The Bugis-Makassar: Manusia Bugis Makassar* (in Indonesian), Intidayu Press, Jakarta.
- Abidin, A.Z. (2003). "Siri, Pesse, Were: Worldview of the Bugis", *Siri' and Pesse, Self-Esteem of the Bugis, Makassar, Mandar, Toraja: "Siri, Pesse, Were: Pandangan Hidup Orang Bugis", Siri' dan Pesse, Harga Diri Orang Bugis, Makassar, Mandar, Toraja* (in Indonesian), ed.: Mustafa, Yahya, Pustaka Refleksi, Makassar.
- Arifuddin. (2012). "Manifestation of buginese cosmology and social stratification in traditional settlements", *The Proceedings of International Conference on Indonesian Architecture and Planning*, UGM, Yogyakarta.
- Arifuddin. (2013a). "Study of cultural values manifestation in the city formation: A theoretical study", *The Proceedings of International Seminar on Architecture in Urbanized Maritime Culture: Chances and Challenges in Design and Planning for Sustainable Future, and the 3rd CONVEEESH*, Department of Architecture, Faculty of Engineering, Hasanuddin University, Makassar.
- Arifuddin, et al. (2013b). "Manifestasi Simbolis-Filosofis dalam Perumahan dan Permukiman Masyarakat Bugis di Sulawesi Selatan", *Research Report*, Unpublished, LP2M, Unhas.
- Budihardjo, E. (2005). *Tata Ruang Perkotaan: Urban spatial* (in Indonesian) PT. Alumni, Bandung.
- Hamid, A. (2003). "Siri' Need to revitalization, Siri' and Pesse Self Esteem of the Bugis, Makassar, Mandar, Toraja": *Siri' Butuh Revitalisasi, Siri' dan Pesse, Harga Diri Orang Bugis, Makassar, Mandar, Toraja* (in Indonesian), ed. Mustafa, Yahya, Pustaka Refleksi, Makassar.
- Hillier, B. and Hanson, J. (1984). *The social logic of space*, Cambridge University Press, New York.

- Ibrahim, A. (2003). *Sulesana*, Set of Essays on Democracy and Local Wisdom: *Sulesana, Kumpulan Esai tentang Demokrasi dan Kearifan Lokal* (in Indonesian), Lepas-Hasanuddin University, Makassar.
- Machmud, H. (1978). "Silasa", Set of Bugis Makassar Wisdom: "Silasa", *Kumpulan Petuah Bugis Makassar* (in Indonesian), Bhakti Centra Baru, Makassar.
- Mahgoub, Y. (2004). "Globalization and the built environment in Kuwait", *Journal Habitat International*, 28, 505-519.
- Mardanas, I., dkk. (1985). Sul-Sel Traditional Architecture: *Arsitektur Tradisional Daerah Sul-Sel* (in Indonesuan), Dep. P dan K. Jakarta.
- Mattulada. (1975). *La Toa*: "An analytical review against anthropology-political Bugis": *La Toa: "Satu Lukisan Analitis Terhadap Antropologi - Politik Orang Bugis"* (in Indonesian), *Dissertation*, Indonesia University, Jakarta.
- Moleong, L.J. (2008). Qualitative research methodology: *Metodologi Penelitian Kualitatif* (in Indonesian): PT. Remaja Rosdakarya, Bandung.
- Pelras, C. (2006). *Manusia Bugis (Original Title: The Bugis)*, Translated by Abdul Rahman dkk, Forum Jakarta Paris dan Ecole Francaise d'Extreme-Orient, Jakarta.
- Rapoport. (2005). *Culture, architecture, and design*, Locke Science Publishing Company, Inc.
- Santoso, J. (2008). Architecture-Java City: kosmos, culture and power, centropolis: *Arsitektur-Kota Jawa: Kosmos, Kultur dan Kuasa* (in Indonesian), Magister of Planology, Tarumanagara University, Jakarta.
- Sugiyono. (2008). Qualitative, quantitative, and R&D research method: *Metode Penelitian Kuantitatif, Kualitatif, dan R & D* (in Indonesian), Alfabeta, Bandung.
- Tweed, Ch. and Southerland, M. (2007). "Built cultural heritage and sustainable urban development", *Journal Landscape and Urban Planning*, 83, 62-69.
- Watson, V. (2009). "The planned city sweeps the poor away...: Urban planning and 21st century urbanisation", *Journal Progress in Planning*, 72, 151-193.
- Yudono, A. (2006). "Water Friendly Coastal City". *The Proceedings of SENVAR 7th*, ed. Ramli Rahim & Rosady, Unhas. Makassar, 315-320.
- Yudono, A., et al. (2012). "Local Wisdom-based Planning to Face The Environment Quality Degradation: Case Study Tana Toraja, Indonesia". *The Proceedings of the 8th International Symposium on City Planning and Environment Management in Asian Countries*, *Asian Urban Research Group*, ed. Satoshi Hagishima, Tianjin, China, 311-320.