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Special Issue on “Local Wisdom for Better City Planning”
Guest Editor: Respati Wikantiyoso and Pindo Tutuko

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Editorial Introduction

Special Issue on Local Wisdom for Better City Planning

Guest Editors:

Respati Wikantiyoso^{1*} and Pindo Tutuko¹

1 Architecture Department, University of Merdeka Malang.

** Corresponding Author, Email: respati@unmer.ac.id*

In this issue we are attempting to discuss local wisdom in an effort to learn more about local knowledge and wisdom as an important way of understanding local concepts, planning experience, historical asset management and planning methods as potential assets in order to create better city planning. Study of concepts, theory, and best practices on local knowledge of the past results in design outcomes through the review of the design and practice of urban planning in an effort to develop sustainable urban design practices. Local wisdom in spatial city planning that characterizes a city is an important aspect in the process of spatial city planning. Thus urban development through planning policy must be able to accommodate local knowledge in order to create better city planning.

Studies on the application of the Bugis-Makassar culture in Makassar, Indonesia conducted by Akil, Yudono, Latif, and Radja is significant in the field of coastal urban planning. This study intended to obtain a reference standard for coastal urban planning that takes into account local knowledge to develop a model of urban planning based on coastal construction and development of the cultural integrity of science, technology and art. Akil and colleagues conducted a study of local knowledge exploration on the Bugis-Makassar culture that emerged and developed along the coast of Makassar, Indonesia. This study was that the Bugis-Makassar society has local knowledge based on cultural, cosmological, and philosophical ideas that have long been understood. Implementation of the cultural values that still exist in the city of Makassar has been able to influence rules on a macro level. Some Bugis-Makassar cultural values identified and implemented in the city of Makassar, were formed in particular through urban landscape pattern, building shape, and building orientation.

In the study “The Development of Code River in Yogyakarta Areas as Sustainable Urban Landscape Assets under Consideration of Local Wisdom”, Soemardiono and Gusma conduct research along the Code watershed in Yogyakarta, Indonesia, in an effort to preserve the potential of the urban landscape taking into account local knowledge. The authors convey the importance of preserving the natural environment along the Code River as an asset of the Yogyakarta city landscape. This is expected to improve the performance of spatial planning, which can improve the sustainability of ecological functions within an urban ecosystem.

Code is a unique river spread out from the northern to southern parts of Yogyakarta, which has a natural landscape function, especially in the urban area. The high aesthetic landscape quality is shown in Gemawang district.

Concerning the essential function of Code River as an urban landscape asset of the Yogyakarta waterfront, efforts should be taken in conserving that area.

The Code river area not only serves to maintain the ecology, but also serves as a potential public space that can be promoted as a place of natural recreation for individuals or communities of the city. Utilization of space along the river Code in the city landscape can enhance the visual landscape of the region through the concept of sustainable urban planning accommodating local knowledge.

The urban planning experience of Harare City in Zimbabwe presents conflicts of interest in urban planning and a lack of attention to the interests of local communities in Harare's city planning, making it an important case study for understanding the concept of sustainable planning. Chirisa, Kawadza, and Muzenda, in a study entitled "Unexplored Elasticity of Planning and Good Governance in Harare, Zimbabwe", discuss governance elasticity in Harare's city planning and how planners pay little attention to the role of local communities which is the source of potential conflict between central government policy and local government. After 1980, the city of Harare has had many conflicts of interest, illustrated by the imposition of top-down policy from the central government, as opposed to policies from the bottom, up. The role of central government keeping very tight control in planning led to the neglect of the interests and needs of local communities.

This paper examines the socio-economic dynamics and political history of contemporary urban planning and Harare is expected to improve its planning process aspirations, level of public participation and is expected to pay attention to local culture in order to reduce city planning conflicts; the role of the community and investors in developing Harare city in cooperation with the government hopes to achieve good city planning governance.

The planning and design of specific areas that have historical value should be analysed in-depth. Historic sites are very valuable assets that cannot be remade, so the owners - governments, individuals or institutions alike - have the duty to maintain these assets. Unlike other precious commodities, historic buildings cannot be returned to their original state if lost/destroyed.

In of the article "Review on Main Characteristic of Historical City as an Alternative Urban Design: A case study in Cakranegara City, Indonesia", Mulyadi conducts a study on the preservation of the old city Cakranegara, Indonesia. The main problem of this old city's preservation is how they accepted change without removing the main cultural and historical features.

The study of the main characteristics of Cakranegara was conducted by comparing the basic principles of social, cultural and religious beliefs with empirical field data. This study adopted four methods: questionnaire, cognitive mapping, interviews and visual observations. The questionnaire data were statistically analysed, whereas cognitive mapping data, interviews and visual observations were analysed qualitatively. The analysis of the physical characteristics of the design of Cakranegara urban residential blocks, intersections, urban design, spatial orientation and hierarchy found that the basic social, cultural and religious principles lead to the realization of the main characteristics of the historic town Cakranegara.

In of the study "Review on Practical Approach of Sustainable Urban Design Strategy in the Perspective of Conflict in Shanghai", Mo and Wang investigated two domains, those of space construction and social action, in order to explain a strategy for sustainable urban design. They explain the potential conflict possibilities in the development of Shanghai, and according to the urban development of Shanghai, five conflict fields are proposed and the relevant empirical studies are implemented. Focusing on the above two

dimensions and combined closely with the stage characteristics of urban development a more practical approach to sustainable urban design is explored. The research of Mo and Wang produces a content framework for sustainable urban design strategies which can be derived from the dimensions of urban and social spaces. This strategy aims to minimize conflict in the development of the city of Shanghai.

All submitted manuscripts were peer-reviewed. The guest editors would like to thank the reviewers for their hard work, time and valuable comments and suggestions that make this special issue possible.

The Development of Code River Area in Yogyakarta as a Sustainable Urban Landscape Asset acknowledging Local Traditional Knowledge

Bambang Soemardiono^{1*} and Ardhyasa Fabrian Gusma²

1 Department of Architecture, Faculty of Civil Engineering and Planning, Institut Teknologi Sepuluh Nopember (ITS)

2 Department of Technical Architecture, Gadjah Mada University

**Corresponding author, Email: bamsoem03@yahoo.com; bsoem@arch.its.ac.id*

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Abstract: River Bank is an area which not only maintains the area's ecological functions but also exists as a potential public space which can be promoted as a natural recreation area for individual or groups. Regarding the Government Decree Nu 38 Year 2011, the river area is described as an area which maintains the functions of the river, by supporting its morphology, protecting the area against flood, providing habitat for flora and fauna, conserving water, as well as ensuring good micro climate quality. *Code* is a unique river spreading from northern to southern parts of Yogyakarta, whose natural landscape functions, especially in the urban area (sections 3 to 6), are deteriorating. The aesthetical landscape quality is high in *Gemawang* district. However, in other urban areas such as *Keparakan, Tegal Panggung, Terban and Wirogunan* (belonging to section 3 to section 6), we still find slums and low quality river areas. *Code* River is the urban landscape asset of Yogyakarta. Concerning its essential functions, efforts should be taken to conserve this area. This is expected to enhance the performance of spatial planning, which can improve the sustainability of the ecosystem in the city and its ecological functions. In this paper, through identifying the problems in deteriorating landscape functions and quality, it is indicated that public participation is not included in the holistic concept. Through the exploration of the criteria for creating a development concept, public participation is included. Focusing on land use and visual landscape, the concepts of spatial land use along the selected urban area of the *Code* River are created to improve the performance of sustainable urban landscape assets through the acknowledgment of local traditional knowledge.

1. INTRODUCTION

1.1 Background

Urban landscapes are described as socio ecological systems where natural and social processes work together within the ecosystems ([Andersson, 2006](#)) and can be explored in respect of how cities developed over time and their relation to nature. The river bank is part of the urban landscape; it has ecological functions and plays a role as a potential public

space, it can also be promoted as a natural recreation resource for individual or group visitors.

Regarding the Government Decree Nu 38 Year 2011, the river area was described as an area 10 to 30 meters wide, depending on its depth. That declaration has the objective of not only maintaining the function of the river by supporting its morphology, providing flood protection and the habitat of flora and fauna, but also for conserving water through the maintenance of micro climates. *Code River* is a unique river, it spreads from northern to southern parts of Yogyakarta. If we look at the nine sections as determined by Yogyakarta government, it can be seen that section 4, 5 and 6 are located in the urban area (Figure 5). These sections include the districts of *Gemawang, Keparakan, Tegal Panggung, Terban* and *Wirogunan*. Recently, the functions of the natural landscape in *Code River* have been declining. The river banks are neither aesthetically nor ecologically balanced. Moreover, the land use in that area seems unplanned. The river bank in *Gemawang* shows highly aesthetic landscape quality, however, slum areas are still found throughout the entire urban area, such as in *Keparakan, Tegal Panggung and Wirogunan*. Those conditions result in the river area lacking in quality. For that reason it is essential to conserve and to revitalize the river area in order to support the existing famous district's nodes, called *Malioboro*. Efforts should be taken in conserving the potential public space under the consideration that *Code River* is one of the important landscape assets of Yogyakarta waterfront. This could be achieved by increasing the performance of spatial planning and by facilitating the development and sustainability of the ecological functions of the city's ecosystem.

The holistic concept of sustainable development should include three aspects, namely ecological, economic as well as social aspects. Since previous research has been concerned with those aspects only partially, this research makes an effort to deal with all three aspects by including public participation to overcome problems related to land use and the visual landscape. The first step will be to identify the problems in the urban river area of Yogyakarta, followed by an exploration of the criterion and development of the concept toward achieving spatial land use and landscape quality in the selected urban area, creating sustainable urban landscape assets.



Figure 1. *Code River* in urban areas (Tegalpanggung, Wirogunan, Keparakan)
Source: Department of Public Work, Housing and Mineral Energy, Yogyakarta, 2011



Figure 2. The high aesthetical quality of the landscape is shown in the river area of *Gemawang* and the slum area and lack of high river quality.

Source: Soemardiono, B., 2012

Based in the context of the urban landscape, the problems can be identified as follows:

- 1) The functions of the natural landscape in the *Code* urban river area show a low quality, caused by the low aesthetical and ecological quality of the river banks as well as unplanned land use. Although the high aesthetical quality of the landscape can be seen, the potencies have not been explored yet. In addition, in the urban sections, slum areas can still be found.
- 2) *Code* River and its surrounding area have unique characteristics. In reality, however, it has not yet been explored as a potential asset of the urban landscape.
- 3) Previous research did not apply holistic concepts and public participation. This research will focus on the urban area of *Code* River by considering potential tourist attractions and unplanned land use.

2. THEORETICAL REVIEW

2.1 River bank as waterfront area, public open space, nodes and element of sustainable urban landscape

[Nicholin and Repishti \(2003\)](#) thought that in recent years, the concept of landscape has undergone more changes than before. Tadao Ando in [Nicholin and Repishti \(2003\)](#) sought to achieve spaces that stimulate the human spirit, awaken sensitivity and communicate with the deeper soul. According to their research, this will reflect a new meaning of landscape. Rather than merely “*visible feature of territory*”, its definition has extended precisely in order to accommodate the interaction between human activity and the environment. Every physical, human, cultural, social, perceptive and economic element of a landscape have now become a part of the same notion. Currently, landscape architects work in many fields such as environmental planning, large-scale recovery for abandoned and residual areas, design of public spaces and parks, design for private gardens, as well as in art and photography. In addition [Simonds and Starke \(2006\)](#) stated that the work of the landscape architect is to help bring people, structures, activities and communities into harmonious relationship with the living earth, with the want to be “of the land”. Meanwhile, Turner (2009) has defined sustainable urban landscape as having an absolute balance between “environmental, economic and social needs”, which is cited by almost every landscape practice in England. In addition, [Bergstrom, Elmqvist, et al. \(2006\)](#) describe that urban landscapes constitute the future environment for most of the world’s human population. An increase in understanding of the urbanization process and the effects of urbanization at multiple scales is, therefore ensuring human well-being. [Susilo \(2006\)](#) mentioned that urban landscapes

have common characteristics, such as that the building and the urban space are not fit to human scale, that there are very few trees and vegetation in urban areas, and the land surface is full of buildings or structures with minimum open space and as a result it leads to insufficient spaces for water absorption and causes heat islands. Concerning the sustainability of recent and future land use, the environmental capacity and landscape character have to be considered. The changing of two aspects will be affected by social, economic, as well as environmental factors. Landscape planning is holistic because in planning all aspects, such as social, cultural, economic and aesthetics, must be integrated in line with the task of the landscape architect to help the community, to enhance urban landscape structure and to provide activities that lie in harmony with nature. Riverbanks as an urban landscape element play an important role in developing the unique landscape character of a city. For instance along *Tsim Sha Tsui, Hong Kong*, people can walk along the well-known promenades while enjoying the beautiful scene of waterfront buildings and other potentials views. In Singapore people enjoy the atmosphere of the river while observing the beauty of the landscape.



Figure 3. River Banks *Tsim Sha Tsui*, HongKong, Source: Soemardiono, B, 2011



Figure 4. River Banks in Singapore, Source: Soemardiono, B, 2006

Water is a very essential need for everyday life, therefore architects should consider it in their projects ([Triquell, 2012](#)). They should accommodate water as a visual element in their design concepts. Riverbanks, for instance, are a part of the waterfront area. The waterfront is often an edge of a city and can include rivers, lakes, oceans, bays and canals, as well as smaller rivers or creeks ([Breen and Dick, 1994](#)). The Indonesian government provides a guideline which describes several kinds of waterfronts as follows:

- a) *Commercial Waterfront*: Used for tourism, for presenting local culture and the aesthetical value of the physical landscape area. These might promote economic, social and cultural values.
- b) *Historical/Heritage Waterfront*: Used to conserve landscape elements, sites and buildings and/or rehabilitation for modern use, serves as a new development control in keeping the city character as well as safety from abrasion.
- c) *Cultural, Education, and Environmental Waterfront*: Utilises the landscape potential for research, cultural activities and environmental conservation such as of mangrove fields, etc.
- d) *Recreational Waterfront*: Utilises open spaces and waterfront for indoor and outdoor recreation incorporating the uniqueness of local architecture.

- e) *Working and Transportation Waterfront*: Utilises rivers or coasts for transportation and industry, supporting economic activities through the maintenance of environmental values. It also supports other facilities, including easy transportation and utilization, public access, groundwater and greenery.
- f) *Residential Waterfront*: Allows for development with private and public interest. New developments should maintain the existing local settlement and improve quality in line with market potential.
- g) *Defence Waterfront*: Used for defence following special regulations.

[Maryono \(2005\)](#) wrote that rivers have vital functions regarding their ecology. The river and its river banks act as a habitat with plenty of flora and fauna. They play a role as a barometer of the ecological conditions of an area, for example, a natural river can supply oxygen. Urban areas need river restoration in order to revitalize existing ecological components. In Article 9: [Indonesian Government Decree Nu 38/2011](#), the demarcation line of the river borders in urban areas is determined (as referred to in Article 8 paragraph (2) letter a) as follows:

- a) At least 10m (ten meters) from the left edge right along the river bed and river basins, where the depth of the river is less than or equal to 3m (three meters),
- b) At least 15m (fifteen meters) from the left and right edges of the riverbed along the river channel, where the depth of the river is more than 3m (three meters) and up to 20meters (twenty meters); and,
- c) At least 30m (thirty meters) from the left and right edges of the riverbed along the river channel where the depth of the river is more than 20m (twenty meters).

Considering a river as a sustainable urban landscape, there is a study named URSULA or *Urban River Corridors and Sustainable Living Agendas* which has in the unique aim of developing the river corridor holistically. This research wrote that there are significant social, economic and environmental gains to be made through integrated and innovative interventions in urban river corridors. According to this study, the development of rivers and their urban settings is built upon a system of innovations, tools and knowledge which support the regeneration of urban river corridors worldwide. This study reviewed that rivers are at the heart of many cities historically and these potentially attractive and ecologically interesting urban spaces are now prime targets for redevelopment, offering the opportunity to create mixed use, high-density and high-quality communities.

2.2 Image of the city and linkage theory

An environmental image can be broken down into three components, namely identity, structure and meaning. A workable image requires first the identification of an object, which implies its distinction from other things, and its recognition as a separable entity ([Lynch, 1979](#)). In addition, he wrote that the city image content so far studied, which is refers to the physical form, can conveniently be classified into five types of elements: paths, edges, districts, nodes and landmarks. In addition Maki, in [Zahnd \(2006\)](#) wrote that linkage is simply the glue of the city; it is the act by which we unite all the layers of activity and which results in the form of the city. According to [Zahnd \(2006\)](#), urban linkage has three approaches: visual, structural and collective linkage. Linkage elements are needed in order to help people in understanding the urban fragments as a part of the whole

urban structure; visual linkage connects two or more fragments into a visual unity (in the forms of line, corridor, edge, axis and rhythm); and structural linkage combines two or more urban structures into a united arrangement (through addition, connection and penetration). In addition, linkage as a collective form consists of two approaches, namely different or connected with the environment. In this paper, visual and structural linkage play important roles in development.

2.3 Criteria in urban landscape design

Urban landscape design poses not only universal, such as aesthetic, but also local values. Development will be achieved following specific process and certain design criteria, which contain general and local criteria decided by the community. [Muerb \(1995\)](#) explains these criteria in examining the ecological potential and aesthetics of landscape in the practice as follows:

- a) Keeping the space of the aesthetical and ecological landscape and its main structure in the context of urban design as well as keeping the significant geomorphologic landscape. Preserving the historical view, keeping the settlement boundary and part of the city which is historically recognizable, bonding the landscape edge with elements of appropriate vegetation and avoiding visual hazards in the landscape and city views. Considering the typical form of the new development, there is no industrial building in the landscape nor any unplanned settlement.
- b) Designing an entrance and signage with green elements. Developing the greenery of the settlement which serves the social, climate and ecological functions and the green open space together with the existing buildings in a city. Improving the quality of the settlement through the green system and efficient arrangement as well as traffic arrangement in the settlement and street development in certain parts of the street.
- c) Maintaining the backbone of the city greenery and greenbelt in large scale city planning to minimize negative effects on the landscape in which the dimensions and arrangement should be oriented from an ecological perspective. Developing land and industrial use with special vegetation to avoid the decreased functioning of biotopes in the dense city, utilising sufficient open space as well as space quality to mitigate emissions and such developments (housing, recreation, agriculture and biotope) that produce more emissions.
- d) Avoiding development in the landscape that maintains cold air and conserves land with high biological potential for agriculture and discourages development on steep land in order to avoid erosion and reductions in water absorption, avoiding ground and surface water pollution through settlement and service uses and no development on riverbanks to protect the groundwater as well as no development in the parts of the city with high diversity of biotopes.

3. METHODOLOGY

The descriptive qualitative method is used in this research in which the main research method is public participation with an observation process and the involvement of researchers playing an important role. Two main steps have been arranged in this research. The first is to identify the problems and

potencies in the research objects. The second is to create the criteria to develop concepts in which spatial land use and landscape quality in the selected urban areas along the *Code* River fit into the holistic concept of sustainability, acknowledging local traditional knowledge. In order to conduct a *walkthrough analysis*, an observation sheet and checklist were created. The observation was carried out to collect primary data such as graphical information through sketches, and digital recording through photos and video. The data are presented as facts and will be supported by intensive discussions with the community. That information will be discussed in the context of secondary data, such as supported theory, regulation and master plans, to create criteria. The criteria will inspire the concept creation. A schematic diagram and design visualization of the concept can be developed following consideration of structural and visual linkages.

4. RESULT AND DISCUSSION

4.1 Ecological potential of the *Code* River as a basis for developing the river area

Nine sections of the *Code* river area are defined as research objects, which are categorized into five urban sections. The five *urban sections* are also considered as ecological basic in this research. The selected locations in the area will be investigated and developed as waterfront urban landscape assets supporting the famous existing node in Yogyakarta, which are called *Malioboro*.

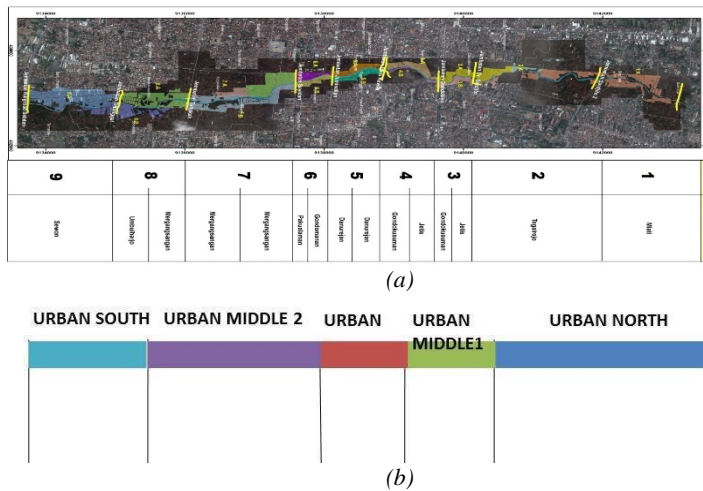


Figure 5(a). Nine sections of *Code* River

Source: Department of Public Work, Housing and Mineral Energy, Yogyakarta, 2011

Figure 5(b). Five urban river sections as ecological basic of the research

Problems identified in the five urban *Code* river sections are narrow river bank space, dense and unplanned settlements and highly polluted areas. In some places, however, we can still find areas that are highly aesthetic as well as high in ecological value. Moreover, the communities practice creative economic activities, have high solidarity, and conduct water recreation activities. Based on the guidelines of local government set by the Minister and the Governor of Yogyakarta, the demarcation line of *Code* River is about 10m (ten meters).

4.2 Local traditional knowledge in the form of public participation as a basis for designing a new development

Sustainability is not only a matter of form itself, but also the process of creating the form ([Anderson, 2006](#)). In the case of how to create a sustainable landscape, ecological aspects need to be enhanced as well as social aspects, in the form of accessibility of the citizens to various implied ecosystem services.



Figure 6. Discussion with the community at *Keparakan*

Source: Soemardiono, B, 2012

Through discussion with communities, it was identified that there is some potential as well as problems in the urban area of *Code River* from the economic, societal and ecological aspects. Although a community forum regarding maintaining the ecological aspects already exists, they did not pay attention to the aesthetics of *Code River* and unplanned land use along the river. The urban areas are lacking green elements, although along some parts of the riverbanks, they have improved its quality through simple greenery, however the decreased function of the riverbanks has occurred due to insufficient open space. Discussion with different community stakeholders is very effective in overcoming some problems due to the improvement of social-economic as well as ecological aspects that result. For instance, the community in the dense settlement of *Gemawang* have not used the natural beauty of the landscape and the availability of unbuilt areas as a capital yet. In addition, the community in *Tegalpanggung* is very open and ready to move toward revitalization and in *Keparakan* they wanted better accessibility to their potential home industry and discussed their inability to provide facilities promoting their shoe collections and parking areas for guests because of insufficient self-financing. In addition the night cuisine in *Wirogunan* which is managed by the community is very unique using the river's atmosphere as the main attraction. Furthermore the discussion concluded that such a holistic and integrated development should be made along the urban riverbanks.

4.3 Concept for a new development of *Code River*

This section reports the recorded data, which includes problems and opportunities in the urban river bank area. By considering structural linkage along with intensive discussion with the local community, the concept is developed.

4.3.1 Identification, criteria and concepts of *Gemawang*

Identification:

- a) *Gemawang* is one of the high density settlements, located very close to the famous monument of Yogyakarta and *Tugu*. A social gap occurs in this area between the new inhabitants and the indigenous who are very poor.
- b) The natural beauty of the landscape and the availability of unbuilt areas and ponds have not yet been optimally used.
- c) The community forum called "*Pamerti Code*" was established to maintain sustainability of the river, for instance to keep it clean and without any litter.
- d) Around the river bank in the district *Gemawang*, there are several recreation facilities such as a Culture House, pedestrian way along the river, and gazebos. Those provide opportunities for water recreation. In addition, the new *Sardjito* Bridge is attractive.
- e) School and university students are expected as users of the recreational area along the river banks.



Figure 7. Existing condition of *Gemawang*.

Source: Soemardiono, B., 2012

Criteria:

- a) Dense settlement in *Gemawang* should be redesigned and supported by open spaces.
- b) Visible and easy access to the location has to be created, supporting facilities and public infrastructures for a new tourism destination also need to be developed.
- c) The riverbanks, open spaces and the unused existing facilities must be revitalized.

Concept:

- a) Redesigning new settlement with open spaces. Developing a new tourism destination in the form of water recreation with easy access to the location (main and side entrance) and keeping the beauty of the river as a natural landscape asset and planning sufficient public infrastructures such as toilets, parking areas and a mosque.
- b) Revitalizing river banks and redeveloping existing facilities such as the Culture House *Gemawang* and gazebos.

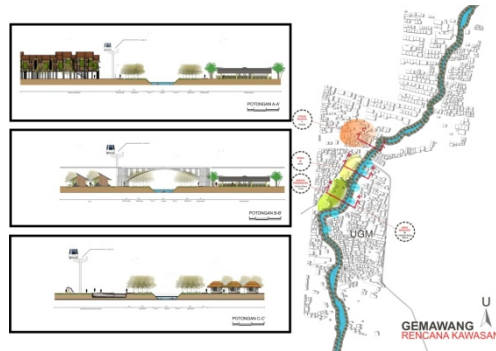


Figure 8. Concept of Gemawang
Source: Soemardiono, B. and A.F.Gusma, 2012



Figure 9. Redesign of new settlement with open spaces.
Source: Soemardiono, B. and Gusma A.F., 2012

4.3.2 Identification, criteria and concepts of *Keparakan*

Identification:

- a) *Keparakan* has middle density population (11.211 people in 54.75ha). The area is close to the river and consists of five neighbourhoods (*RW 7 to RW10*, and *RW 13*). In 2011, the GDP of the local people was lower than that of the city of Yogyakarta. The economic condition can be categorized as poor (9%), middle wealth (79%) and wealthy (13%). The unequal land capacity with rapid growth results in quite complex environmental gradation.
- b) On the other hand *North Keparakan* is growing into the Kampong of shoemakers. It is managed by a cooperation, which has a membership of 50 families. Resulting from community discussion it was found they have had difficulties in creating the shoemaker village.
- c) Community discussion reported that they are not able to provide showrooms for promoting their collections or parking areas for guests because of insufficient self-financing.
- d) The people expect more transportation access and pathways along the river to access the shoemaker area.



Figure 10. Existing Condition of *Keparakan*
Source: Soemardiono, B (2012)

Criteria:

- a) Public housing facilities should be developed in order to avoid dense settlement.
- b) Showrooms for promoting collections and other facilities should be included in the capacity of the buildings for management and development to be established.

c)Development of accessibility along the river and through the shoemaker village.

Concepts:

- a)Development of city blocks and public spaces.
- b) Designing display/showroom in a suitable location to promote the shoe-collections and to accommodate management.
- c)Parking area as well as a pedestrian way through the village, river walkway and biking lane which reach the *Keparakan* shoemaker village.

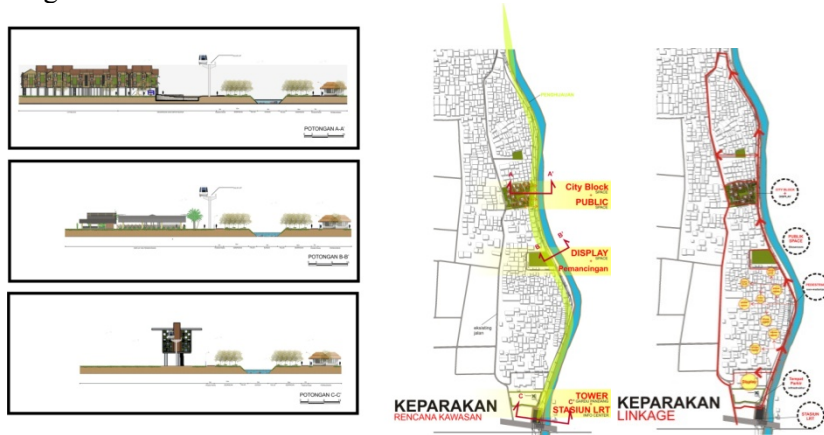


Figure 11. Concept and linkage of *Keparakan*
 Source: Soemardiono, B. and Gusma A.F., 2012



Figure 12. Concepts of *Keparakan*: Development of showroom, city block and public spaces as well as river walk and mass transportation

4.3.3 Source: Soemardiono, B. and Gusma A.F., 2012 Identification, criteria and concepts of *Wirogunan*

Identification:

- a)*Wirogunan* is the closest settlement near the river which consists of eight neighbourhoods. The majority of people are middle-low income earners with low level education and practise.
- b) The location is next to a recreational spot and a university, making *Wirogunan* popular for its cuisine. It has huge potential as a creative economy such as the Community Activity Unit (*or Unit Kegiatan Masyarakat / UKM*).
- c)The night-cuisine tourism is very popular and spreads 300m along the river. The other potential products are “*bird nests*”, accessories, clothing and bags.



Figure 13. Existing condition of Wirogunan and the culinary tourism at night.
Source: Soemardiono, B.,2012

Criteria:

- a) A linked facility should be developed in promoting the night cuisine market and other activities using the atmosphere of the natural river as an attraction.
- b) Facilities for culinary activities should be promoted and developed as well as managed by the people.

Concepts:

- a) Design the linked culinary spots along the river (about 2800m) to promote the night culinary activities using the open public space and other activities which use the river as an attraction.
- b) Design a parking area in each culinary spot with easy accessibility (river walkway).



Figure 14. Design the linked culinary spots along the river
Source: Soemardiono, B. and Gusma A.F., 2012

4.3.4 Identification, criteria and concepts of Tegalpanggung

Identification:

- a) *Tegalpanggung* is a 35ha dense settlement close to *Malioboro* with a population of 9.217 (most of them are traders in *Malioboro*) and serves as the smallest neighbourhood (*Rukun Warga/RW*) with the highest density in Yogyakarta, followed by the unequal development between the west and east side. The poor community increases from year to year and in 2009 it reached 50% (in *RW1, 2 and 3*). There are lots of home industries in *Ledok Tukangan* whose products are sold in *Malioboro* and there is also an important community tourism organisation.
- b) The community, according to the discussion, preferred privately owned housing and questioned whether any construction will be implemented on their dwellings.



Figure 15. Existing condition of Tegalpanggung
Source: Soemardiono, B.,2012

Criteria:

- a) It should strengthen the community organization by supporting the existing community.
- b) Planning and redesign of settlement should be done in serving and supporting Malioboro.

Concepts:

- a) Strengthening the existing community tourism organization.
- b) Redesign privately owned city blocks equipped with other facilities such as showrooms (*kampung gallery*) and culinary spots to encourage development of tourism in well-known Malioboro.



Figure 16. Structural space and the Development of private owned city blocks and other supporting facilities of Tegalpanggung
Source: Soemardiono, B. and Gusma A.F., 2012



Figure 17. Redesign of privately owned city blocks of Tegalpanggung
Source: Soemardiono, B. and Gusma A.F., 2012

5. CONCLUSION

This paper describes the concept of enhancing the riverbank quality as a natural landscape asset of the city Yogyakarta. The riverbank could not perform good functions as a natural landscape because of low aesthetic and ecological quality, for instance in *Gemawang* and *Tegal Panggung* district. The concept proposed in this research shows that the riverbank in those areas will be improved by maintaining the high aesthetic quality of the landscape and by considering the ecological potential of *Code River*. Aside from its ecological potential, *Code River* has a unique character, which is known as “to be seen from above”. That character, as well as the economic and social

value, is integrated with its ecological one to be set as a new paradigm of tourism.

Previous research on the urban landscape development concept have not been concerned with sustainability, which incorporates three aspects, namely ecological, economic, and social. In the concept resulting from this research, to optimize the potential of the river (*Gemawang, Tegalpanggung*), the unique characters of *Code River* were explored and determined as potential landscape assets that can be improved by renaturalisation of the river. Those ecological aspects mentioned before will be incorporated within river tourism, which in turn, can improve the economies of those districts. Such ecological and river-tourism strategies will reflect the sustainable urban landscape concept. This concept was formulated based on discussion with the neighbourhood community in four selected districts as research cases, with the resultant criteria.

Holistic planning and consideration in land use should be done under participation of the stakeholders such as in the form of *Local River-based Community*, namely *Pamerti Code*. The outcomes of the participation should be considered as potential factors in creating new concepts.

The concepts regarding land use as a result of this research are: 1. developing mixed use vertical housing in the river banks and housing in Central Business District (*Tegal Panggung*). 2. Land sharing is also proposed as a land use concept for sustainable Urban Space Consolidation, such as developing special housing for people, which is safe from flooding. If the concept is implemented, the riverbanks become an open space which can maintain the ecological functions and qualities of biotic and non-biotic components. *Green Kampung* as vertical housing settlements should be integrated with multiple transport modes (automobile and biking) infrastructure to keep the city tourism within the existing and cheap infrastructure for future development. Considering landscape values and land capacity can strengthen the quality of urban areas. Those two aspects should be considered in the development program. Focusing on the urban area of *Code River* and considering public participation potential for tourism can be developed and unplanned land use avoided.

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REFERENCES

- Andersson, E. (2006). "Urban Landscapes and Sustainable cities", *Ecology and Society* 11(1): 34, Stockholm.
- Bergstrom, S.T, T. Elmqvist, P. Angelstern, and C. Alfsen-Norodom, (2006). "Scale mismatches in management of urban landscapes". *Ecology and Society* 11(2): 16, Stockholm.
- Breen, A. and Dick, R. (1994). *Waterfront, Cities Reclaim Their Edge*, McGraw-Hill Inc, New York, 1-10.
- Direktorat Bina Tata Perkotaan dan Perdesaan, Ditjen Cipta Karya, Dep. PU, (1998). *Pedoman Penataan Ruang Kawasan Perkotaan Tepi Air di Indonesia*. Jakarta.

- Lynch, K. (1979). *The Image of the City*, The MIT Press, Cambridge, Massachussets and London, England.
- Muerb, R. (1995). *Stadtoekologie in der Planungspraxis*.
- Maryono, A. (2005). *Ecological Hydraulics of River Development (2nd Edition)*, Postgraduate Study UGM.Yogyakarta.
- Nicholin, P. and Repishti (2003). *Dictionary of Today's Landscape Designers*. Skira, Italy.
- Peraturan Pemerintah Republik Indonesia No 38 Tahun 2011 Tentang Sungai.
- Simonds, J.O.and Starke, B.W. (2006). *Landscape Architecture*, 4th Edition.
- Susilo, A, H. (2006). *Evaluasi Lansekap Perkotaan u merevitalisasi RTH dalam mewujudkan Konsep Green City*, UPN, Surabaya.
- Triquell, A.L., (Eds.) (2012). *Urban Landscape*, Loft Publication.
- Turner, T. (2009) URL: <http://www.gardenvisit.com/blog/2009/03/20/definition-of-a-sustainable-urban-landscape/>
- Zahnd, M. (2006). *Perancangan Kota secara Terpadu*. Kanisius, Yogyakarta

Unexplored Elasticity of Planning and Good Governance in Harare, Zimbabwe

Innocent Chirisa^{1*}, Shingai T Kawadza² and Archimedes Muzenda¹

1 University of Zimbabwe

2 Urban Development Corporation (UDCORP)

* Corresponding Author, Email: chirisa.innocent@gmail.com

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Abstract: The state of the city of Harare in terms of its present general outlook and critical analysis of its carrying capacity as a colonial city tends to perpetuate an ingrained myth among urban planners and the common people alike that planning has failed the former so called sunshine-city. Yet such a view treats with amnesia the wealth in the elasticity of planning as an instrument for change as well as a strategic force to command and direct the trajectory of cities. It is in this context that this paper discusses the elasticity of planning of Harare as anchored on a complex but well-knit constellation of the factors of good urban governance and political will. These can allow for urban reform and smart transformation. A close look at the city after 1980 shows that the city of Harare has been subjected to much bickering, contestations and intergovernmental impositions of policy hence it exemplifies policy from above as opposed to policy from below. This is largely explained by the central government's hard and fast wrenching control in directing the affairs of the city hence negating the role of the residents' needs and wants. Recently the city has been facing several challenges, more than ever before, and the more critical challenge now is the adopted culture of colonial blaming rather than solving the deep seated problems of poor management approaches. The present study is skewed towards assessing the historical and contemporary socio-economic and political dynamics as far as they have inspired, championed, ignored, and arm-twisted planning. This has largely been to the detriment of the city. Thus, a vortex and maelstrom over the relevance of planning has been created which now requires planning to exonerate itself by proving its worthiness to the citizens and investors whose creeds and needs it has betrayed over the years.

1. INTRODUCTION

Cities of the developing world are succumbing to the effects of rapid urbanization that are resulting in an unfolding urban composition, metamorphosing its classifications, urban forms and their inherent limitations thereby revealing a seemingly limitless expansion of the urban area ([Ijagbemi, 2003](#); [Viana, 2009](#); [UNHABITAT, 2009](#)). With the agenda of planning from a colonial town to a megacity, the process escapes any simplistic notion of territoriality, where the town expands to its seams thereby captivating continuously the peri-urban interface, creating and modifying urban typologies, which are fragmented and interconnected in a problematic manner. Thus [Viana \(2009\)](#) notes that growing cities, like any

other African city, consider various experiences as well as complex social layers that do not fall into sectarian urban proposals. As the huge influx of population migrate from the rural areas as well as natural population increases, more space to settle is demanded and planning becomes a key tool, which always faces mammoth challenges in practice.

There is a need for clear institutional forms to foster a sense of community, stability and faith in the future or else the city runs on a treadmill ([Simone, 2002](#)). As well, corruption deepens poverty by distorting political, economic and social life ([Eigen, 2005](#)). Corruption in urban governance means that decisions are done more for private benefit than public interest. Lack of participation in urban governance by citizens meant that the poor did not have a choice in determining their own development needs and priorities. Indeed, bureaucratic, complex and non-transparent municipal administrative practices often lead to lower revenues, which result in less spending on social programmes to benefit the poor ([Mhlahlo, 2007](#)). Non-transparent land allocation practices push the poor to the urban periphery and hazardous areas, depriving them of secure access to major productive urban assets ([Rondenelli, 1990](#)). In this scenario, governance is the panacea. The governance platform is based on the idea of the “social contract”, as expressed by [Munzwa and Jonga \(2010\)](#). In this arrangement, the government and the local authorities make a social contract with its people on service delivery and the contract implies that the governed agree to be ruled in good faith of their authorities towards the protection of their properties, rights and happiness.

To become better cities, urban governance structures are needed to ensure that the urban environment they create and maintain for their citizens is socially just, ecologically sustainable, politically participatory, economically productive and culturally vibrant ([Magnusson, 2006](#)). While the Eastern model professes that democratization is the product of development, the western model sees democratization as its basis. It is in African cities that the unresolved issue between democratization and development is being fought out. The two models of development and the conflicts between them reflect on urban governance ([Knebel and Kolhatkar, 2009](#)).

Most local governments in Africa are cash-strapped, generating little or no local resources and never getting enough to deliver on the millennium programmes. Two fundamental shifts are needed if the Millennium Development Goals are to be delivered by 2015. The first one is that local governments must be properly resourced both financially and technically. Secondly, they need to be truly local by being fully accountable and transparent to the people they serve ([Chirisa, 2012](#)).

Harare, like other African countries, as put by [Viana \(2009\)](#) is in a current condition of transition that is fragmented and uncoordinated in social and spatial terms, and makes clear the conflict for and against difference and plurality. The extensive growth and the expansion of the city’s administrative boundaries reflect changes in the form and lifestyle of the citizens, which occur often, leading to change in its present urban condition of *urban chameleonism* (ibid.). Thus, the linear urban syntax, sequential and structured that expressed many of the urban narratives of colonial origin, became a hypertext ([Viana, 2009](#)) marked by unpredictability, difference, uncertainty, ideological and financial problems, despotism, liberalisation of markets, alignment of interests and the crisis of values in the community within the context of expanding cities, thereby putting planning in the limelight as a failing approach. As the city grows from a colonial system,

several urban challenges emerge, which calls for robust planning intervention. Hence, it requires an analytical understanding of the city's history to determine the way forward.

This paper, therefore, assesses the historical and contemporary socio-economic and political dynamics as far as they have inspired, championed, ignored, and side-lined or arm-twisted planning largely to the detriment of Harare. It argues that a quagmire and flurry over the relevance of planning has been created which now requires planning to vindicate itself by proving its worthiness to the citizens and investors whose creeds and needs it has betrayed over the years.

2. THE CONTEXT OF HARARE'S EXISTENCE

For one to fully understand and delineate contemporary urbanism and conventional urbanization processes of the city of Harare, it is inevitable to cite the existence of pre-colonial Zimbabwe's urbanity and consequential trends. [Munzwa and Jonga \(2010\)](#) have stated categorically that Harare's urban development history is rooted in colonialism. Be that as it may, one cannot discuss urbanization without referring to colonization and its impacts as colonization witnessed a new socio-political and economic dispensation ([Wekwete, 1994](#)).

The settler occupation era in Zimbabwe was characterized by a high rural population and Salisbury (now Harare) emerged when the settlers' hope for minerals went below expectation. Consolidating the colonization process, the economic activities of the settlers established supportive infrastructure such as roads, railway lines and telegram lines, a sign of establishing permanent settlement ([Rakodi, 1995](#)). [Wekwete \(1994\)](#) also notes that construction of various infrastructures was a sign of permanence as the water and sewer reticulation infrastructure developed was non-transferable, thereby establishing Fort Salisbury. Categorically, the era which spans between 1890 and 1939, was the establishment phase of colonial domination where the settlers speculated about the investment opportunities around Salisbury, now Harare. [Rakodi \(1995\)](#) explicates that with higher mineral expectations, the settlers were frustrated by the scarce minerals found and therefore developed a permanent settlement directed towards manufacturing. The second phase noted by [Wekwete \(1994\)](#), between 1940 and 1952, was an era of Salisbury expansion and intensification. During the post-1945 epoch, Zimbabwe (then Southern Rhodesia) witnessed the development of its manufacturing industry and the government became supportive of the initiative. Hence, the manufacturing industry lured high urban expansion just as during the British industrial revolution experience. This led to the establishment of settler populated suburbs such as Malbereign based on the Radburn garden city concept and [Davison \(2002\)](#) also explains the expansion of accommodation into the subdivision of Mount Pleasant farms in order to accommodate the settlers.

The Federation epoch was another critical urban development era in Zimbabwe. It covered the period from 1953 to 1965 ([Munzwa and Jonga, 2010](#)). [Rakodi \(1995\)](#) notes that during the 1950s and early 1960s, there were government efforts to spread the benefits of the federation to Southern Rhodesia where encouraged the mining capital's diversification into manufacturing, foreign investment and large scale borrowing towards investing into the urban infrastructure. As the manufacturing sector

expanded, industry and finance sectors concentrated in Salisbury witnessed an increase in construction activity and the changing form of the central business district. There was a restricted market size for manufactured commodities and limited expansion of production. Federalism witnessed the channelling of financial resources into property development for commercial and financial institutions. This led to high property prices in the central business district, outstripping and outlasting those for residential and industrial land and buildings ([Rakodi, 1995](#)). In the now Harare, the end of the speculative boom was followed by the breakup of the federation.

The ushering in of the Unilateral Declaration of Independence (UDI) by Ian Smith (Former Prime Minister of Rhodesia, 1965-1979) saw the country facing international trade sanctions. Such developments ensued in a crisis of confidence, and led to the first collapse in land prices and a virtual halt to new private construction ([Rakodi, 1995](#)). This resulted in a turnaround in the construction of private infrastructure which was halted during the expansion of the urban centre. With a growing labour force to cater for the expanding manufacturing sector, and where industrialists faced increased costs of accommodating the indigenous workforce, there was a relaxation of the prohibition of home ownership and government encouragement to building societies to lend to the indigenous population ([Rakodi, 1995](#)). Thus, in terms of private housing during the federation era, the promulgation of the Building Societies Act in 1951 saw this period reaping gains as the demand for housing grew with the growing population in urban centres. It also witnessed the construction of several service delivery infrastructures such as the University of Zimbabwe, Harare and Mpilo Hospital among others. However, the urban development being discussed here refers to the settlers only, as indigenous people were not accommodated at this time in the non-African towns and were being absorbed only in partiality of labour force need ([Munzwa and Jonga, 2010](#)).

It must be stressed that during the UDI period, economic planning was based on an import substitution strategy and there were a lot of inward looking and introspective approaches to the overall development of Harare. [Wekwete \(1994\)](#) notes the legacy of controls, which attributes Zimbabwe today to this phase of economic development. He notes that Harare experienced the highest rate of increased housing stock due to vigorous stand development between 1965 and 1971. This witnessed the housing of indigenous people in what they called African townships around Harare and led to the outward expansion of Harare. Such remarkable urban expansion called for adequate urban service provision to keep pace with the increasing populations, for example, clean water provision, power, garbage collection and disposal, public transportation and other social services ([Chirisa, 2007](#); [Munzwa, and Jonga, 2010](#)).

Making a legislative adjustment, the land apportionment act was replaced by the land tenure act and this had several implications whereby indigenous peoples' housing areas were designated in what were considered to be European urban areas and attempts were made to concentrate indigenous people in these districts. [Rakodi \(1995\)](#) even highlights that after the 1969 census the number of indigenous urbanites exceeded those of settlers in the highlands area which led to the development of Mabvuku and Tafara to re-house the indigenous population and municipal regulations were passed forbidding employers to house non-employees. The mid 1970s witnessed an escalation of a struggle for independence, which led to an influx of refugees into the capital from the rural areas. Realizing this there was the enactment of a municipal transit camp at Musika near Mbare and thus Harare became

consolidated with both European and indigenous populations in an expansionary way as an urban hub with several employment opportunities.

The post-independence epoch (1980 to date) witnessed a vigorous de-racialization of the urban system as well as a huge influx of rural population into the city ([Munzwa and Jonga 2010](#); [Tibajjuka, 2005](#)). There was a move to de-racialize the urban system as well as facilitating free movement of the indigenous majority into the city hence pushing the notion of a one city concept. Realizing the lifting of urban movement control, there was a remarkable flow of rural population into the urban centres in search for better lives. [Wekwete \(1994\)](#) has noted that urban areas were very attractive as a result of a better social life and employment opportunities in comparison to rural life. This era witnessed the indigenous majority manipulating the urban space where residential development expanded to accommodate the rural migrants. Administratively, there was a replacement by the indigenous authorities of colonial local authorities, where in practice of their colonial correction era they overstayed their honeymoon ([Dube and Chirisa, 2012](#); [Chirisa, 2009](#)). Like other African cities, Harare became a city of people of all occupations calling for expanded infrastructure provision.

While the local authorities were celebrating independence, at the same time overstaying their honeymoon, Harare was catching fire over the failure of planning to cope with immigration. Little changes were embarked on as far as spatial planning is concerned thereby the population stressed the infrastructure which had been designed for a small population. Regardless of being unchained from colonial yokes, colonial legislation still governs the city's planning system. Hence the planning system failed to move to a people oriented planning approach and continued a draconic way of governing the city which initiates policies from above as opposed to policies from below. To adjust from the colonial system to a more rational system, the government of Zimbabwe overcompensated to the extent of getting into a situation of adjusting to fail and it imposed intense damages on city development.

Since there was an inheritance of a dualist economy, to address the colonial imbalances the government embarked on a socialist approach by adopting policies such as Growth with Equity of 1981, Transitional Development Plans and the First Five Year National Development Plans ([Dube and Chirisa, 2012](#)). This led to budget deficits of the Harare local authority, a situation which led to the council losing its borrowing capacity, failing to pay its own expenses thereby failing to adjust. To date, the city has been facing quite a number of challenges, more than ever before, and the critical challenge now is the culture adopted of pointing fingers at colonization and the much popularized economic sanctions rather than solving the deep seated problems of poor management approaches. This provokes the question of why government, when governance is the way to go? With difficulties in answering that it leads to a journey of endless problems that unveils the urban management system where there are doubts on whether to give planning another chance for trust building or not. Much blame has been given to the city management system as well as its planning instruments as noted in Box 1, but why the failure to adjustment? The results of the failure to adjust, which all literally led to adjusting to fail, has led to the loss of the city's treasures it had during its early years, which in turn has led to it being labelled a nostalgic sunshine city.

Most of the residents now live without hope of city regeneration from the shambles it has fallen into, where infrastructure has fallen apart in its

attempts to serve the massive urban population. This has led to insecurities in tenure; issues surrounding livelihood and even personal safety have caused residents to become reluctant to invest in participatory city planning as the management systems are non-accommodative to residents' participation.

Box 1: Harare city's management failure

- There is an imploration of Harare City Council to refine their management style in order to address the critical water supply situation.
- New approaches are required to meet the demands of the capital's growing population.
- The infrastructure of the city was designed to cater for one million people only; the city now houses over three million people.
- Poor management and planning by the City of Harare are largely to blame.
- By 1993, the service provision capacity of Harare was outstripped in the face of a growing population.
- Proper planning and finance are required.
- Prioritisation of service delivery and value for money to ratepayers are critical.
- The council is owed a lot of money by Government, other local authorities and ratepayers.

Source: [\(The Sunday Mail, 2013\)](#)

The period after independence witnessed a common abundance of urban challenges, which irked loudly for elastic intervention. Harare has become a quandary of environmental challenges, including pollution, degradation of resources and urban informality that has been termed ruralization of the urban ([Munzwa and Jonga, 2010](#)). Due to the huge influx of migrants into the city, Harare has been loosely accommodating the population sprawling into the seams of its boundaries ([Chirisa, 2008](#); [Munzwa and Jonga, 2010](#)). This has led to a situation similar to the American mistake of promoting suburbia, a concept that created cities that never worked with sustainability. Uncontrolled movement of the rural population to the urban areas witnessed the exacerbation of urban poverty where the residents, in search of survival, have lost stewardship of the city thereby leading to the degradation of the urban environments and abuse of urban infrastructure in an unchecked system. These hardships justify the increased rate in urban crime, the resorting of the "urbanites" to the ventures of the informal sector, and, in the case of housing, the manifestations of alternatives like multi-habitation, squatter camps and informal land subdivisions. In addition, there has been the remarkable challenge of ruralisation of the city because of poor service delivery ([Munzwa and Jonga, 2010](#)). This has led to the situation of urban residents becoming escapees to the urban periphery, which also creates another challenge of urban sprawl. In the process of ruralization, the urban residents have become multi-actors in their life being peasants or entrepreneurs, in a situation that has turned the urban syntax informal. [Shanoon, Kleniewski et al. \(2002\)](#) repose that urban poverty has not persisted but it has increased.

[Wekwete \(1992\)](#) points out that a poor management system of urban local authorities has left urban dwellers living in offensive conditions that are demeaning, demoralizing and debilitating. The city municipalities themselves carry a host of challenges from lack of transparency, corruption, general mismanagement, financial bankruptcy and an inability to develop and maintain existing infrastructure, as well as a failure to attract investment opportunities. The city is now experiencing challenges that aggravate both the rich and the poor, where a massive housing backlog persists and has led to several housing challenges, including from squatter expansion, to rampant traffic congestion which has been calling loud for planning intervention.

[Munzwa and Jonga \(2010\)](#) note how Harare is facing rapid population growth accompanied by de-industrialization, a combination of which forms an informal calamity. Trialling management system approaches, urban councils have been the leading figures demeaning governance. It is further stated that the serious shortage of finances has an impact on any reforms that may be adopted. The resuscitation of infrastructure and the provision of clean water and adequate housing largely depend on the availability of funds. The City Council is mandated to reform its financial systems in order to create more revenue and eradicate corruption and general financial mismanagement. The introduction of new forms of budgeting, like performance budgeting and participatory budgeting, may be of benefit to the communities and other stakeholders. Recently the involvement of the stakeholders and communities has been a good principle of good governance because the intended beneficiaries have become part of the decision-making ([Munzwa and Jonga, 2010](#)). In summary, Harare has become a hub of all sorts of problems that an urban centre can carry and the little efforts by the authorities to address them have been an exacerbating factor, pointing to the failings of the governance system.

3. PLANNING: THE PROMISE, THE BETRAYAL AND THE MISSING LINK IN HARARE

Overstaying their independence, the planning authorities caused an accumulation of urban problems over time. While local planning authorities took heed of planning for the people, they had lost the voice of their people and thereby neglected participatory planning approaches. While the independence afterward sought for colonial corrective measures of equality, they lost out due to a situation culminating in indigenous dualism, a failing planning system, centrism management approaches lacking residents' participation, and the consequence of planning being labelled a failure. Realizing the technocratic characteristic of planning as well as the political nature of urbanism, planning has become a facilitating arm of political practice.

In Harare, there has been no proper upholding of rights, liberty and equality within the planning system, hence the breach of the promise and social contract which calls for planning reform. It is therefore important to question, 'are the urban problems in Harare so extreme that the cities and towns need to change their rulers?' Then, 'would the new rulers do a better job in service delivery?' These questions are difficult to get specific answers to. What can be portrayed here is only the opinion that the politics, governance and institutional behaviours had terribly deteriorated in Harare.

On the same note, the economic meltdown of Zimbabwe rendered most of the councils un-creditworthy to both local and international financial institutions and this led to a fall in the borrowing power of urban councils in the hands of central government, jeopardizing service delivery and rational decision-making ([Jonga and Chirisa, 2009](#)).

3.1 Building confidence: giving planning another chance

Overall, urban finance, investment attraction, urban good governance and the political will to allow for urban reform and smart transformation are essential. Good governance is characterized as being "... participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and following the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making ([Keiner, Koll-Schretzenmayr, et al. 2006](#)). Its focus is "sustainability" where the present and future needs of society are treated as sine qua non ([Munzwa and Jonga, 2010](#)). One of the crucial elements of good governance is the collection, accountability and transparent management of public funds (municipality funds). Currently, because of political deterioration and the economic meltdown, almost every city is suffering from budget deficits or inadequate financial resources for development, general administration and infrastructure maintenance. For the city, to borrow from the city administrations, it has to be creditworthy. Creditworthiness is an attribute that is attained through the development of good financial management, like proper budgeting, control of funds, periodic accurate reporting, and properly written books of accounts, additionally urban councils as political institutions must tolerate diverse opinions. If these diverse political opinions and freedoms are suppressed, news beliefs and behaviours are hindered and it means the valves releasing pressure caused by change will tighten to the disadvantage of development agents in the urban communities. This has stifled visions for future developments ([Munzwa and Jonga, 2010](#)).

3.2 Learning from others as panacea

There have been rebuttals on whether to adopt the Western (European) models of urban development or the Eastern (Asian) models of urban development where the western models regard democratization as the basis of development whilst the eastern models regard democratization as a by-product of development. A comparative exploration gives an insight on the paths to follow towards gaining back planning lustre. For instance, in 2001 the Indonesian government introduced laws on decentralization and regional autonomy that led to a shift in service delivery. Changes in municipal management such as modifying planning, programming, budgeting and financial management procedures have helped local government become more responsive, participative, transparent and accountable to citizen's needs. This process has been supported by the UNDP's Breakthrough Urban Initiatives for Local Development (BUILD) programme. Ten core guiding principles for good local governance were established (participation, rule of law, transparency, equality, vision, accountability, supervision, efficiency and professionalism) which were later adopted by the Association of Municipalities at their annual meeting. During the meeting, participants

agreed that “the welfare of the people constitutes the most important objective for achieving sustainable development, to bring relief to those in poverty, who are disempowered, and who are dispossessed socially” ([UNHABITAT, 2009:17](#)).

4. THE WAY FORWARD

It is clear that for Harare to remain financially solvent and bring back its glamour, there is the need to change its development patterns and the way the city is being governed. As we near the expiry of the Millennium Development Goals (MGDs)¹ in 2015, the verity that poverty and financial crisis in Harare need to be arrested cannot be overlooked. Calls for finding new ways of spatial urban planning in a sustainable form remain the only option. The city of Harare needs to take a leading role making Harare one of the best cities in the region and the world at large. The city needs to sustain the pressure stemming from the current global financial crisis, which has paralyzed market solutions to many urban problems around the world. Harare has to acclimatize more still with the reality of urbanization and its physical manifestations which are often complex and require collaborative and participatory approaches.

The challenges of practicing good governance remain a huge task in Harare. As such, there is a need of spatial policies that can curtail the wrath of the city through a comprehensive and collaborative approach to planning. There is need for a paradigm shift on the part of the Local Authority that is in the way that they operate their day-to-day activities. With the influx of modern day technology, the local authority needs to have an up-to-date database that monitors the day-to-day activities of the city. This will go a long way in monitoring new players in the city that are free riding when in fact the city is not free.

As supported by, [Dube and Chirisa \(2012\)](#) in order to improve service delivery in the city, there is a need to espouse the following suggestions:

- the enhancement of community participation in decision making at all stages, encouraging a sense of ownership,
- public awareness in the process of urban management,
- coordination between national plans and local plans,
- integration of urban and economic planning, enshrining Agenda 21 in Urban Planning and Management

As put succinctly by [Brown \(2006\)](#), good governance is a source from which all rivers flow; good governance needs to combine economic policies that support city prosperity with good social policies. It is time for those who can make an authentic difference, that is, government, international financial institutions, the donor community, development activists and the millions who are all annoyed by the state of the city but silent, to step up to meet this challenge and to execute the progress of the city.

In addition, development planning, whether national or international has traditionally been gender neutral or even gender blind. As a result, there has been a tendency to marginalize women: development planners have often seen them only as passive beneficiaries of social and health services. However, planners must realize that development goals will only be reached by securing active involvement of women and by bringing women into the mainstream of economic development so that gender plays its own important role in the process. Gender divisions are not fixed biologically, but constitute an aspect of wider social division of labour and this, in turn, is rooted in the

conditions of production and reproduction and reinforced by the cultural, religious and ideological systems prevailing in a society. Action orientation and reorientation in gender analysis is required in many developing countries as they are sometimes culturally and religiously embedded in anti-gender balance theses.

5. CONCLUSION

The preceding paragraphs have highlighted the challenges and possible ways the city of Harare has to take in order to create a sustainable city. The historical and contemporary state of the city in question has formed the backbone of the paper. A close look at the city after 1980 shows that the city of Harare has been subjected to much bickering, contestations and intergovernmental impositions of policy, hence policy from above as opposed to policy from below has been imposed. This is largely explained by the central government's hard and fast wrenching control in directing the affairs of the city hence negating the role of the residents' needs and wants. As the levels of poverty in Harare continues, coupled with unemployment and poor service delivery, the country cannot afford to turn its back on the poor and the vulnerable. There is a need to strengthen cooperation and solidarity at a city level and redoubling stakeholders' efforts to reach poverty free Harare and advance the broader development agenda. The viability of the city is at stake and national policymakers and all stakeholders should take heed the message of this valuable and timely analogue in development planning. The structural transformation of Harare's functions, with a view to ensure efficient and cost effective delivery is all the city can do now. There is also a need for various stakeholders involved in the revitalization of the city to have a shared vision, commitment at all levels, regular monitoring and evaluation, a customer-oriented culture and all backed by the provision of adequate and appropriate resources and the right leadership.

REFERENCES

- Brown A. (ed.) (2006). *The contested Space: Street trading, public space and livelihoods in developing countries*, ITDG Cardiff University.
- Chirisa, I. (2007) "Post-2005 Harare: A Case of the Informal Sector and Street Vending Resilience. What options do key players have?", *Local Governance and Development Journal*, Vol. 1. Harare: Municipal Development Partnership –MDP.
- Chirisa, I. (2008). "Population Growth and Rapid Urbanization in Africa: Implications for Sustainability". *Journal of Sustainable Development in Africa*, 10(2).
- Chirisa, I. (2009). "Informality, deceit and the conscience: A survey on ethical dilemmas in Harare". *Journal of Sustainable Development in Africa*, 11(2), 257-280.
- Chirisa, I. (2012). "African local governments and the MDGS: Constraints and policy alternatives". *Global Advanced Research Journal of Peace, Gender and Development Studies*, 1(1), 01-011.
- Davison, C. (2002). "An Evaluation of Existing Residential Layout Design Approaches in Zimbabwe and the Suggestions for alternative Approaches".. *Urban Forum*, 13, 187-204.
- Dube, D., and Chirisa, I. (2012). "The Informal City: Assessing its Scope, Variants and Direction in Harare, Zimbabwe". *Global Advanced Research Journal of Geography and Regional Planning*, 1(1), 016-025.
- Eigen, P. (2005). *Empowering citizens to work towards a world free of corruption*. Harare: Transparency International.
- Ijagbemi, B. (2003). "Perspectives On African Urbanism: "New Methodologies" Beyond a baseline survey: development of a sampling technique for an urbanization study in Africa". *Journal of Political Ecology*, 10, 51-61.

- Jonga, W., and Chirisa, I. (2009). "Urban Local Governance In The Crucible: Empirical Overtones Of Central Government Meddling In Local Urban Councils Affairs In Zimbabwe". *Theoretical and Empirical Researches in Urban Management*, 3(12), 166-182.
- Keiner, M., Koll-Schretzenmayr, M., and Schmid, W. A. (2006). *Managing Urban Futures*. Hampshire: Ashgate Publishing Company.
- Knebel, N., and Kolhatkar, M. (2009). "The Dilemma Of Urban Governance In Africa Between Western And Eastern Development Models: A Case Study From Addis Ababa". Paper presented at the International Conference City Futures'09, Madrid.
- Magnusson, W. (2006) "Bourgeois Theories of Local Government". *Political Studies*, 34, 1-18).
- Mhlahlo, S. R. (2007). "Assessment of Urban Governance in Zimbabwe: Case of the City of Gweru". *Eastern Africa Social Science Research Review*, 23(1), 107-128.
- Munzwa, K. M., and Jonga, W. (2010). "Urban Development in Zimbabwe, A Human Settlement Perspective". *Theoretical and Empirical Researches in Urban Management*, 5(14), 120-146.
- Rakodi, C. (1995). *Harare: Inheriting a colonial city: Change or continuity?* Sussex: John Wiley and Sons.
- Rondenelli, D. (1990). *Decentralising urban development programme framework for analysing policy*. Washington D.C.: Agency for International Development.
- Shanon, R. T., Kleniewski, N., and Cross, W. M. (2002). *Urban Problems in Sociological Perspective*. Long Grove: Waveland Press, Inc.
- Simone, A. (2002). *Principles and Realities of Urban Governance in Africa*. Nairobi: UN-HABITAT Global Campaign on Urban Governance.
- The Sunday Mail (2013). "Harare should improve management skills", The Sunday Mail, Zimpapers, 10th February 2013.
- Tibaijuka AK, (2005). *Report of the Fact-Finding Mission to Zimbabwe to assess the Scope and Impact of Operation Murambatsvina*. UNHABITAT. Nairobi, Kenya. UNHABITAT (2009), *Planning Sustainable Cities: Global Report on Human Settlements 2009*. UNHABITAT. Nairobi, Kenya.
- Viana, D. (2009). "African City: towards a new paradigm – "chameleonic" urbanism for hybrid cities". Paper presented at the International Conference on African Perspectives: The African Inner City: [Re]sourced, University of Pretoria.
- Wekwete, K. H. (1992) "New Directions for Urban Development and Management in Zimbabwe in Rapidly Urbanising Countries. The Case of Zimbabwe". *Habitat International*, 16, 53-63. London: Pergamon Press Ltd.
- Wekwete, K. H. (1994). "Urbanisation, Urban Development and Management in Zimbabwe". In K. H. Wekwete and C. O. Rambanepasi (Eds.), *Planning Urban Economies in Southern and Eastern Africa*. Avebury: Belmont.

Review on Main Characteristic of Historical City as an Urban Design Alternative: A case study in Cakranegara City, Indonesia

Lalu Mulyadi^{1*}

1 Department of Achitecture, Faculty of Civil Engineering and Planning, National Institute of Technology (ITN)

** Corresponding Author, Email: lalu_mulyadi@yahoo.com*

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Abstract: The main problem of conserving old Indonesian cities is how their changes are still accepted without eliminating their main characteristics. Cakranegara is one of the old cities in which its main characteristic should be known. The grid-designed pattern of Cakranegara is an architecturally beautiful Hindu Balinese pattern with its own unique identity. The study of the main characteristic of Cakranegara was done by matching the basic principle of the social culture and religious beliefs with the empirical field data. The research adopted four methods: questionnaire, cognitive mapping, interview, and visual observations. The data of the questionnaires was analyzed by descriptive statistics, while the data of the cognitive mapping, interviews, and visual observations were analyzed qualitatively. The next was then the assessment of the design of settlement blocks, the crossroads, the urban design, the spatial orientation and hierarchy by triangulation process. Thus, the basic principle of the social culture and the religion results in the realization of the main characteristic of the historical city of Cakranegara.

1. INTRODUCTION

Urban design existing in Indonesia nowadays is still focused on the same forms; as a result, no more attention is given to urban design based on the variety of the social cultures. An example of this is the administrative boundaries among districts as units of the urban designs of which the socio-cultural aspects are then neglected ([Samadhi, 2004](#)).

[Wiryomartono \(1995\)](#) and [Samadhi \(2004\)](#) state that there are urban areas like *Nagari* in Padang, *Gampong* in Aceh, and *Desa Adat* in Bali having valuable social cultures, which have a close relationship with the realization of the area's values. Therefore, the building and development of historical cities should consider the character of their valuable social and cultural aspects. [Hermanislamet \(1999\)](#) states that research should be conducted towards the old historical Indonesian cities and social cultures of high values because they provide theoretical concepts as references to build urban areas.

Cakranegara, one of the old Indonesian historical cities in Lombok-East Indonesia, has a spatial specification and unique social cultures. According to [Funo \(1995\)](#), Cakranegara is a city having a grid pattern which is built in the form of settlement blocks called *Karang*. [Handinoto \(2000\)](#) says that Cakranegara is one sample of old cities which is designed based on

cosmology and has morphology as well as a specific social culture. The question is, then, how can the basic principle of the social culture and the religion provide the main characteristic of the historical city of Cakranegara?

2. CONTRIBUTION

The purpose of this study is to provide a new architectural and urban design theory, especially dealing with the spatial theory. It will be useful for the local government as a reference for planning and formulating the conservation of Cakranegara city. For Indonesian urban designers, the theory will become an inspiration to develop existing cities and an international reference for grids from Indonesia. For future researchers, the analysis frame of the study can be one of the alternative models for the same kind of studies either in Indonesia or in other countries.

3. THE HISTORY OF CAKRANEGARA CITY

Cakranegara was founded historically in a long process in Bali from the beginning of the existence of the *Gel-Gel* kingdoms. In the 15th century, the *Gel-Gel* regime colonized Lombok, Sumbawa, and Blambangan (East Java) reigned by *Dalem Watu Renggong*. After his death, his reign was moved to Karangasem at the northern part of the *Gel-Gel* kingdoms. The height of his glory ended after the fourth king of Karangasem. One of his princes, I Gusti Anglurah Ketut Karangasem, enlarged his colony to Lombok (Cakranegara) around 1692. [De Graaf \(1941\)](#) thought that the ruin of *Gel-Gel* coincided with the colony of Karangasem to the island of Lombok. The conquer of Karangasem Bali over Lombok was due to the unpleasant political situation between two powerful kingdoms in Lombok, Selaparang in East Lombok and Pejanggik in Central Lombok.

Kings Karangasem took this opportunity to conquer the island of Lombok and to found the small kingdoms in west Lombok like: Kediri, Sengkongo, Pagutan, Pagesangan, Mataram and Singasari. After Lombok was conquered from 1692 to 1740, at the site that was called Singasari, now called Cakranegara meaning a settlement city in a rounded shape; *Cakra* means 'circle' in Sanskrit and *negara* means city, settlement, or country ([Agung, 1992](#)).

4. THEORETICAL BACKGROUND

4.1 The Basic Principles of the Social and Religious Cultures of the Balinese Hinduism

4.1.1 The principle of Asta Dikpalaka

[Munandar \(2005\)](#) states that Hindu civilization in the names of the gods who occupy the throne on the eight directions of the compass are called *Asta Dikpalaka*. *Asta Dikpalaka*, who in myth are said to surround Mount Mahameru. From Mount Mahameru its aspects are: the north - *dewa Kumera*, the northeast - *dewa Isana/Candra*, the east - *dewa Indra*, the southeast - *dewa Agni*, the south - *dewa Yama*, the southwest - *dewa Nirtti/Surya*, the west - *dewa Waruma*, and the northwest - *dewa Wayu*.

The eight gods of *Asta Dikpalaka* are worshiped as *dewa Kuwera* who is the god of prosperity who guards the north of the compass, *dewa Isana* is the other name of *dewa Syiwa* who guards the northeast of the compass, *Isana* or *dewa Syiwa* who is the god of mortality who is the highest god in *Trimurti*, *dewa Indra* who was worshiped as the god of war in the *Weda* era and is considered as the king of the gods who guards the east compass, *dewa Agni* who is worshiped as the god of fire who guards the southeast compass, *dewa Yama* who is the god of mortality who guards the south compass and, *dewa Surya* who is the god of the sun. The position of *dewa Surya* in the southwest compass is reflected by *dewa Nirtti* (the god of grief). When the corner of the southwest is guarded by *dewa Surya*, the corner of the northeast is guarded by *Chandra (Soma)*; but when the southwest is guarded by *dewa Nirtti*, the northeast is guarded by *Isana*. *Dewa Waruna* who is worshiped as the god of the sea who guards the west, and *dewa Wayu* is worshiped as the god of the wind who guards the northwest of the compass.

4.1.2 The principle of *Rwa Bhinneda*

The universe is created in balance systematically. There is a basic principle to maintaining balance in the system, that is, the concept of being in couples. [Aminuddin \(1999\)](#) says that there would not be any meaningful life if there were just one species occupying the universe and dominating this cosmos. That is the reason God has created human beings and other creatures living in couples naturally. This concept makes the universe with its life perfect and beautiful. According to [Aminuddin \(1999\)](#), the first harmonious couple is a man and woman as spouses. The second couple is of the organs of a body in pairs like, the eyes, the feet, and the hands. The third thing is of life: rich-poor, righteousness-evil, and mortality-immortality. The fourth thing is of physical nature: the land-the sea, the highs-the lows, the rain-the hot, and the day-the night.

The couple system stated by [Aminuddin \(1999\)](#) has the same significance as binary opposition written by [Levi-Strauss \(1969\)](#) in Totemism. He defines the coupling of different sexes as a method to analyze the social phenomena whose way of thinking comes from the human classification of the environmental world. [Levi-Strauss \(1969\)](#) has the same opinion about classification based on different characteristics.

Hindu people in Bali, for example, think that the couple system in the universe is a consistent order of the cosmos. They are oriented in a balance and keep the harmonious relation between the universe as *macro-cosmos* and the human beings as *micro-cosmos*. This order is based on the philosophy of reconciliation of the two poles, of which the values are different, but tied in relation, either, among the objects, man with objects or man with other living things as well as man with his God ([Rahardjo \(1989\)](#); [Budihardjo \(1991\)](#)).

The philosophy of reconciliation has significance related to the social belief of Bali Hinduism to God, the Almighty ([Pidarta \(2000\)](#); [Sudharta and Atmaja \(2005\)](#)); [Suwena \(2003\)](#) says that the philosophy of reconciliation for the Balinese Hinduism is called the principle of *Rwa Bhinneda*. *Rwa* means two and *Bhinneda* means different. The principle of *Rwa Bhinneda* is reflected in the orientation order: the mountain-the sea, dirty-clean, *luan-teben*, *sekala-niskala*, and sacred-profane ([Parimin \(1986\)](#); [Gelebet \(1986\)](#); [Widana \(2002\)](#)).

[Parimin \(1986\)](#), [Mantra \(1988\)](#), [Budihardjo \(1991\)](#), and [Widana \(2002\)](#) state that the implementation of *Rwa Bhinneda* principles into spatial orientation is the sacred directioning of a mountain that is centered with an

orientation of high value and genesis. On the other hand, things which are not sacred are directed to the sea. The sea comprises bad values and, therefore, it connotes dirty things. According to [Parimin \(1986\)](#), [Gelebet \(1986\)](#), [Budihardjo \(1991\)](#), [Samadhi \(2001\)](#), [Geriya \(2004\)](#), and [Eiseman \(2005\)](#), binary opposition is physically implemented in the spatial pattern of a city, village, settlement, or house yard. Ardi shows the *Puseh* temple and *Desa* temple are situated towards the mountain; whereas the *Dalem* temple (the temple related to mortality and graveyards) are situated towards the sea.

4.1.3 The principle of Sekala - niskala

Sekala is a visible object, whereas *niskala* is an invisible one. Both are supernatural. Balinese Hinduism thinks that the invisible objects belonging to the supernatural are realized as real objects in order that man is directly able to contact with them ([Suparman \(2003\)](#); [Soeka \(2004\)](#)). Furthermore, [Suparman \(2003\)](#) adds that the temple is a place for worship to God that is a *sekala*, that is, a reflection of *niskala*. [Eiseman \(2005\)](#) states that dances (*sekala*), which are acted out in Balinese Hinduism, are the symbols of invisible powers (*niskala*).

[Suparman \(2003\)](#) and [Soeka \(2004\)](#) state that the highest power in the universe is just God. The power of God is classified into three kinds: the power to create, to care for, and to return to Him. Basically, God is unseen and untouchable. Balinese Hinduism is anxious to be able to contact directly with God in God's real form (*sekala*). Therefore, they reflect God's character in the form of *dewa* (God). God creates *dewa* from the light and becomes his envoy ([Puja \(1985\)](#)). The purpose of transforming God to be real (*sekala*) is to make it easy to relate their thoughts to God.

According to the people of Balinese Hinduism, there are three kinds of *dewa* named after *Tri Murti*: *dewa Brahma*, *dewa Wisnu*, and *dewa Syiwa*. *Dewa* is immortal and has different tasks from other creatures. According to [Suparman \(2003\)](#) and [Soeka \(2004\)](#), the three *dewas* are uttered in one word, that is *AUM*. "A" means *Agni* (fire, the symbol of *Brahma*), "U" means *Uddaka* (water, the symbol of *Wisnu*), and "M" means *Maruta* (wind, the symbol of *Syiwa*). The tasks of the three *dewas* are: *Dewa Brahma* creates all creatures in the universe. He is given a throne in the form of *sekala* (*Desa* temple). *Dewa Wisnu* is the transformation of the power of God whose task is to maintain the universe with regard to human welfare, happiness, the life of animals, and plants; his throne is *Puseh* temple. *Dewa Syiwa* is the transformation of the power of God whose task is to return all the shapes to their origins. *Dewa Syiwa* has the power of life duration to end all the life of growth and creatures., he is given a throne in the form of *sekala* (*Dalem* temple).

4.1.4 The principle of tri Hita Kharana

Tri Hita Kharana comes from three words. *Tri* means three; *Hita* means righteousness; and *Kharana* means source, so the *Tri Hita Kharana* consists of the righteousness. *Tri Hita Kharana* has the teaching of philosophy about adaptable and harmonious living in all aspects of life. According to [Monografi \(1985\)](#), [Kaler \(1994\)](#), and [Putra in Atmaja \(2003\)](#), the three sources provide the relationship between human beings with their God, among the humans and the humans with their environment.

According to [Gelebet \(1986\)](#), the three elements of *Tri Hita Kharana* are *atma*, *khaya*, and *angga* (soul/spirit, energy, and physical/body). [Dharmayudha and Cantika \(1999\)](#) say that the *Tri Hita Kharana* are *atman*,

prana, and *sarira* (Table 1). The three points as the source of life are soul/spirit, energy, and physical/body. Man with his life can take an important, high role in his life if his life is in balance. According to [Patra \(1992\)](#), [Gorda \(1996\)](#), [Atmaja \(1999\)](#), and [Samadhi \(2001\)](#), spatial patterns adopting the principle of *Tri Hita Kharana* can be seen in the form of *Parahyangan*, that is, the site of worship for the spirit. *Pawongan* is when the people living in an area are an energy, and *Palemahan* is the territorial form which functions physically.

Table 1. The Elements of Tri Hita Kharana

Tri Hita Kharana	SOUL/SPIRIT (<i>atma</i>)	ENERGY (<i>prana</i>)	PHYSICAL/BODY (<i>sarira</i>)
Universe	<i>Paraatman</i>	Power to move the universe, e.g. planetary movement	<i>Panca Maha Bhuta</i> elements
City/village/ <i>desa adat</i>	<i>Tri Kahyangan or Parahyangan</i>	<i>Sima karma or Pawongan or</i> dwellers/villagers and their activities	<i>Palemahan or</i> settlement/village territory
House	House temple	House dwellers	Dwelling unit with its yards
Human being	Soul/spirit	Energy	Physical/Body

(Source: [Gelebet \(1986\)](#); [Dharmayudha and Cantika \(1999\)](#); [Patra \(1992\)](#); [Gorda \(1996\)](#); [Atmaja \(1999\)](#); and [Samadhi \(2001\)](#))

4.1.5 The principle of Tri Angga, Tri Mandala, Tri Loka

Basic philosophical culture and religion are the source of the rules of *Tri Angga*, *Tri Mandala*, and *Tri Loka*. *Tri Angga* means three levels of values in an object; *Tri Mandala* means three levels of values in a space; and *Tri Loka* means three levels of values in the universe. All of these values are termed *utama*, *madya*, *nista*. When three levels of value are applied to the universe, they are the atmosphere (*Shuahloka*), the lithosphere (*Bhuahloka*), and the hydrosphere (*Bhurloka*). On Earth, they are mountain, continent, and sea. In cities, they are temples, settlement area, and graveyard. For human beings, they are head, body, and legs ([Samadhi \(2004\)](#)). When the terms *utama*, *madya*, *nista* are used in an area, there will be three spacious values called *Tri Mandala*. *Tri* means three; *Mandala* means square or space ([Atmaja \(2003\)](#)). When studied more deeply, the principle of *Tri Mandala* is the development of *Rwa Bhinneda*, that is, the existence of the east, the west and the mountains and the sea ([Parimin \(1986\)](#); [Budihardjo \(1991\)](#)). If two kinds of power are exposed, there will be a value in between called *madya*.

5. METHODOLOGY

The methodology adopted to describe the content of the article is based on the relevant study. According to [Shuhana \(1997\)](#), there are two main kinds of methodology in conducting a research about historical urban areas, qualitative and quantitative methodologies. Quantitative methodology uses the questionnaire method, whereas qualitative methodology is based on a field study. According to [Festinger and Katz \(1953\)](#), the difference of both methodologies is in the evaluation. The questionnaire method is broader whereas the field study method is more complete. The adoption of both methodologies will result in more accurate information.

[Shuhana \(1997\)](#) adds that the study of a historical urban area cannot be conducted just by adopting one certain methodology for its specific characteristics. [Bell and Greene \(1990\)](#) assert that an urban study should be

conducted by various kinds of method, and then triangulated to find the more accurate result.

Both methodologies are the basic methods in this study of Cakranegara, the historical city. The use of the quantitative method involves the people's evaluation of the environment of the city ([Salim \(1992\)](#); [Shuhana \(1997\)](#)). [Banerjee and Southworth \(ed.\) \(1990\)](#) suggest the people's experience about an environment are very useful for the researcher because they know the real situation thoroughly. Therefore, the findings of the analyzed questionnaire can represent a large number of the population, enabling this method to be used as the fundamentals of a qualitative method.

5.1 The Procedure of Data Collecting

5.1.1 Questionnaire technique

The distribution of the questionnaire was done by simple random sampling distributed to the blocks of the homogeneous settlement dwellers. [Sugiyono \(2009\)](#) supports this method. There were 330 respondents taken as the sample with validity of 95% and correction 5.5%. The number is based on the assumption and the validity by [De Vaus \(1991\)](#).

5.1.2 Cognitive Mapping Technique

Data collecting by cognitive mapping was carried out in the Cakranegara area involving 30 respondents. This was based on [Shuhana \(1997\)](#) and [Shuhana and Ahmad \(1999\)](#). The 30 respondents consisted of the dwellers being studied and were selected based on purposely sample.

They were interviewed about the elements they remembered dealing with in Cakranegara city. The elements are considered important because they have specific values, significant and outstanding, to be compared to the other elements.

5.1.3 The Technique of Interview

Data collecting by interview of the residents of Cakranegara uses a list of questions referring to the objective of the research. The respondents are classified based on their levels of education, values, norms, custom rules, and their implementation in life involving the leader of each social element.

There are 30 respondents as purposely sample. According to [Walker \(1985\)](#), 20 to 30 respondents are adequate to conduct qualitative and quantitative studies.

5.1.4 The Visual Observation Technique

In visual observation activities, the researcher is just an independent observer meaning that the observer is free to observe, examine and do the measure. According to [Spreiregen \(1965\)](#), a visual observation activity is very good to know the composition, the city shape and to evaluate the potentials and the shortcomings of a city. [Shuhana and Ahmad \(1992\)](#) say that the use of technical observation to conduct a research of a historical city area has advantages especially on the effectiveness to describe the city/town thoroughly. [Shuhana and Ahmad \(2002\)](#) add that the thorough evaluation of the physical character of a city can be obtained by a visual observation and recording of the physical elements of the city. The recording of the

standardized physical city elements is important to know the design of the city.

5.2 The Procedure of Data Analysis

Empirical data were collected adopting four methods, namely questionnaire, cognitive mapping, interview, and visual observation, by the researcher. The questionnaire data is analyzed statistically, while cognitive mapping data, interview, and visual observation are analyzed qualitatively, then they will be triangulated. The findings of the triangulation analysis will be matched with the described theories according to the theoretical background, so that the main characteristic of the historical Cakranegara city will be discovered.

6. THE RESULT AND THE DISCUSSION

6.1 The Settlement Blocks

The respondents of the questionnaire from Cakranegara were 268 individuals, (81.2%) Hindu, 50 (15.2%) Muslim, 4 (1.2%) Buddhist, and 8 (2.4%) Christian.

According to [Wacana \(1988\)](#), [Zakaria \(1998\)](#), and [Djelenga \(2001\)](#), the blocks dwelt in by the Hindu community have been continuously existing since the seventeenth century (from the year 1692, to be precise), when the area was ruled by the Balinese Hindu kingdom of Karangasem.

The result of the observation of Cakranegara is 36 settlement blocks, which include 33 blocks dwelt in by the Hindu community in the center of the city, two blocks by the Muslim community on the southeast corner, and one block of vacant land on the southwest corner. The result of the interview with the local community found that the main sources of community income were entrepreneurship and civil servantry. The Muslim community, which inhabits the southeast corner block, comes from a long line of skin cracker producers.

The result of the observation on one block of settlement units was that they stretch in a north-south direction, and their gates face either to the east or to the west. Based on the measurement conducted by the researcher, each of the settlement units occupies a square area of, on average, 729 m², or 27 meters on each side. The length of the road on each side of a block is 27 meters, and the length of each road that divides blocks into settlement units is 9 meters. According to [Funo \(1995\)](#) and the local community, the settlement unit in one block is divided in some levels. The smallest level, with 20 settlement units, are called *marga*. The medium level, with 40 settlement units, are called *kriang*, and the largest level, with 80 settlement units are called *karang* (*Figure 1b*).

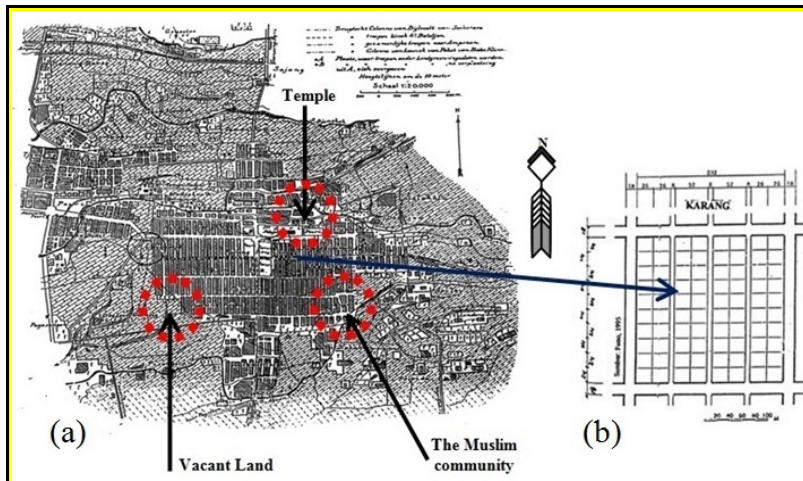


Figure 1. (a) Cakranegara City Map and (b) Settlement Blocks
(Source: (a) Cool (1896); (b) Funo (1995))

The findings, when matched between the principal of *Asta Dikpalaka*, with the positions and functions of the settlement block in Cakranegara city, will surely show that the settlement blocks adopt the principal of *Asta Dikpalaka*. The empirical evidence is that, first, in the northeastern corner is the position of the worship block which is in accordance with the position of *dewa Isana*, which is the other name of *dewa Syiwa*. Second, at the southeast corner is the block of the Muslim community whose profession is as skin cracker producers. This is in accordance with the position of *dewa Agni* (*Agni* is fire). Fire is the main utensil to fry skin cracker. Third, at the northwest corner is the position of the block of vacant land which is in accordance with *dewa Nirtti*. *Nirtti* is the god of grief; therefore constructing settlement buildings is not allowed (Figure 1a).

6.2 The Crossroads

The result of the questionnaire regarding the crossroads in Cakranegara city is that 238 respondents (84.80%) out of 330 were able to explain that one of the characteristics of Cakranegara is the presence of a lot of crossroads, public temples, and settlement blocks (Table 2). The result of the cognitive mapping is that 28 respondents (93.3%) out of 30 could draw crossroads very well and clearly (Table 3). The resulting interview with the local community was that 30 respondents (100%) out of 30 revealed that Cakranegara has a lot of crossroads. Meanwhile, visual observation by the researcher registers two types of crossroads, that is, the crossroad located in the center of the city and crossroads located in settlement blocks. The crossroads at the center of the city, called *pempatan agung*, serve to accommodate city-wide and social-cultural activities and religious rituals. As for the crossroads located in settlement blocks, called *pempatan madya*, they function as the center of neighborhood-wide and social-cultural activities and religious rituals.

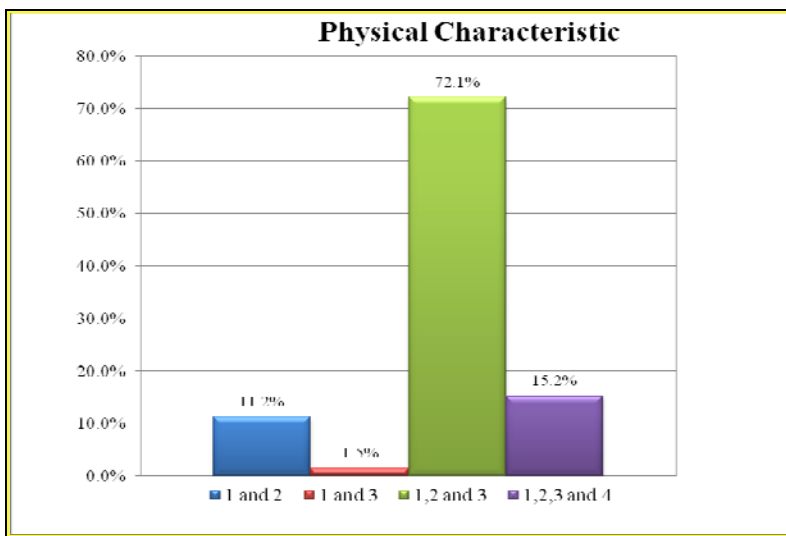
Prior to the processions of religious rituals, *tawur agung* in particular, offerings are arranged at the crossroad. According to Eiseman (2005), participants arrange the offerings as follows: black cloth and four sticks of *sate* (grilled chicken) are set in the north, offered to *dewa Wisnu*, to symbolize *kaja* or *apah*; red cloth and nine sticks of *sate* are set in the south, offered to *dewa Brahma*, to symbolize *kelod* or *teja*; white cloth and five sticks of *sate* are set in the east, offered to *dewa Iswara*, to symbolize *kangin* or *bayu*; yellow cloth and seven sticks of *sate* are offered to *dewa*

Mahadewa, to symbolize *kauh* or *pratiwi*; and gray cloth and eight sticks of *sate* are set at the center, offered to *dewa Syiwa*, to symbolize *puseh* or *akasa* (Figure 2a). Interviews with religious leaders reveal that north is the region guarded by *dewa Wisnu*, south by *dewa Brahma*, east by *dewa Iswara*, west by *dewa Mahadewa*, and center *dewa Syiwa*.

Table 2. Respondents Perception of Physical Characteristics Cakranegara City

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 and 2	37	11.2	11.2
	1 and 3	5	1.5	12.7
	1,2 and 3	238	72.1	84.8
	1,2,3 and 4	50	15.2	100.0
	Total	330	100.0	100.0
Total	330	100.0		

(Source: Mulyadi, L. (2008))



Legend:

1. Crossroads
2. Temples (*Meru, Mayura, and Dalam*)
3. Settlement Blocks
4. Others

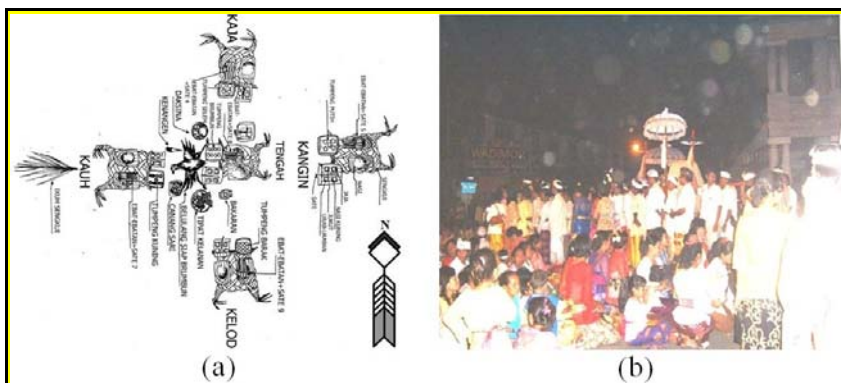


Figure 2. (a) Formation of Spatial Arrangement of Offerings at the Crossroad
 (b) The Ritual Conditions of Tawur Agung

(Source: (a) Eiseman (2005); (b) Mulyadi (2008))

The findings, when the principle of *Panca Brahma* and the arrangement of the traditional feast are matched, and on certain crossroads, religious rituals are carried out (Figure 2b); so it will surely be found that crossroads

in Cakranegara city adopt the principal of *Panca Brahma*. The empiric evidence is that, when the traditional feast is prepared for the gods before a religious ritual, it is held at a crossroad.

6.3 The City Structures

The result of the visual observation by the researcher reveals that in terms of width there are four types of road in Cakranegara. First, the East-West roads (*Selaparang* and *Pejanggik* streets) are 45 meters wide. Second, the North-South roads (*Sultan Hasanuddin* and *Anak Agung Gede Ngurah* streets) are 36 meters wide. The North-South roads and East-West roads intersect as a crossroad that, according to [Funo \(1995\)](#), [Handinoto \(2000\)](#), and [Mulyadi \(2008\)](#), the local community calls *Marga Sanga*. Third, the roads that divide the settlement blocks into squares are 27 meters wide. These roads are called *Marga Dasa*. Fourth, the roads that divide the settlement blocks into rectangular sub-blocks are 9 meters wide. These roads are called *Marga* (*Figure 4*).

The result of the interview with the local community reveals that roads in this city serve to accommodate social-cultural activities and religious ceremonies, which include funeral ceremonies (*Figure 3.b*), and *mendak tirta* (*Figure 3.a*), a ritual ceremony for the taking of sacred water.



Figure 3. (a) The Mendak Tirta Ceremony and (b) The Funeral Ceremony
(Source: [Mulyadi \(2008\)](#))

The result of the cognitive mapping of Cakranegara is that 29 respondents (69.7%) were able to sketch the cognitive maps of the 45 meter-wide roads, 24 respondents (80.0 %) the 27 meter-wide roads, and 14 respondents (46.7 %) the 9 meter-wide roads (*Table 3*).

According to [Funo \(1995\)](#), the grid pattern is used because of the need to divide settlement blocks called *Karang* (*Figure 1b*). The result of the interview with the local community in general reveals that the formation of the grid pattern is related to the demand to hold social activities and religious ritual ceremonies. As for the interviews with religious leaders, they reveal that the formation of the grid pattern is inseparable from the presence of crossroads, which are necessary for the Hindu community in Cakranegara because the community believes that it is in the crossroads that the power to protect an area emerge. This is in accordance with the argument shared by [Budihardjo \(1991\)](#); [Hermanislamet \(1999\)](#); and [Eiseman \(2005\)](#), that the crossroads of Hindu cities in Indonesia are sacral spots.

The findings, when matched with the principles of *Panca Brahma* and city structures, show that there will be means by which the structure of Cakranegara city adopts a grid pattern (*Figure 4*). The information related to the grid pattern found, first, the importance of a place to accommodate the social and ritual religious activities, such as the *yadnya* ritual (*Figures 3a* and *3b*), second, that in 1692 the Masehi, the immigrants who came to Bali

Island in groups from their native region, accommodated themselves in one block of settlement, and third, the belief of *niskala* power at each crossroad will provide the defense for the castle of Cakranegara city.

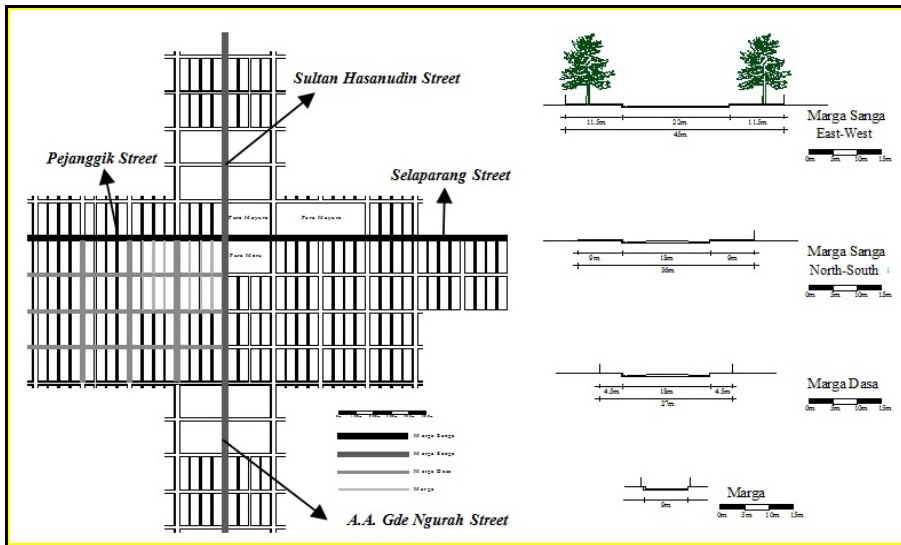


Figure 4. Street System
(Source: Mulyadi (2008))

Table 3. Elements of the Sketches Respondents

Sketch of elements	Frequency	Responden Total	Valid Percent
Building	Meru temple	30	100.0
	Mayura temple	30	100.0
	Dalem temple	28	93.3
	Melanting temple	9	30.0
	Market of Cakranegara	28	93.3
	Market of Sindu	7	23.3
	Mataram Mall	28	93.3
	MGM Mall	27	90.0
	Mosque	6	20.0
	Crossroads	28	93.3
Street	45 m street	29	96.7
	27 m street	24	80.0
	09 m street	14	46.7
Landscape	Mayura garden	30	100.0
	Vacant land	16	53.3
	District territorial	23	76.7
District	Settlement blocks	25	83.3

(Source: Mulyadi (2008))

6.4 The Spatial Orientation and Hierarchy

According to Parimin (1986), Sularto (1987), and Soewarno (1990), to know the orientation and spatial hierarchies of Balinese traditional villages, a researcher should do a visual observation by checking the position of three temples (*Kahyangan Tiga*) where the inhabitants of a particular area practice their worship ritual, checking the settlement pattern of the community, and checking the territory. Meanwhile, Suwena (2003) argues that each Balinese traditional village has its own orientation and hierarchy. A researcher can find them by observing the land use and topography of the region to determine whether it is an elevated, plain, or low-lying area.

Furthermore, Parimin (1986), Sularto (1987), and Soewarno (1990) state that the orientation and hierarchy of city or traditional village area in Bali can be seen from the presence of two temples (*Desa* and *Puseh*) in the

northernmost part of the city, a temple (*Dalem*) and a graveyard in the southernmost part, and these residential area in between these two groups. Meanwhile, [Parisada Hindu Dharma \(1995\)](#) argues that the two temples that are in the northernmost part are high value because they directly face towards the mountain, and the one temple on the southernmost part is not really good because it faces towards the sea.

According to [Samadhi \(2004\)](#), city areas in Bali have the following spatial hierarchies: three temples called *Parahyangan*, the territorial border called *Palemahan*, and the dwelling community called *Pawongan*.

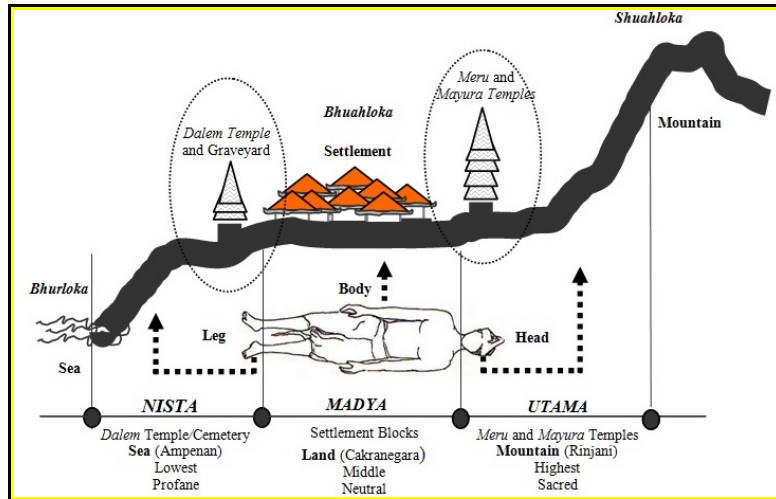


Figure 5. The Elements of Tri Angga; Tri Mandala; and Tri Loka
(Source: Mulyadi (2008))

The result of the interviews, cognitive mapping, and the visual observation by the researcher conducted in Cakranegara city has found the presence of two temples of worship (*Meru* and *Mayura*) to the east from the central crossroad and one temple (*Dalem*) in the westernmost part of the city, distinct territorial borders, and residential dwellings in the settlement blocks.

The findings, first, when matched between the principle of *Tri Hita Kharana* and the land use in Cakranegara city, show that Cakranegara city has the spatial hierarchical principle of *Tri Hita Kharana*. There are three kinds of worship sites as the empirical evidence for this. They are the temples of *Mayura*, *Meru*, and *Dalem* as *Parahyangan*, the territory of Cakranegara city as the body (*Palemahan*), and the population of Cakranegara city as *Pawongan*. Second, when matching the principle of *Tri Angga*, *Tri Mandala*, and *Tri Loka* with land use in Cakranegara city, it was found that Cakranegara city has spatial hierarchies of those three principals. There are two kinds of worship sites as the empirical evidence for this, they are the temples of *Mayura* and *Meru* to the east from the central crossroads representing the atmosphere (*Shuahloka*) and *Utama*, and in addition, *Dalem* temple and the graveyard to the west from the central crossroads which represent the hydrosphere (*Bhurloka*) and *nista*. Meanwhile, there are settlement blocks, representing the lithosphere (*Bhuahloka*) and *madya*. Thirdly, when matching the principle of *Rwa Bhinneda* and the land use in Cakranegara city, it is shown that Cakranegara city has a spatial orientation according to that of *Rwa Bhinneda* principal. There are two kinds of worship sites as the empirical evidence for this. They are the temples of *Mayura* and *Meru* located in the east representing the direction to Mount Rinjani and the sunrise, and the one temple (*Dalam*) in the westernmost part which represents its relation to Ampanan Sea and the sunset (*Figure 5*).

7. CONCLUSION

Based on the discussion, it is concluded that the historical city of Cakranegara has main characteristics. First, the settlement blocks adopt the principle of *Asta Dikpalaka*. Second, the crossroads adopt the principle of *Panca Brahma*. Third, the structure of the city with a grid pattern is the adoption of: (1) the importance of a place to accommodate the social and ritual religious activities; (2) the settlement blocks to accommodate the immigranst to Bali Island in groups from their native region; and (3) the belief of *niskala* power at each crossroad. Fourth, the spatial orientation of Cakranegara city adopts the principle of *Rwa Bhinneda*, where the spatial hierarchy of Cakranegara city adopts the principle of *Tri Hita Kharana*, *Tri Angga*, *Tri Mandala*, and *Tri Loka*.

REFERENCE

- Agung, Anak Agung K. (1992). Kupu-kupu Kuning yang Terbang di Selat Lombok, Penerbit PT, Upada Sastra, Denpasar Bali.
- Aminuddin, R.A.D. (1999). Konsep Kosmologi, Pusat Pengajian Islam dan Pembangunan Sosial Universiti Teknologi Malaysia, Skudai, Johor Bahru.
- Atmaja, Ida Bagus O.P. (1999). Bali dan Masa Depan, Tri Hita Karana, (Wayan Supartha Penyunting), PT, Bali Post, Denpasar Bali.
- Atmaja, J. (2003). Perempatan Agung, Menguk Konsep Palembang Ruang dan Waktu Masyarakat Bali, Penerbit Bali Media Adhikarsa, Denpasar Bali.
- Banerjee, Tridib and Southworth, Michael (ed). (1990). Sense and City Design – Writings and Project of Kevin Lynch, The MIT Press, Massachusetts, London and Cambridge.
- Bell, Baum A. Fischer J. and Greene, T. (1990). Environmental Psychology, Holt, Rincart and Winston Inc.
- Budihardjo, E. (1991). Architectural Conservation in Bali, Gajah Mada University Press, Yogyakarta.
- Cool, Capt. W. (1896). De Lombok Expeditie, Batavia, G. Kolt dan CO.
- De Graaf, H.J. (1941). Lombok in de 17e, Eeuw, Djawa, 21, 6.
- De Vaus (1991). Surveys in Social Research, Allen and Unwin.
- Dharmayudha, I Made S. and Cantika, I Wayan K. (1999). Filsafat Adat Bali, Penerbit PT, Upada Sastra, Denpasar.
- Djelenga, H. L. (2001). Sejarah Lombok dan Beberapa Bukti Peninggalannya, Mataram Press, Mataram.
- Eiseman, JR. Fred B. (2005). Bali Sekala and Niskala, Volume I: Essay on Religion, Ritual and Art, Published by Periplus Editions (HK) Ltd, Singapore.
- Festinger, L. and Katz, D. (1953). Research Methods in the Behavioural Sciences, Holt, Rinchart and Winston.
- Funo, S. (1995). Cakranegara, A Unique Hindu City in Lombok (Indonesia) The Grid in the Tradition of Asian City Planning, Makalah yang disampaikan dalam Seminar Arsitektur Nusantara, Kejekan dan Perubahan, World Trade Centre, Surabaya.
- Gelebet, I Nyoman (1986). Arsitektur Tradisional Daerah Bali, Departemen Pendidikan dan Kebudayaan, Denpasar Bali.
- Geriya, S.S. (2004). Upacara Bayi dalam Kandungan, Penerbit Paramita, Surabaya.
- Gorda, I Gusti N. (1996). Etika Hindu dan Perilaku Organisasi, Widya Kriya Gematama, Denpasar Bali.
- Handinoto (2000). "Sistem Jalan di Cakranegara dan Purbolinggo, Sebuah Perbandingan", Jurnal Dimensi, Petra Press, Surabaya.
- Hermanislamet, B. (1999). Tata Ruang Kota Majapahit, Analisis Keruangan Bekas Pusat Kerajaan Hindu Jawa Abad XIV di Trowulan Jawa Timur, Unpublished Ph.D Dissertation, Universitas Gadjah Mada, Yogyakarta.
- Kaler, I Gusti K. (1994). Butir-Butir Tercecer tentang Adat Bali, Penerbit CV, Kayumas Agung, Denpasar Bali.
- Levi-Strauss (1969). Totemism, Diterjemahkan dari Bahasa Perancis oleh R. Needham, Penguin Books, Middlesex.

- Mantra, Ida Bagus (1988). Masalah Sosial Budaya Khususnya Pembangunan di Bali dalam Rangka Menyongsong Era Tinggal Landas, Pusat Penelitian Universitas Udayana, Denpasar Bali.
- Monografi (1985). Monografi Daerah Bali, Proyek Pemerintah Daerah Tingkat I Propinsi Bali, Denpasar Bali.
- Mulyadi, L. (2008). Karektor dan Konsep Susun Atur Ruang Bandar Bersejarah Cakranegara Indonesia, Unpublished Ph.D Dissertation, Universiti Teknologi Malaysia, Skudai, Johor Bahru.
- Munandar, A.H. (2005). Istana Dewa Pulau Dewata. Makna Puri Bali Abad Ke 14-19, Penerbit Komunitas Bambu, Jakarta.
- Parimin, A.P. (1986). Fundamental Study on Spatial Formation of Island Village: Environmental Hierarchy of Sacred-profane Concept in Bali, Unpublished Ph.D Dissertation, University of Osaka, Japan.
- Parisada Hindu Dharma (1995). Upadeca Tentang Ajaran-Ajaran Agama Hindu, Penerbit PT, Upada Sastra, Denpasar Bali.
- Patra, Made S. (1992). Hubungan Seni Bangunan dengan Hiasan dalam Rumah Tinggal Adati Bali, Balai Pustaka, Jakarta.
- Pidarta, Made (2000). Hindu Untuk Masyarakat Umum, Penerbit Paramita, Surabaya.
- Puja, G. (1985). Suatu Pengantar dalam Weda, TP, Jakarta.
- Rahardjo, M.P. (1989). Meaning in Balines Traditional Architecture, Unpublished Magister Thesis, University of Kansas, Lawrence.
- Salim, M. (1992). Aspect of Urban Design With Special Reference to Image and Identity in Built Form-Case Study of Kuala Lumpur, Unpublished Ph.D Dissertation.
- Samadhi, T.N. (2001). "The Urban Design of a Balinese Town, Placemaking Issues in The Balinese Urban Setting", *Journal Habitat International*, 25/4:559-575.
- Samadhi, T.N. (2004). Perilaku dan Pola Ruang, Penerbit Lembaga Penelitian dan Pengabdian Masyarakat Intitut Teknologi Nasional, Malang Jawa Timur.
- Shuhana S. (1997). Identity of Place - A Case Study of Kuantan Town Centre, Unpublished Ph.D Dissertation, University of Nottingham Institute of Urban Planning.
- Shuhana S. and Ahmad Bashri S. (1992). Typology of Urban Form of Old Town Centres in Malaysia, Unpublished Research Report, Universiti Teknologi Malaysia, Skudai, Johor Bahru.
- Shuhana S. and Ahmad Bashri S. (1999). Public Perception of Urban Spaces - A Case Study Centre of Bandaraya Johor Bahru, Unpublished Research Report, Jabatan Seni Bina, Fakulti Alam Bina, Universiti Teknologi Malaysia, Skudai, Johor Bahru.
- Shuhana S. and Ahmad Bashri S. (2002). Developing A Guideline for Designing Urban Intervention in Places of Historical and Cultural Significance in Malaysia, Unpublished Research Report, Jabatan Seni Bina, Fakulti Alam Bina, Universiti Teknologi Malaysia, Skudai, Johor Bahru.
- Soeka, I Gde (2004). Tri Murthi Tattwa, Penerbit CV, Kayumas Agung, Denpasar Bali.
- Soewarno, N. (1990). Transmigration Built Form and Ethnicity, Unpublished Ph.D Dissertation, University of Newcastle Upon Tyle.
- Spreiregen, Paul D. (1965). Urban Design, The Architecture of Town and Cities, McGraw-Hill, New York.
- Sudharta, T.R. and Atmaja, Ida Bagus O.P. (2005). Upadesa, Tentang Ajaran-Ajaran Agama Hindu, Penerbit Paramita, Surabaya.
- Sugiyono (2009). Metode Penelitian Kualitatif Kuantitatif dan R&D, Penerbit CV, Alfabeta, Bandung.
- Sularto, R. (1987). Arsitektur Tradisional Bali dan Permasalahannya, BIC, Denpasar Bali.
- Suparman (2003). Tri Hita Kharana sebagai Landasan Hidup Masyarakat Bali, (Jiwa Atmaja penyunting), Penerbit CV, Bali Media Adhikarsa, Denpasar Bali.
- Suwena, I Wayan (2003). Makna Orientasi Arah di Bali dalam Perempatan Agung, Atmaja (editor), Penerbit CV, Bali Media Adhikarsa, Denpasar Bali.
- Wacana, H.L. (1988). Sejarah Daerah Nusa Tenggara Barat, Depdikbud, NTB, Mataram.
- Walker, R. (1985). Applied Qualitative Research, Gower Publishing Co, Ltd, Aldershot.
- Widana, I Gusti K. (2002). Mengenal Budaya Hindu di Bali, Penerbit PT, Pustaka Bali Post, Denpasar Bali.
- Wirjomartono, A.B.P. (1995). Seni Bangunan dan Seni Binakota di Indonesia, Kajian Mengenai Konsep, Struktur dan Elemen-Elemen Fisik Kota sejak Peradaban Hindu-Budha, Islam hingga Sekarang, Penerbit PT, Gramedia Pustaka Utama, Jakarta.
- Zakaria, Fath (1998). Mozaik Budaya Orang Mataram, Yayasan Sumurmas Al Hamdy, NTB, Mataram.

Review on a Practical Approach of Sustainable Urban Design Strategy in the Perspective of Conflict in Shanghai

Xia Mo^{1*} and Weiqiang Wang²

1 East China Architectural Design & Research Institute Co.,Ltd., Urban Planning & Architectural Design Institute

2 College of Architecture and Urban Planning, Tongji University

** Corresponding Author, Email: moxiaa@126.com*

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Abstract: As the abstract of the main parts of a doctoral dissertation, this paper tried to show the overall study skeleton: a sustainable urban design strategy could be investigated from two domains, the space construction and the social action. In the perspective of "conflict", according to the urban development of Shanghai, five conflict fields were proposed and the relevant empirical studies were implemented, focusing on the above two dimensions and combined closely with the stage characteristics of urban development to explore practical approaches of sustainable urban design. Also, the content framework of sustainable urban design strategies was formed based on the above study and enumerated briefly.

1. TWO DOMAINS OF SUSTAINABLE URBAN DESIGN STRATEGY: THE SPACE CONSTRUCTION AND THE SOCIAL ACTION

In the 21st century, according to the many conflicts and crises of cities, sustainable urban design is increasingly becoming an inevitable response, and represents the development orientation of urban design theory and practice. At the same time, its strategy should not just be limited to the development of the city itself but taken into a kind of process study, associated with the region's comprehensive factors including population, economy, society, resources, environment and others, to promote the natural and ecological balance, the social equality and healthy lifestyles, and the policy arrangements and action co-ordination, through which the innovation process for sustainable development can be advanced and wider research and discussion be stimulated.

For China, with an extensive land area and a long history, in the context of world economic structural adjustment and its own social transformation with the interactions of all of the globalization, urbanization, marketization and democratization ([Wang Weiqiang, Wang Mengyong, et al. \(2010\)](#); [Yuan Yan \(2008\)](#)), if there is no clear grasp about its development phases, characteristics, mechanisms and so on, just considering the problems in

isolation, such research is not enough to add unique understandings of its methods of sustainable development. In this sense, with attention to four aspects, including the natural conditions, the economic model, the social conditions, and the system mode (Figure 1) of China, this paper tries to integrate the main objectives of sustainable urban design strategy into two domains of "space construction" and "social action" to study (Figure 2).

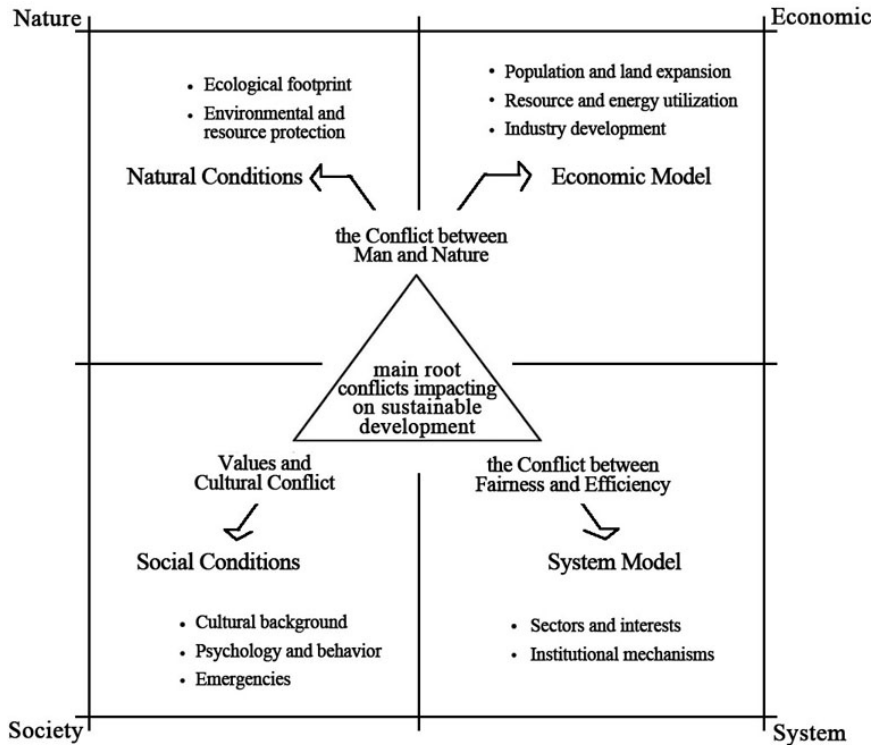


Figure 1. Analysis dimensions of the local urban development situation in the context of globalization

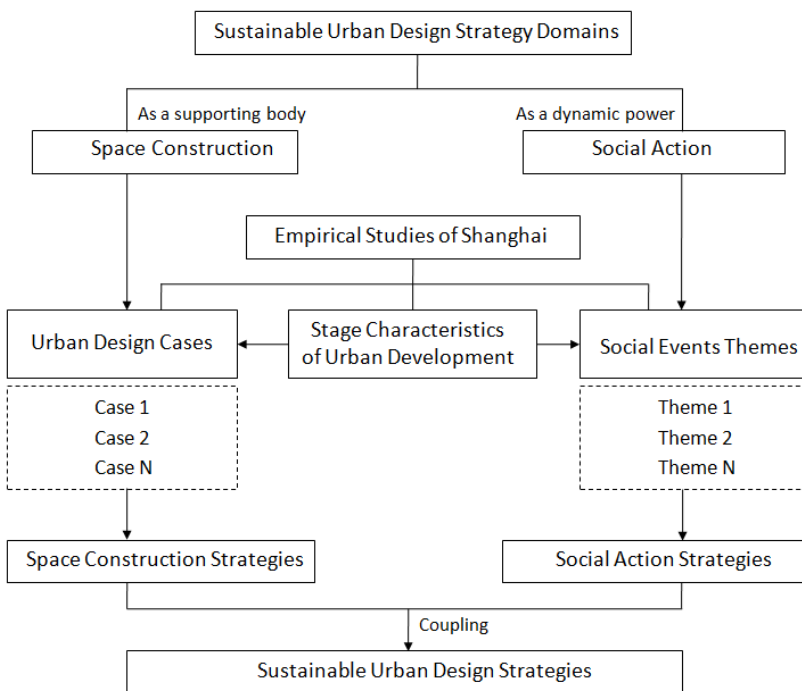


Figure 2. Research route for sustainable urban design strategy domains

On the one hand, the development and evolution of urban space itself is embodied as a kind of social development process with transforming and restructuring. Judging from the surface features, the city is reflected in the performance of its two-dimensional and three-dimensional space, such as its form, style and layout of material elements, while from the content essence, it is a kind of comprehensive reflection of the interaction of history, culture, politics, technology, and a variety of human activities and natural factors. Moreover, with increased connectivity and mobility of modern cities as well as people, concepts, information, urban scale, and technology in constant change, the connotation of urban space is becoming more abundant and frequently changeable, and its social characteristics have become stronger and increasingly reflect the characteristics of dynamic development and diverse perception. As a result, combined with this process and its result, to analyse the styles and forms of space and the evolution pattern of urban development, will be a kind of attempt at exploring patterns and applications combined with the considerations for social factors, which will help to inspire and refine the ideal model of urban development, and expand the deep-seated social construction fields of urban space.

On the other hand, in fact, the evolution process of real time social forces and physical forces, intertwined in an interactional or emergent way, will inevitably be affected and repeatedly adjusted by the actions of people, including the actor, the acted upon, the conditions and means, the normative orientation and others ([Parsons, 2003](#)). They will also act on the reality of the sustainable development of a region, accompanied by the specific practice situations limited or initiated by conflicts. To be sure, social action itself is a closely relevant problem to the actual social transformation, and the exploration for its final "meaningful effect" ([Yang, 2005](#)) is reflected as a common effect of practice. It is not only inseparable from the considerations of interconnectedness and the public consistency of social actor bodies, and the ones of the socio-economic environmental factors in the selection and use of policy instruments ([Zhao, 2011](#)), but is also inseparable from the integration and reconstruction of social cooperation and social order in the reproduction process of practical action ([Yang, 2005](#)).

Overall, the "space construction" strategy emphasizes the construction of social space itself in this paper, and is the bearing of sustainable urban design for social elements; while a "social action" strategy is the action response of a construction mode in the perspective of transformation, and additionally plays a supporting role for social elements. As the methods and processes of solving problems in the perspective of conflict, they together reflect two aspects of one body of sustainable urban design, and complement each other while having different breakthrough points and analysis focuses.

2. "CONFLICT" INVESTIGATION FOR SHANGHAI URBAN SPACE: THE SITUATION AND THE RESPONSE

"Conflict" is a kind of phenomenon and feature of social facts ([Durkheim, 1995](#)). Moderate conflict is often very constructive, and can be transformed into a positive force for change ([Dahrendorf, 1958; 1959](#)), promote social stability ([Simmel, 1908](#)), excite the formation of dominant values ([Chen, 2005](#)), be conducive to re-structuring of the social order

(Yang, 2005), and be beneficial to the coordination and integration of practical activities (Collins, 1981; Knight, 2009). Associated with sustainable urban design orientation, this paper attributes the main root conflicts impacting on sustainable development to three main aspects of the conflict between man and nature, values and cultural conflict, and the conflict between fairness and efficiency (Figure 1).

More specifically, this paper analyzes the conflict issue from the following two cognitive dimensions: (1) the situation of conflict, which is always a kind of presence status in a certain period of time. In fact, whether it is from the perspective of power interests, resources, other interactions, or a unique perspective to investigate the status of conflict, we can always attribute it to a kind of situation of conflict embodied or rendered in the development process of a city or society. The values, actions and systems can be produced in the interaction of the various forces in a situation of conflict; and (2) the response of conflict, whereby once the conflict presents itself, the parties in it all try to take effective measures to influence the development of the conflict, to make its results more conducive to their own interests, which reflects the specific measures regarding the response of conflict.

As for the situation of conflict in Shanghai, embracing diverse stakeholders of government, business interest groups, the public and so on, is not influenced by the rooted conflicts acting on its sustainability, but is exposed to the overarching conflict situations of sustainable development and construction of cities. The development of urban space can be divided into three phases according to its economic and social development and spatial evolution since 1990 (Table 1, Figure 3).

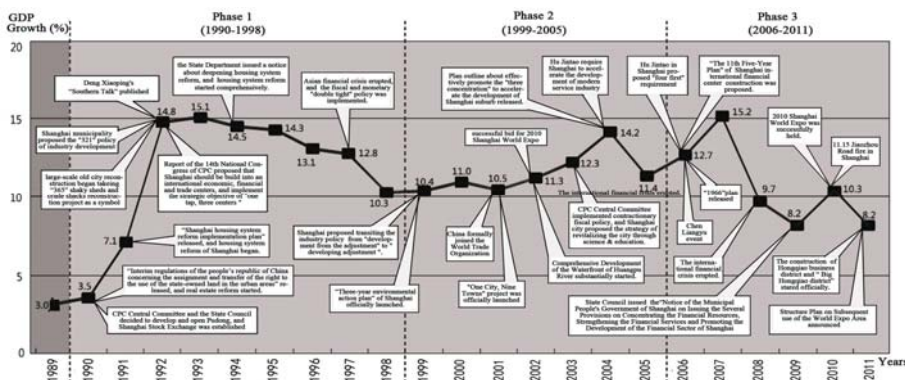


Figure 3. Three Phases of Socio-Economic Development and Spatial Evolution of Shanghai (1990-2011)

Table 1. Division of analysis aspects contributing to stages of Shanghai urban space development

Development Fields	Main analysis factors
Economic development	- Cyclical features of economic growth - General characteristics of industrial structure - Industrial power - Demand power
Social Development	- Social development stage characteristics - Social development motivation
Urban construction and spatial development	- Evolution characteristics - City construction situation

During this period, on the one hand, the outward expansion of built-up areas and suburbanization was evident (Figure 4), and with the penetration

of ecologically sustainable concepts, the new urban development of Shanghai city is increasingly combined closely with construction for sustainability and shapes the city's future ideal life. On the other hand, diverse and complex restructuring is going on in the interior space of this city, which is intensively reflected in the construction, protection and development of the central city, the Huangpu River and other core areas. In this process, the points are often inseparable from the ecological, cultural, and public interest considerations, and the phase of "old city reconstruction" is being progressively broken through and the threshold of "new city transformation" is surpassed. Through this study, the paper proposes that the sustainable development and construction of urban space in Shanghai since 1990 has faced five major fields of conflict (Figure 5), which are the conflict between the city and rural areas, the new and the old, the public and the private, the global and the local, and the crisis of environment and resource, which were induced and resulted in the three root conflicts closely related to its sustainable development, and the 20 major conflict aspects among them are shown in Figure 5.

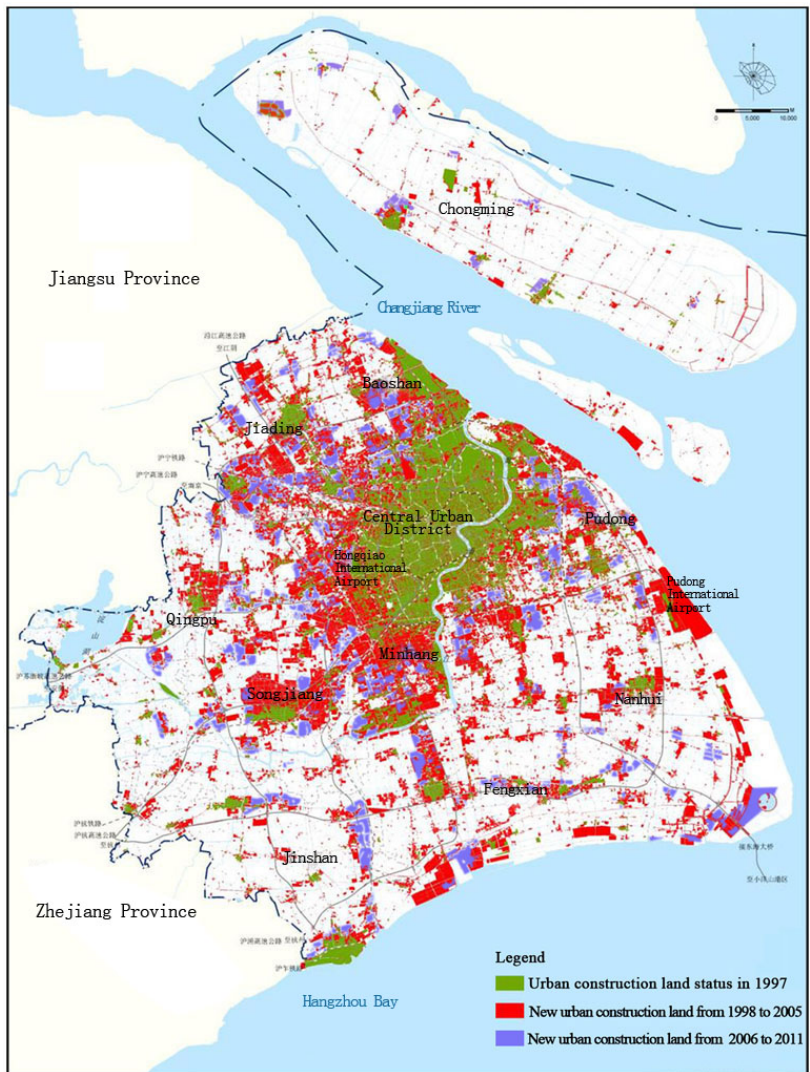


Figure 4. Dynamic change of urban construction land in Shanghai (1997, 2006, 2011)

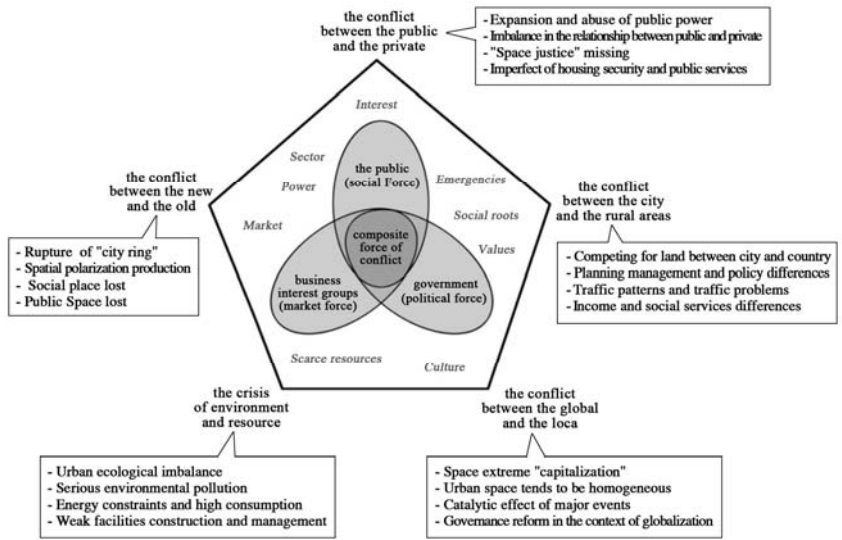


Figure 5. Conflict fields and performances related to the development of urban space in Shanghai

Then, as for the response to conflict, empirical studies have been developed and combined closely with the stage characteristics of urban development in Shanghai, drawing support from the associative analysis of the "technical route" and "action route". Among them, "technical route" embodies the studies about the space construction in seven local urban design cases, which are "Lujiazui CBD, Shanghai Xintiandi, Duolun Community, Comprehensive Development of the Waterfront of Huangpu River, Dongtan Eco-City, Hongqiao Business District, Expo 2010 and 'After Expo'", and the "action route" is implemented through the research of four themes drawing from the conflict development processes of local social events, including "new area development in the rapid urbanization process, the transformation of the old city areas and the cultural renaissance, the liveable environment and ecological construction, and the local governance promoting social harmony" (Figure 6). Also, these cases selected regarding the different strategy domains are inherently associated with the above five fields of conflict (Figure 7).

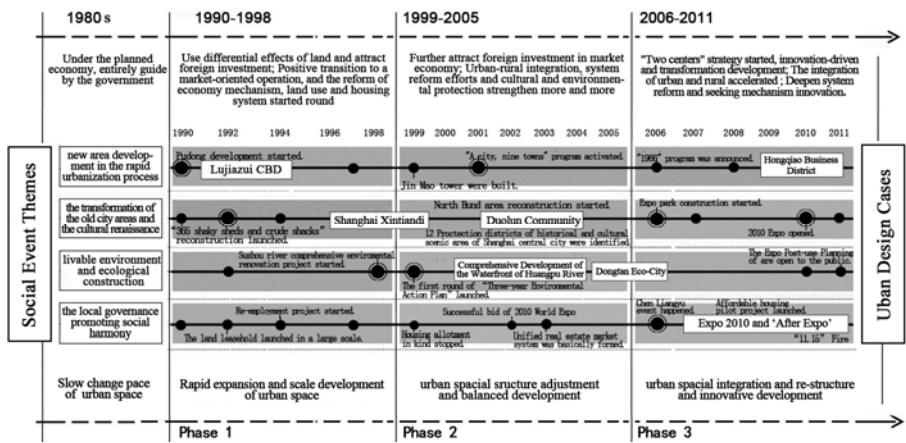


Figure 6. Conflict analysis frame work of focus issues and corresponding approaches in the empirical studies

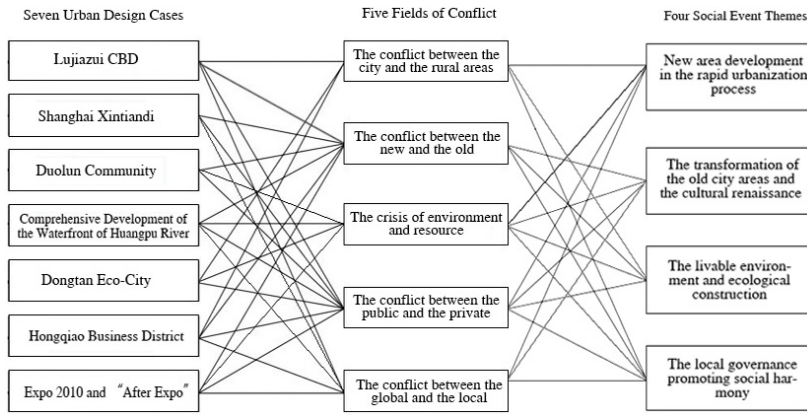


Figure 7. Main conflict-orientations of the cases selected

More specifically, the paper tries to take the elements of conflict analysis, including time point, participants, selection, means and so on, more systematically into the specific research and analysis of these cases (Figure 8). Furthermore, combining the above overall investigation about conflict situations, and especially based on the problem framework of 20 major conflict aspects among the five major conflict fields, this paper takes the core points and corresponding policies reflected in the case studies into integrated considerations, to extract beneficial approaches and summarize the main orientations. Which approaches offer favourable initiatives and which ones are inadequate are analysed, and the latter's changes in turn could generate useful strategies, which could be taken as the foundation of discussing strategies toward integration and balance, as well as the exploration for the useful mechanisms of promoting design organization and practice. Finally, through the strategy of coupling space construction and social action, the main contents of the sustainable urban design strategies are generated and developed.

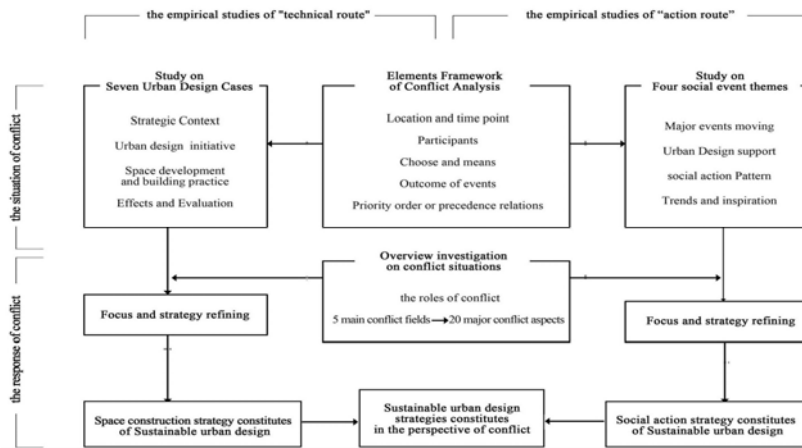


Figure 8. Analysis framework of "technical route"-"action route" coupling

3. CONTENT FRAMEWORK OF SUSTAINABLE URBAN DESIGN STRATEGIES

From the entirety of the research, the following characteristics of conflict can be summed up in the urban development of China, which is increasingly widespread and diverse, increasing in scale, more intense, more pluralistic in

conflict, and occurring due to a growing complexity of reasons. As for the specific strategy for dealing with conflict, generated from the above two routes studied, the strategy sets are formed including 27 beneficial measures and 24 negative aspects. This paper further proposes the countermeasures and recommendations of implementation from two aspects (Figure 9). On the one hand, five overall orientations are summed up by the appropriation of technology, public priority, health and safety, policy decisions and co-ordination, and methods of innovation. On the other hand, the linked countermeasure system of "four-in-one", a local strategy of sustainable urban design, is composed of the four aspects of design principles, procedure structure, policies and regulations, and action mechanisms (Figure 10).

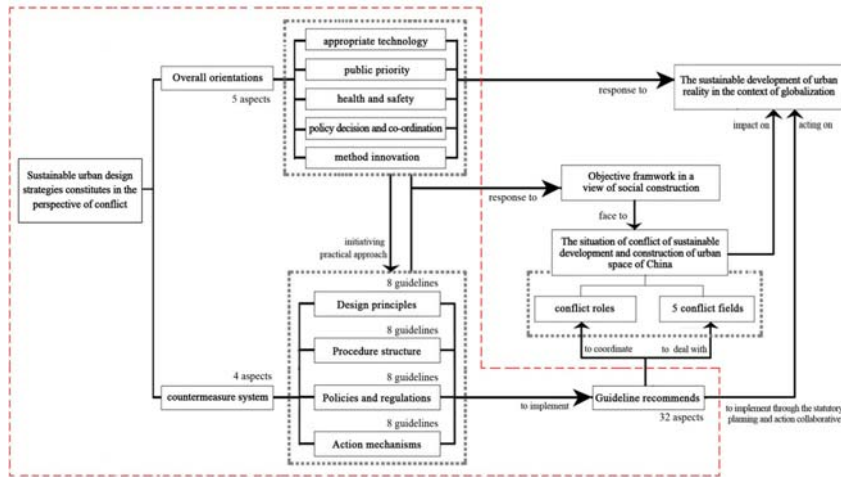


Figure 9. Framework of sustainable urban design strategies responding to local urban development

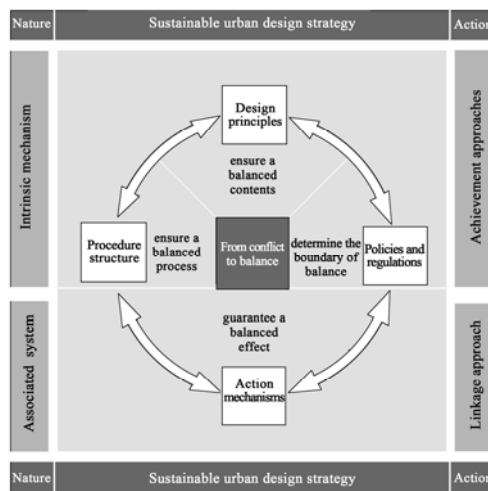


Figure 10. "Four-in-one" countermeasure system of the sustainable urban design strategy

Within the linkage countermeasure system, the first three constitute a kind of intrinsic mechanism and are the achievement approaches of strategies, as driving factors of the objective, process and decision, respectively. The last one is a connecting, driving factor objective that embodies a kind of associative and derivative system, which is the linkage approach. We can see that it is in the interactive practice of them that the sustainable development and construction of urban space are able to be promoted and implemented. Based on this "four-in-one" system, the paper

further proposes 32 guidelines for an implementation-oriented sustainable urban design strategy for Shanghai based on the above four aspects. There is an itemized explanation and refinement of them, and a pre-set evaluation about the effect of the application of the guidelines for the above five fields of conflict (*Table 2*). However, with respect to the length of this paper and the point of discussion, the detailed analyses demonstrating the effect of the countermeasures for each case, which were the foundation for *Table 2*, will not be shown in this article.

Table 2. Pre-evaluation of conflict resolution for the implementation of sustainable urban design guidelines in Shanghai

Countermeasures	Guidelines	Response to the five conflict fields				
		1	2	3	4	5
Design principles	- Compact and intensive	√	√	√	√	-
	- Function mixed	√	√	√	√	√
	- Traffic harmony	√	√	√	√	√
	- Public and open space	√	√	√	√	√
	-Characteristics construction	-	√	√	√	√
	- Renewal focusing on the protection	-	√	√	√	√
	- Social justice	√	√	√	√	√
	- Social inclusion	√	√	√	√	√
Procedure structure	- Top-level design	√	√	√	√	√
	- Public participation	√	√	√	√	√
	- Monitoring and feedback mechanism	√	√	√	√	√
	- Adjustment mechanism	√	√	-	√	√
	- Determine transitional zone	√	√	√	√	√
	- Technology Innovation	√	√	√	√	√
	- Specialized bodies of coordination and management	√	√	√	√	√
	- Open and diversified operation system	√	√	√	√	√
Policies and regulations	- Intensity standards of resource utilization	√	√	√	√	√
	- Ensure of public space resources	√	√	√	√	-
	- Limit of the negative impact of the new buildings	√	√	√	√	√
	- Open of the city	√	√	√	√	√
	- Risk management	√	√	√	√	√
	- Affordable housing	√	√	-	√	√
	- The continuation of the local landscape and lifestyle	-	√	-	√	√
	- Floating population living guarantee	√	√	√	√	√
Action mechanisms	- Three synergistic force	√	√	√	√	√
	- Multi-governance	√	√	-	√	√
	- Concept guiding	√	√	√	√	√
	- Technology links	√	√	√	√	√
	- The degree of integration and homogeneity	√	√	√	√	√
	- Institutional penetration	√	√	√	√	√
	- The cohesion of time and sequence	√	√	√	√	-
	- The role of urban designers	√	√	√	√	√

4. CONCLUSION

It was the conflict problems during the development and construction of urban space that prompted the original pattern of China to be an extensive, fragmented, and individual combative style, needing urgently to be replaced by a kind of pattern which is affordable and associated with local factors, concerning the social situations and the "here and now" problems. Taking this as a fundamental point, the paper focuses the strategy study on two complementary aspects of space construction and social action, and tries to present a method of conflict analysis involving the two aspects of the situation and the response of conflict, mainly based on the investigation of the five conflict fields and their 20 major conflict problems. Through them, the conflict types and characteristics can be summed up, and the strategy orientations and countermeasures of sustainable urban design are proposed briefly in this paper to be of some useful reference.

REFERENCES

- Chen, Z. L. (2005). *"The value conflicts and the establishment of dominant values in a social transition"*. Nanjing normal university doctoral thesis, Nanjing.
- Dahrendorf, R. (1958). "Toward a theory of social conflict". *Journal of conflict Resolution*, (2):170-183.
- Dahrendorf, R. (1959). *"Class and class conflict in industrial society"*. Stanford university press, Stanford, CA.
- Durkheim, E. (1995). *"The rules of sociological method"*. Commercial press, Beijing.
- Knight, J. (2009). *"Institutions and social conflict"*. Shanghai Renmin press, Shanghai.
- Parsons, T. (2003). Translated by Zhang Mingde, Xia Yunan, Peng Gang. *"Structure of social action"*, Yilin press, Nanjing.
- Randall, C. (1981). "On the micro-foundation of macro-sociology," *American Journal of Sociology*, 86:984-1014
- Shanghai Urban Planning & Design Research Institute. (2009). *"General report of Shanghai land use spatial development strategy research"*.
- Simmel, G. (1908). *"Sociology: Inquiries into the Construction of Social Forms"*. Brill, Boston.
- Wang, W. Q., Wang, M. Y. (2010). "Discussion on the force mechanism of urban development and transformation with the background of dual globalization", *Shanghai urban planning review*, (1):3-8.
- Yang, M. (2005). *"The meaning effect of social action: a study on modernity features in the accelerating society transformation period"*. China Renmin university press, Beijing.
- Yuan, Y. (2008). *"Urban spatial research under globalization - a case of Shanghai suburban"*, China architecture & building press, Beijing.
- Zhao, D. Y. (2011). *"Public policy: community, instruments and process"*, Shanghai Renmin publishing house, Shanghai.

Local Wisdom As The Ontological Foundation To Postmodern Urban-Design In A Developing Country

The case of Semarang city, Mid-Java, Indonesia

Rudyanto Soesilo^{1*}

1 Faculty of Architecture & Design, Soegijapranata Catholic University

** Corresponding Author, Email: roedzoes@yahoo.com*

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Abstract: Cities in a developing country play a role as a growth-pole, with high economic activity. This role, acts as a great magnet for low income rural people - who still live in a cosmocentric ontology - to migrate to the cities. This condition becomes a real challenge to urban designers in a developing country. The rural migrants accumulate as the majority of inhabitants and if they are not considered carefully there will be many problems to the city's life, include the emergence of slums and shanties. Semarang is the municipal of Mid-Java province in Indonesia, a developing country. A significant case among many others, Semarang can be found at the Djohar traditional market at the center of the city. The traditional market was designed by famous Dutch olden-times architect, Herman Thomas Karsten. The market was designed for ordinary low-class people complementary to the Bojong shopping street, which was designed for the Elite Dutch class. Indonesia proclaimed its independence on August 17th 1945. About the year 2000, some investors tried to change Djohar and its surrounds into an elite shopping area. This effort failed. The low-class people still exist in this area. This tells us about a different urban planning and design solution for different communities living in a city. A specific treatment in urban planning and design in a developing country that fits the worldview of the people living in it is required: Postmodern urban planning and design, with local wisdom as the ontological foundation.

1. INTRODUCTION: SOCIAL REALITY IN A DEVELOPING COUNTRY, DIFFERENT ONTOLOGY, DIFFERENT WORLD-VIEW, DIFFERENT BEHAVIOUR

Cities in developing countries were dominated by low-income populations. The low-income population migrates to a city, inhabits and lives there. The urban designer has to be familiar with this major community, for if not, the city will be designed and developed as an alien city for the majority of the community that live there. [Hansen \(2014\)](#) states

“...Kahn advocates for creating all new cities, saying, “If you don’t create new cities, every existing city will be a slum...”



Figure 1. Peterongan Street, *trottoir* and the body of the street turned into shopping area

The low-income community comes from the rural area and has their own world view, a cosmocentric ontology (the worldview that humans have been ruled by an external superpower), entering the city with recent development in the modern paradigm and modern ontology. This different ontological foundation plays as the root of a wider and wider gap as time goes by and the population grows larger and larger. At the time being, the gap between the Haves and the Have Nots is growing fast, the Haves create enclaves of the exclusive community such as real estate, gathering and clubbing facilities, shopping areas, business areas, all in an exclusive way. While the Have Nots occupy the public spaces and change it into an onstreet “shopping area” (Figure 1 and Figure 2).



Figure 2. Peterongan Street, the *trottoir* and the body of the street turned into shopping area

To solve the problem of a city as the habitat of the citizens with different world views, we can use the postmodern approach which accepts and combines the modern approach and the traditional-local wisdom approach together to look for a better solution.

The local-wisdom as a traditional cosmocentric view brings a familiar solution to the migrant population as an ex ruralist. From this point of view we can make a plan, a design for a city in this developing country, which can match the needs of each cluster in a win-win solution.

In a developing country, where the prosperity gap has the impact of unbalanced economic growth, cities grow as the growth-poles of the development process and role play as “a winner” upon its rival, “the village”. As the proverb says “The winner takes all”, cities take all the amenities and all the success as the results and products of the development process. So cities transform into “a paradise” while villages are still left behind. From this situation, the great rush, invasion and occupation by migrants from the rural into the cities begins.

Ferdinand Toenies divides people into two layers, *Gemeinschaft* and *Gessellschaft*. Urban people are identified as *Gessellschaft* or Society while rural people are identified as *Gemeinschaft* or Community. They have different worldviews and different ontologies. Ontology is a human self-perception, where someone posits his or her self in the constellation of this universe. This perceived position creates a worldview, and different self-perceptions create other worldviews. That happens in the case of the Urbanists and Ruralists. This different ontology, different worldviews, leads to different behaviours being practiced while living in the cities.

The Ruralist does not obey the city's rules, regulations and conducts, Ruralists cannot understand all of that because all the rules and regulations are based on a modern individual ontology, while the Ruralist lives in a communal ontology where they belong each to one another. This *Gemeinschaft* ontology is what postmodernism calls one of the local-wisdoms, that is, the social reality in a city in a developing country that urban planners and designers have to give attention to a successful urban-solution which can be accepted by many layers of the inhabitants in the city.

2. **INDONESIAN URBAN MANAGEMENT PROBLEM**

Globalization as a manifestation of modern capitalism is now a worldly phenomenon. Globalization grips the whole-world including developing countries like Indonesia. Globalization has very wide spectrums from the economics realm to global urban life-styles; triggering many demanding needs of many urgent urban-facilities such as modern shopping malls, apartments, hotels, office buildings and recreation areas. The demanding needs run very fast and rules and codes are often "by-passed" to meet them. The gap between the Haves and the Have Nots results in the emergence of an urban design solution, referred to here as an "elite-enclave among slums". An elite area with very luxurious facilities, but is besieged by slum areas around it. This urban model encompasses many developments in real estate and properties, including many urgent urban facilities such as modern shopping malls, apartments, hotels, office buildings and recreation areas. In all the urban areas, there appear many "elite enclaves" like "beautiful islands" among slums. Adopting the international, modern style, where buildings lay singular - that "beautiful island" which stands arrogantly and looks like it "has nothing else to care about" regarding the poor realities surrounding it. From one building to another, pedestrians have to risk their lives, by walking in very crowded and dangerous zones. Capitalism, globalization and modernism result in the widening of the gap between the rich and the poor in an urban development in a developing country ([Soesilo, 2011b](#)).

The custom of people in a developing country (i.e Indonesia) is to leave their garbage or throw it into the river (*Figure 3 and Figure 4*).



Figure 3. The river becomes a garbage pot



Figure 4. The river becomes a garbage pot

The root of this custom lays with the traditional ontology which accepts the river as the backside, here referred to as “waterback”, a concept of space (As compared to the concept of “waterfront” architecture). The traditional ontology believes that a mountain is the home of the good spirit, while the sea and the river are the homes of the bad spirit, so the design of a building is back to back with the river. The river as a backside becomes a service area, and it can be a place of dirt, garbage, dark, and squatter (Figure 5). Traditional Javanese poetry expresses the ontology: “*E dayohe teka, e gelarno klasa, e klasane bolong, e tembela gemblong, e gemblonge mambu, e pakakna asu, e asune mati, e guwako kali*”, meaning to throw away garbage like the dog’s carrion to the river.



Figure 5. Colonial building along the Semarang River, the Waterfront Dutch design

2.1 The dichotomy of people-space and elite-space

It is a fact that the social structure of developing countries including Indonesia, is based on different social classes, between the Haves and the 'ordinary people', or the have nots'. Both classes need 'space' to live, to work and to fulfill their respective activities. Activity space for these two layers of

society cannot be blended together; each has tradition, logic and specificities of their own.

2.2 The “Pasar Djohar” case, Semarang

Pasar Djohar located in Semarang city, is the fourth largest city in Indonesia, geographically lying between Jakarta, the largest city of Indonesia and Surabaya, the second largest. With about 3 million people living there, Semarang is an example of an urban setting in a developing country. Semarang is a city on the north coast of the island of Java, Indonesia. It is the capital and largest city of the province of Central Java. It has an area of 373.70 square kilometers (144.29 sq mi) and a population of approximately 2 million people, making it Indonesia's sixth most populous city and Indonesia's fifth largest city after Jakarta, Surabaya, Bandung, and Medan. Greater Semarang (also known as Kedungsapur) has a population of close to 6 million and is located at 6°58'S 110°25'E. It was a major port during the Dutch colonial era, and is still an important regional center and port today. The city has a dominant Javanese population.

The “Pasar Djohar” case, ([Soesilo, 2006](#)), (“Johar” in new spelling. Pasar means traditional market) is a case about a colonial market in Semarang, designed by Thomas Karsten, which has been surrounded by traditional markets and a night market called “Pasar Ya' ik”. The atmosphere of the whole great market is as a traditional market for many merchants in Semarang and from the hinterland, such as Kendal city, Kaliwungu city, Purwodadi city et cetera. The public space of the Djohar great market becomes a traditional space which matches the people and merchants who use it.

A “space” then has a deep meaning, because in that space, people live, do activities and make their life meaningful. A “Space” is not just a mere two-dimensional plot, but three-dimensional place to cultivate the human existence for its users. ‘People-space’ indicates an area in which ‘the people’, that in a developing country means ‘ordinary people’, marginalized communities and the populous (usually the Have nots), organize their life.

‘Pasar Djohar’ (*Figure 6*), was initially designed by pro-Indonesian Dutch architect named Herman Thomas Karsten (22 April 1884–1945), who was a Dutch engineer who gave major contributions to architecture and town planning in Indonesia during Dutch colonial rule. Most significantly he integrated the practice of colonial urban environment with native elements; a radical approach to spatial planning for Indonesia at the time. He introduced a neighbourhood plan for all ethnic groups in Semarang, built public markets in Yogyakarta and Surakarta, and a city square in the capital Batavia (now 'Jakarta'). Between 1915 and 1941 he was given responsibility for planning 12 out of 19 municipalities in Java, three out of nine towns in Sumatra and a town in Kalimantan (Indonesian Borneo).



Figure 6. Pasar Djohar, by Thomas Karsten



Figure 7. Pasar Djohar, 14th February 2014

‘Pasar Djohar’ was designed as a public market, as a space for ordinary people to interact. By architect Thomas Karsten, the Djohar Market is designed as a complement to ‘the Bodjong’ area, now Jl. Pemuda Street was the elite shopping center at that time (Figure 7 and Figure 8).



Figure 8. The atmosphere inside the market, a Gemeinschaft relationship (Johan, Semarang Kota)

History records that Pasar Djohar has over and over been targeted to be removed, ‘revitalized’, rebuilt or otherwise, and all want to change the Djohar area from a Public (people place) area to become an Elite area. Another heritage space surround Djohar, the Alun-alun Square and Kanjengan buildings, have been removed and then the Pendopo of the Kanjengan buildings collapsed after being transferred to a secluded place called Gunung Talang. The prior place has changed to become a ‘modern’ shopping center with the same name, ‘Kanjengan shopping center’, an attempt that later proved unsuccessful and turned out to be unsuccessful until now. The SCD (Shopping Center Djohar), was another attempt at a concept that is not contrary to the main concept of Djohar as the core spirit and regional magnet market, and had been marginally successful. The carnival atmosphere, which is very typical of the Ya'ik night market, the Semarang

and very popular, has declined and the developer has established yet another shopping center, called *Ya'ik Permai*. So the 'benevolent' developer has always left a heritage name as their sign of thoughtfulness. Along the way, SCD was later destroyed and replaced with 'Matahari Djohar', which was pursued as another new magnet that wanted to create a new enclave for the Haves. This seizing failed again, evidence that it is difficult to mix the space between two layers of people. The ordinary people, consistently, have recaptured the public space and created a new traditional market, selling along the overhang of the Matahari, where the atmosphere has become strange. The people selling in doorways penetrate to the crammed streets, while a thousand square meters of shopping floor next to them are empty and unused (*Figure 9*). Tragically the Semarang City Government in cooperation with other developers, many times, have created plans to seize and change the Djohar People's Market, continuing until today.



Figure 9. Kaki 5 (means a 5 foot, unlicensed street vendor) in front of formal shops at Matahari Dept. Store, Johar

Pasar Djohar, then becomes the last stronghold for the 'ordinary people' in maintaining the environment which matches with their activities, their behavior and their ontology. The Pasar Djohar location is easily accessible by public transport, which is better value than it should be for the ordinary people and is not needed by the upper-class people who have many other modes of personal transport. That ease, equips Pasar Djohar as a 'mostly good' public space for the city people and for the 'ordinary people', supporting those from the hinterland of Semarang, like Kendal and Kaliwungu namely, which since the colonial era, has allowed 'ordinary people' to always feel at home and satisfied when making a trip to Semarang, just after visiting Djohar. This Pasar Djohar case highlights the significant relationship between public spaces with the ontology of the people who use it.

3. THE IMPACT OF POSTMODERNISM ON URBAN PLANNING AND DESIGN IN INDONESIA

Since the 1970s, postmodernism has arisen as the continuation and correction of modernism, giving birth to a movement in nearly all aspects of human life, referred to as the "postmodern movement". From this movement, there are some values that have arisen such as: incredulity towards metanarratives, pluralism, incommensurability, local genius,

historicism, feminism, deconstructivism, different paradigms, pro ecology and populism (Lyotard, 1989). Soesilo (2011a) states that populism, as a political ideology or rhetorical style, holds that the common person is oppressed by the "elite" in society, who exist only to serve in their own interests, and therefore, the State needs to be distanced from this self-serving elite and instead focussed toward benefitting and advancing its people as a whole. A populist reaches out to ordinary people, addresses their economic and social concerns, and appeals to their common sense.

3.1 Ontological foundation of postmodern urban planning and design

Ontology is human self-perception, where someone posits his or her self in the constellation of this universe. This perceived position creates a worldview, and different self-perceptions create different worldviews.

Urban planning and design is a part of human culture. It is an effort of humans to be civilized and to create order for the space they live in. This effort is a projection of what they perceive about "who" they are. Every kind of society creates an order of their living space, which will be different from others. Each perception of their selves is what is called ontology, which defines specifically each person's living space. In the 1970s the postmodern movement arose, which impacted every aspect of human life, including efforts to plan living spaces and urban planning and design. Postmodernism gives a place again to traditional worldviews; local wisdom as another "truth" amongst many other "truths" such as modernism. For postmodernism, there is equality amongst these "truths", nothing is superior.

3.2 Local wisdom as the ontological foundation to postmodern urban design in a developing country

A developing country consists of heterogeneous people and heterogeneous communities: the Haves and the Have nots, educated middle-class and low educated low-class, et cetera. The worldview gaps of urban inhabitants in a developing country are widely ranging and varied. That will be one of the differences compared with the modern approach to urban design in the setting of a developed country. In a developing country, cities act as a growth-pole, where industry takes its place and offers a higher income than in a rural agrarian area. This was the trigger of the urbanization phenomena in a developing country. This phenomenon creates a specific urban atmosphere, which needs specific urban planning and design. This phenomenon needs a specific treatment, or if not, means it will be treated with a "developed country approach", that will create what we called "slum areas" and shanties.

Based on Soesilo (2008), the ability to understand and then, the ability to practice postmodernism's value, the conditions of postmodernism must be fulfilled. First, we have to be modern, because postmodernism begins at the time when the late-modern condition ends. Cities do not just have to be modern, but should have been late-modern, before entering the postmodern paradigm. Without passing that episode, cities are set back to the pre-modern condition, hence traditional ritual, but with different cosmology, can now be acted on.

Postmodernism, which gives place again to local-wisdom as the manifestation of plurality, accepts the reality of these gaps and variations of

a city's inhabitants. From this standpoint it will raise a new approach of urban planning and design in a developing country in a way of "not forgetting" the migrants and even "accepting" the migrants as a reality in a developing country and entering this reality as one of the urban design determinant.

3.3 The impact of postmodernism on urban planning and design

Postmodernism offers many values to urban planning and design, as brought about by a broad post-1960s – 1970s shift in sensibilities, and had specific manifestations within the planning discipline. Postmodernism is used as an "umbrella" term and covers multiple ideological transitions in relation to planning and policy manifestations as outlined by Hirt (2005):

- A shift from expert-driven toward participatory processes.
- From a planning view assuming the supremacy of new, "modern" forms toward a view appreciative of historic structure
- From a planning focus on functionalism and efficiency toward a focus on human scale, urbane, and unique forms
- From planning in favor of technologically efficient, functionally separated forms, to planning in favor of more urbane, mixed-use forms

In urban planning and design there are five related aspects of postmodern urbanism within the broader context of the postmodern shift, also outlined by [Hirt \(2005\)](#), as follows:

- A growing interest in participatory planning (in lieu of the former dominance of rational planning performed by value-free experts)
- A search for urbanity, urban identity, and cultural uniqueness (in lieu of the former focus on functionalism, efficiency, and rational organization of urban forms)
- An appreciation of historic spaces, a return to traditional urban forms (in lieu of the modernist belief in the supremacy of new forms)
- A mixing of land uses and flexible zoning (rather than strict land-use segregation).
- The pursuit of human-scale, pedestrian friendly, higher density, urbane and compact forms (in contrast to spread-out, low density and auto orientated forms).

Many urban planners and designers face these problems in developing countries, and as a developing country itself, Indonesia's own urban-scrawl has just begun and a longing for new modern forms, is now on the way.

4. LOCAL WISDOM AS THE ONTOLOGICAL FOUNDATION TO POSTMODERN URBAN-DESIGN IN INDONESIA

4.1 Semarang as a postmodern city

Starting as a colonial modern city, Semarang should now enter the era of a postmodern city. Semarang has evolved with various satellite towns, such as Tanahmas, Bukitsari, Puri-Anjasmoro, Ngaliyan, Tlogosari, Banyumanik et cetera. Those satellites were quite advanced and successful by developing the centres of each (multipolar city), in other zones the industrial centres also grew as separate satellites.

Since the 1970s the turbulence of the human mind has left modernism. The world has shifted from modernity, that has given rise to the ecological crisis, global warming, and humanitarian crisis - including city planning paradigms – and replaced them with a postmodern paradigm that is pro-ecology, pro-people (ordinary-people) and “put(s) people first”. It is also pro local-wisdom and pro-history (Soesilo, 2011b). The postmodern paradigm based on participatory planning and design, invites the community to get involved in urban environmental planning. The commitment of pro-people also realizes the concept of community empowerment and community-based development. Postmodern cities do not *ruilslag* (Dutch, to demolish and build new investment buildings), destroy, displace, nor decay heritage buildings, but integrate them with new district-planning, or just separates them, conserving the old city area and accommodating the desire for new developments in brand new zones, like *La Defense* in Paris. Ultramodern zones can be developed with brand new rules and conduct, while the atmosphere of the most romantic town, the city of Paris with all the cafés, can still be enjoyed. Imagine if people were in Paris and only found a city full of glass and concrete!

By adopting postmodern paradigms and urban development, city residents escape from isolated feelings and alienation, because of modernist arrangements that gave birth to the islands of towers, so that if people wanted to move from one building to another they were forced to use a car like in Jalan Thamrin Jakarta, where people have been alienated in a metropolis concrete and glass jungle. In the postmodern city, the Kaki-5 street vendors should not be evicted in vain, but arranged, organized, and facilitated in a "Semarang Bazar", which is interspersed with a variety of festivals, such as the Warag Ngendhog and Dhugdheran festivals, following the postmodern paradigm which embodies the people in nearly all the city's public spaces. Facilities for pedestrians and the disabled are available and well-kept and beautifully designed in the tropical climate according to the coastal city of Semarang, with special vegetation.

4.2 Performances of postmodern folk art: Society in a postmodern city

In the postmodern paradigm, the ordinary people's art, the mass culture's art, is accepted as part of the reality of a pluralistic postmodernism. Art is not marginalized, but appointed and presented in their distinctive uniqueness. Semarang has cultural events and provides cultural performances together in many public spaces. The social reality of the existence of the ordinary people has been accepted as an integral part of Indonesian culture and society in this developing country, with all its

dynamics. The reality of the greatest layer of the people in a developing country like Indonesia and Semarang is that their needs are actually being met and well-arranged in the city's public spaces and not denied or concealed.

Comfort criteria to inhabit a city for most citizens, based on a survey of the IAP (Association of Urban Planners), includes the quality of the city's layout, the amount of open spaces, the quality of public transport, protection of historical buildings, sanitation, pollution, road conditions, facilities for pedestrians, disabled people, health, education, clean water, telecommunications networks, public services, relationships between people, electricity, and recreational facilities. Because the surveyed criteria were indeed referring to the postmodern paradigm, it's true that the various criteria will be met by running the postmodern paradigm.

The "pro-people policies" means that the ordinary-people have the provision of open space and a pro-history influence toward adequate city planning, which protects historic buildings and assembles them with the new buildings of today. That policy improves the uniqueness of recreational facilities for the city's guests who bring life to the city, which allows sufficient budget to improve the electrical grid, water supply, telecommunications, public services, the availability of subsidies for education, health, and improved road conditions. Available, in good condition and well-maintained facilities, cause investors to invest in the city; the investments open job opportunities for city residents. So there is a chain reaction that always leads to ongoing improvements.

Semarang is not in Yogyakarta, but Solo instead (Yogyakarta and Solo lay in Mid-Java, and were the former municipals of traditional Keraton of the Javanese kingdom, favoured as cultural heritage cities). That is precisely the strength of Semarang. Starting from the functional colonial modern city, Semarang has now moved to being a postmodern city without any constraints. Semarang can develop postmodern art in every corner of the city, developing centres of youth activity that have long been forgotten, so that the children and the younger generation should no longer play in the streets, and teenagers no longer hang around in shopping malls. Youth activity centres which can invigorate postmodern art as well as traditional and modern art rose simultaneously. With the Greenship paradigm, residents and bureaucrats can overview Semarang city as a very large, green landscape in which there can be organized the architecture of residential areas, commercial centres, leisure centres, and centres of education and industry. Not the reverse view, that Semarang city is seen as a scattering of various buildings with the open spaces only as the remnants. With this postmodern green paradigm, 'a Green Semarang' was created with a sprinkling of postmodern artwork that can be appreciated by all the people from many layers. Sculptures, murals and digital works are all included, so the public spaces of the city become very large stages presenting the spirit and passion for the art and the awakening of the appreciation of the youth of Semarang.

Indeed, to achieve the "postmodern Semarang city" the action and determination of the residents is needed. If you come to Yogyakarta, we feel how Yogyakarta people appreciate "the town guests", the tourists. So Semarang residents need to learn about it. and must develop the spirit of receiving guests. For example, traditional songs must be remembered: "*E dayohe teka, e gelarna klasa*" The traditional Javanese poetry which expresses the ontology: "*E dayohe teka, e gelarno klasa, e klasane bolong, e tembela gemblong, e gemblonge mambu, e pakakna asu, e asune mati, e*

guwako kali” meaning to welcome guests, to spread out the red carpet for the guests.

Solo city, which is actually loaded with various symbols as a cultural city, has been able to break the eggs as a city management model that is "fit" as a typology of a cultural heritage city. Semarang city with different typologies, as has been discussed, would seem to solve the other eggs by becoming a model of sophisticated urban management, a postmodern Semarang city.

4.3 Another postmodern chance in Semarang

Indonesia has a great chance to implement postmodern values into its urban planning and design policies. Some postmodern values such as: incredulity towards metanarratives, pluralism, incommensurability, genius loci, historicism, feminism, deconstructivism, different paradigms, pro ecology, populism, and others, can be implemented within policies that benefit ordinary people, the environment, and public interest ([Soesilo, 2010](#)).

4.3.1 Reclamation and old harbour development control

The desire to adopt “the marina trend” (as done in Singapore) by the elite and many developers can be re-oriented to a kind of conservation and preservation solution that can be implemented to many old historical harbour areas. This urban policy can simultaneously control the development of the old harbour area without demolishing the old historical buildings, and control the stopping of the city’s river through the reclamation of the Marina. There, there arises an egalitarian collaboration between the government, the developer, the old building’s owner, the user and the wider community.



Figure 10. The old harbour of Semarang



Figure 11. The old harbour of Semarang

4.3.2 Public space for ordinary people

The city residents of a developing country like Indonesia are very widely spread across many different categories: the elite rich (the Haves), the middle-class, the street-retailer (Kaki-5 vendors), the service worker, the homeless, the commuter, and many others. To manage the reality that there is a “big gap” between “the Haves and the Have Nots”, there must be “pro-people” urban policies. In public spaces, where all the modern facilities are found, where there are malls, hotels, apartments and rental offices, the Government will provide an open space for the traditional Indonesian bazaar as the place for the “street retailers”. This traditional Indonesian bazaar can be an attraction with a cultural agenda for the city; actually it can be a tourism destination too. These “pro-people urban policies” hopefully can bridge the public interest with the elite’s. This policy builds collaboration between the elite, middle-class and the street retailers as well.

4.3.3 The pedestrian centred urban public space design

The pedestrian centred urban public space design, especially in this tropical climate, can allow a comfortable walk in and around a city. This can raise the enthusiasm of people to live healthily in the city. The multi-storey high-rise buildings are linked with each other with sheltered pedestrian walk-ways; they are not standing alone arrogantly anymore. People are infiltrating into the shrubbery and enjoy the tropical gardens in the heart of the city.

5. CONCLUSIONS

Urban planning and design in a developing country cannot tail what others do in a developed country. As a collection of rural migrants, a city in a developing country majorly inhabited by low-income people, ex-rural migrants who have their own ontology, a cosmocentric ontology which differs from the modernist ontology owned by the elite people of the city is required. From this standpoint urban planners and urban designers of a city in a developing country should be aware of these differences and have a deep concern for the local wisdom as the ontological foundation in making

any decision in urban planning and design. The postmodern worldview accepts and appreciates the local wisdom and places it as a foundation in treating people in equality because postmodernism believes in plurality.

Semarang, the municipal of Central Java province in Indonesia is a coastal tropical city, can be a significant example of doing urban planning and design in a developing country with deep concern for local wisdom as the ontological foundation towards a postmodern solution.

REFERENCES

- Hirt, S.A. (2005). "Toward Postmodern Urbanism?", *Journal of Planning Education and Research*, 23, 27-42.
- Hansen, S. (2014). "What does urban planning offer to developing world?", *Sourceable, industrial news & analysis*, 17th February 2014.
- Liotard, J. F. (1989). *The Postmodern Condition, a report on knowledge*. University Press, Manchester.
- Soesilo, R. (2006). *Ruang rakyat Johar (Johar as the public space)*, Harian Kompas Jateng.
- Soesilo, R. (2010). *The Postmodern paradigm In Urban Planning and Design in Indonesia*. Seminar: Reframing Java: Past, Present, and Future" August 3, 2010
- Soesilo, R. (2011). *Populisme Kampus, Wahana untuk Kebangkitan Bangsa* (Populism in campus life, a key to the rise of the Nation), Pidato Dies Universitas Katolik Soegijapranata, Semarang, 5 Agustus 2011. (Dies Natalis Speech)
- Soesilo, R. (2011). *Penelitian: Pengaruh Postmodernisme pada perencanaan dan perancangan kota* (research title : The postmodern impact on urban planning and design), Soegijapranata Catholic University.

Application of Buginese-Makassarese culture in Makassar City, Indonesia

A Reference in the Coastal City Planning

Arifuddin Akil^{1*}, Ananto Yudono¹, Ihsan Latief¹, and Abdul Mufti Radja¹

1. Faculty of Engineering, Hasanuddin University

** Corresponding Author, Email: arifuddinak@yahoo.co.id*

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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

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.

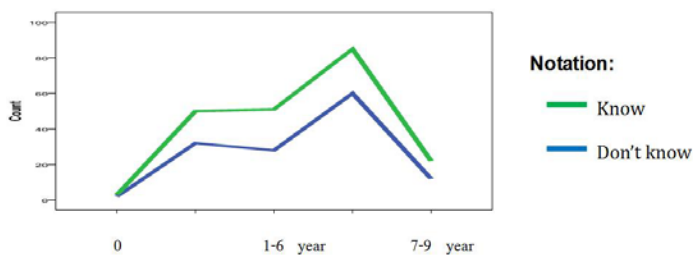


Figure 1. Understanding of *Siri' na Pesse* value based on education level.

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.

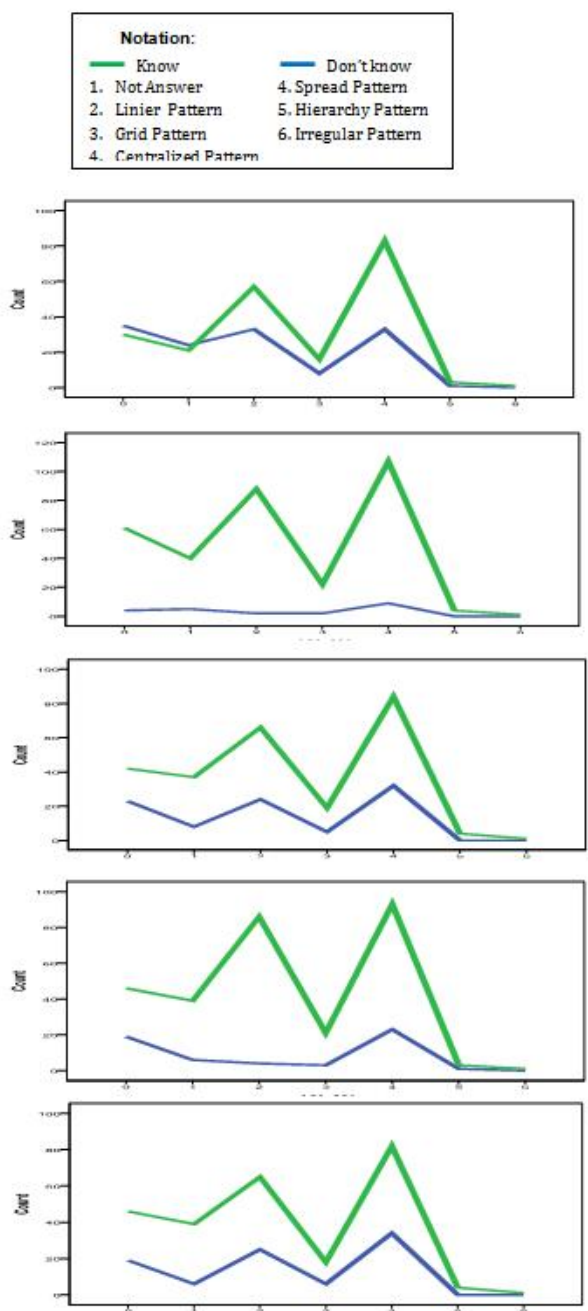


Figure 2. Relationship between cultural values of Buginese-Makassarese and street pattern.

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.

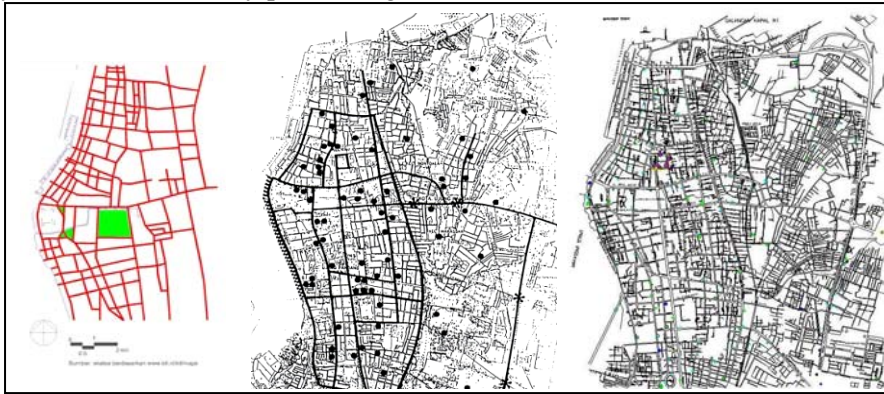


Figure 3. Makassar city street pattern in 1922, 1998, and 2008, patterned grid in accordance with Buginese-Makassarese values.

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.

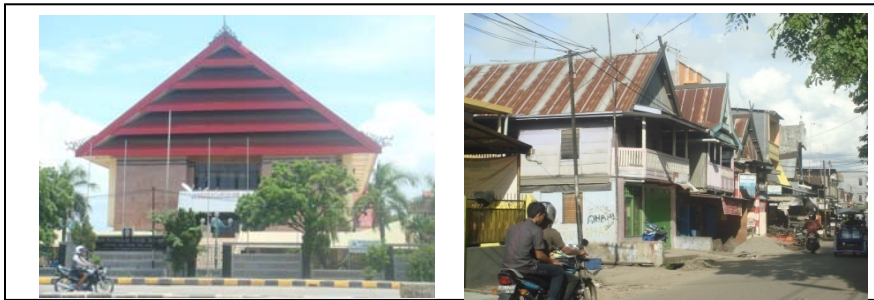


Figure 4. Office of the Parliament and faces of Traditional Houses and Urban Settlements in Makassar city.

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.

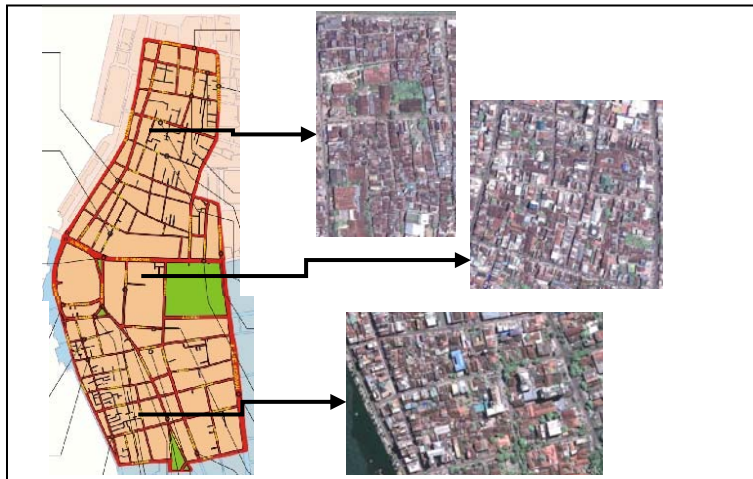


Figure 5. Direction of building orientation in the Makassar city, dominant to the wind and the street lane directions.

Based on the results of interviews with the Buginese-Makassarese community along the Makassar coastal areas, it is found that in general the cultural values that are understood by society still applied on the orientation of the building. The data showed that the orientation of the buildings in the Makassar city is dominant to the four corners of the wind directions, so based on the values of *sipakatau*, *Sipakalebbi*, *sipakainge' siri' na pacce*, and *sipammase-mase*. The detail can be seen in the following Figure 6, below.

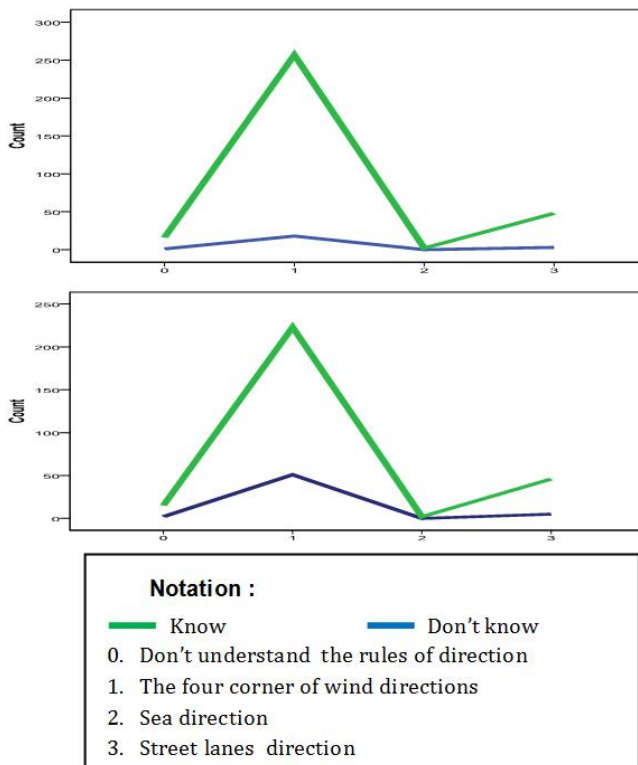


Figure 6. Relationship between Buginese-Makassarese cultural value and building orientation.

4. CONCLUSION

The conclusions of the study are:

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.

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