

The Cultural Biography of Landscape as an Interdisciplinary Tool for Landscape Planning at Banjarmasin City, South Kalimantan Province, Indonesia

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Abstract

During the twentieth century concepts of cultural landscape have been developed that have led to the inclusion of the cultural dimension in landscape studies. The implication of this in landscape planning and management is that planners should not only comprehend the physical dimension of a landscape, but also its social and mental dimensions.

In the case of Indonesia the cultural dimension of spatial planning has been overlooked so far in planning theory and practices. More attention has been spent on economic, political and physical aspects despite the fact that Indonesia is extremely rich in tropical ecosystems, cultural landscapes and ethnicities. Banjarmasin city which is well known as 'Kota Seribu Sungai' or the Thousands Rivers city, has a unique landscape character and has played an important role in Indonesian history. Positioned in a tidal swamp area at the mouth of a river, its location has greatly influenced the past development of the Banjarmasin landscape and its local culture. Previous studies of Banjarmasin city indicated that the preceding urban development did not consider the historical and cultural facts of its waterways. As a result it has caused hydrological problems and the rivers and canals are merely perceived as drainage.

The objective of this paper is to answer the main question: "How can cultural values act as a driving force for future landscape planning, public participation and heritage management in Banjarmasin city?" An interdisciplinary and transdisciplinary approach, in which the study of the biography of landscape, the participatory planning and landscape design have been combined, is applied in the research method of the PhD project presented here. Currently the research is in its early stages and explores the landscape biography of Banjarmasin. This paper covers the research framework and methods where interdisciplinary approach and action research have been applied.

Keywords: landscape biography, landscape planning, landscape history, public participation

INTRODUCTION

Background

Cultural landscapes and their sustainable development have gained growing attention during the twentieth century when urbanization and globalization have undergone rapid growth. The situation caused a large impact on landscape changes that threatened environments and local identities. Furthermore, these phenomena have influenced the understanding of landscape which is not merely about physical landscapes and land use, but also conveys the cultural values of its inhabitants.

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The implication of the concept in landscape planning and management is that planners should not only comprehend the physical dimension of a landscape, but also its social and mental dimensions: landscape as it is or was perceived, managed and used by people throughout history (Jacob, 2006). In reality the cultural dimension of spatial planning is less taken into account in planning theory and practices. Nevertheless, research in order to develop a conceptual framework for cultural landscapes, as well as the development of methods to apply this knowledge into landscape planning and management are carried on continuously (Marcucci, 2000; Von Haaren, 2002).

Regarding the exploration of the cultural dimension integration in landscape planning and heritage management, a PhD research will be developed in the years 2014-2017. Using Banjarmasin city as a case study, the research is conducted to answer the main question: “How can cultural values act as a driving force for future landscape planning, public participation and heritage management in Banjarmasin city?” Currently the research is in its early stages and explores the landscape biography of Banjarmasin. This paper will cover the research framework and methods where interdisciplinary approach and action research have been applied.

The study area: Banjarmasin city

The research area is in Banjarmasin city, the capital city of South Kalimantan province, Indonesia, which is populated by 656.778 inhabitants. The big rivers, such as Mahakam, Kapuas and Barito rivers; and the tropical rainforest are the main natural landscape features of Kalimantan Island. Banjarmasin city is situated in the most southern part of the island, approximately 50 km from the mouth of the Barito River [Appendix 1]. The city has hundreds of rivers, creeks, and canals, and is well known as ‘Kota Seribu Sungai’ or the Thousands Rivers city.

The Banjarmasin landscape is shaped by the interaction of humans and riverine environment over many centuries. This interaction has largely influenced the cultural traditions and historic character of the city. In the past, the Banjarmasin Sultanate had a significant political impact in the island and indeed it was affected by the court’s strategic location in the intersection of the Barito and Kuin Rivers. Thus, the port of Sultanate played an important role as the centre of pepper trading during the Dutch East Indies (Sulandjari, 1991). Furthermore, up to present the locals has used rivers and canals to support their lives such as for transportation, economic activities, and even for bathing and washing [Appendix 2].

Banjarmasin today involves important demographic and economic growth, marked by rapid urbanization and industrialization which have triggered the landscape change profoundly. Rivers and canals have been degraded, many of them were removed for settlement and urban infrastructure development. These activities has changed the city character from a river-based towards a land-based city (Subiyakto, 2004). In the socio-cultural dimension, there is a perception shift of local people from-river-to-land-based culture that probably has been fostered by migrants. These phenomena have not only caused hydrological problems such as urban sanitation and floods, but also threatened the cultural heritage of Banjarmasin.

THEORETICAL FRAMEWORK

The development of a theoretical framework and methodology for this research is supported by several concepts. The concepts emerged from different fields of study, i.e. history, geography, social, landscape and planning sciences. Their interplay has created an interdisciplinary approach of the research project.

The cultural landscape

The cultural landscape concept emphasizes that landscape is shaped by the interactions between humans and their environment over time. In this context, landscape contains tangible and intangible elements which represent the relation of humans and environment. To explore this relation, the Cultural Values Model of Stephenson (2008) will be applied. In this model, humans value the landscape based on three components: forms, processes, and relationships.

Another significant aspect of this concept is the temporal dimension of landscape. Today's landscape is the result of humans-environment interaction in the past. It implies that present interaction will influence the future landscape for the next generation. Therefore, landscape is similar to a cultural product in which the authorship is changing through time. In other words landscape is heritage which has been passed by one generation to another. This perception not only underlays the development of the biography of landscape, but also the paradigm shift in planning and managing landscape as a heritage.

The biography of landscape

The concept of biography of landscape for the landscape history study was first proposed by the American geographer Marwyn Samuels. He argued that people as 'authors' have a main role in shaping a landscape over time. Their own perceptions of space and place or "landscape of impression" influences the way to manage the landscape through organizing physical elements which resulting a "landscape of expression" (Samuels, 1979 in Kolen and Witte, 2007). In this context, landscape reflects the culture of its inhabitants and culture shapes landscape; the change of one side will influence another (Stephenson, 2008). This preposition indicates that landscapes change continuously in time and space.

In the Netherlands, the landscape biography approach is based on the term of 'biography' which is derived from anthropology. It has been adopted to describe the long history of landscape evolution that passed by one generation to another, and therefore experiences modifications and shifts in social context through time (Kolen and Witte, 2007). In this approach landscape is seen as material culture as well as immaterial perception and signification, so that the landscape biography integrates the history of physical landscape transformation in association with the social meanings attached to the landscape. The application of biography of landscape approach for an action research in Drenthe Aa – Northern Netherland has successfully laid a foundation for interdisciplinary landscape research, participatory landscape planning and integrated landscape management (Elerie and Spek, 2010).

Landscape Planning

Landscape planning is an imperative tool "to regulate the relationship between man and environment in landscape" towards a more sustainable landscape (Von Haaren, 2002). This practice attempts to accommodate the interests of society on landscape by focusing on multi-functional use on the one hand, and protect the landscape environmentally on the other. In this research, the practice is seen from two viewpoints. Firstly, landscape planning is considered as a cultural product which contributes to the landscape change (Marcucci, 2000), therefore, it becomes important subject to be explored in the landscape biography. Secondly, landscape planning is an activity with a long-term perspective to solve prevailing problem in order to create a better landscape. Within a planning activity, the application of landscape history or biography of landscape will: (1) enhance inventory because it provides comprehensive information within historical framework, (2) assist planner to identify problem more precisely, and (3) facilitates plan production in analysis and creating solutions (Marcucci, 2000).

Public participation

Public participation is defined as a method to integrate scientific and local knowledge by involving inhabitants and stakeholders at early stages of planning processes (Elerie and Spek, 2010). Involving people in planning, policy making, and implementation is important because these people are in fact the authors of landscapes. Therefore, their inputs could be very beneficial for the landscape planning and management and their sustainability. To do so, it is significant to understand locals' perception on the landscape problem, because it is assumed that their perception could be unlike those of other stakeholders and planners, thus, potential to cause future conflicts.

A 'tri-partite model' will be applied to analyse the different perceptions among stakeholders. This model is based on the work of the German philosopher Jürgen Habermas. It explains that people may see a landscape as three different ontological dimensions, called 'matterscape' i.e. landscape as physical reality, 'powerscape' i.e. landscape as a social reality and construction, and 'mindscape' i.e. landscape as a personal inner reality (Jacobs, 2006). These dimensions need to be identified in order to avoid the misinterpretation of prevailing problem which might be perceived differently by stakeholders, e.g. inhabitants, scholars, and authorities, so that the final solution will be effective and acceptable by all parties.

RESEARCH DESIGN

Research Framework

Figure 1 illustrates a framework to integrate the cultural biography of landscape in landscape planning. The diagram shows that landscape is transformed from landscape *a* to *n* as a result of the interaction between the physical environment and humans or culture over time. Indeed, the landscape also might be changed because of the natural forces. However, humans are considered as the main cause in the landscape change.

Internal and external factors that could be driven by political, economy, social, or technology potentially affect humans' perception and relation with the physical environment. Consequently, the landscape setting was altered based on their new impression of the landscape, which lead to the landscape transformation. The cultural biography of landscape attempts to depict the transformation of the physical landscape related to the phenomena which occurred in the community within a certain period. This information is useful as a source of historical facts in landscape planning and heritage in which to improve issues identification and to influence the plan making (Marcucci 2000).

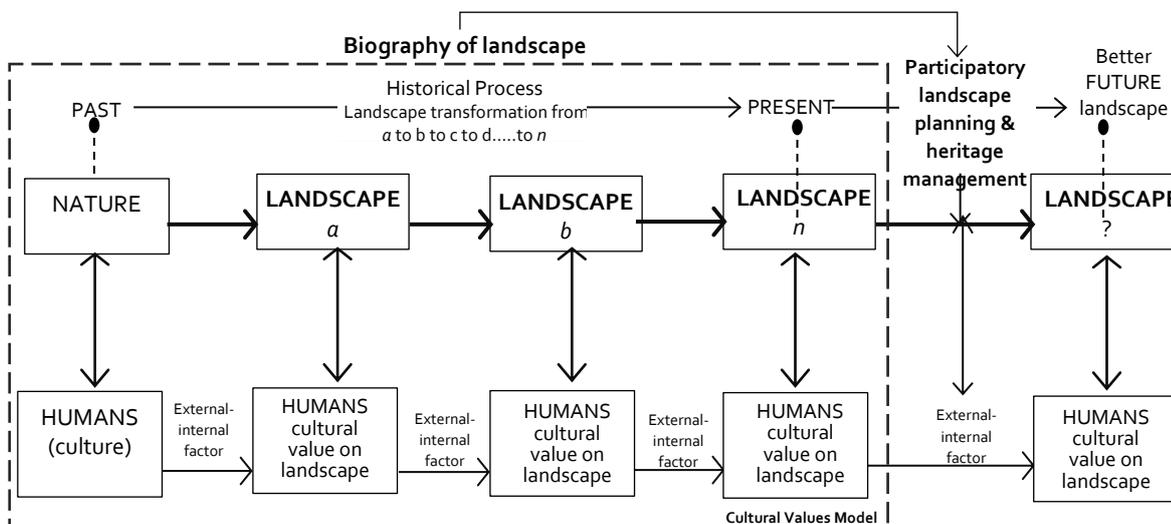


Figure 1. Diagram of research framework which shows the integration of biography of landscape and landscape planning

Public participation in the planning process is widely promoted because it determines the successful outcome of the plan. The involvement of people and their perceptions in this research project will probably provide a better insight of humans-environment interaction and actual landscape problems. Public participation is established in the biography of landscape production where community gives information of how they value landscape which is approached by the Cultural Values Model. Furthermore, in the landscape planning, public participation is conducted by incorporate community's perception and opinion related to landscape problem and their needs. Their perception is analysed using the tri-partite approach.

Geographical and chronological framework

The study area of this research is Banjarmasin city. However, because the historical fact shows the territory of Banjarmasin Sultanate in a certain period reached east and centre Kalimantan region, the study will occasionally go beyond the present city borderline. For the landscape planning and heritage management theme, a specific case study will be selected within the city based on specific criteria such as its location referred to the river, the historical value, and the built environment intensity.

In order to summarize complex data sets into a well-ordered time framework, the biography of landscape initially is constructed in a sequence according to the political history period in Indonesia. The reconstruction starts with the natural landscape of Banjarmasin prior to the establishment of the Sultanate, followed by the Sultanate period (1526-1860), the Dutch VOC administration (1860-1919), the Dutch colonial government and Japan occupation (1919-1949), the old and new order (1949-1998), and the last is the reformation era up to present (1998-2014).

Simultaneously, keystone processes will be identified to derive the historical timeline of landscape change of Banjarmasin city. Keystone processes is defined as "processes which existed in a landscape and significantly will result a new course of the landscape; it includes geomorphological processes, climate change, colonization, patterns and growth of organisms, local disturbance of ecosystems, and cultural processes" (Marcucci, 2000, p. 72). The biography will not only contain a description of physical patterns and processes, but will also relate to the discourse that is connected to these patterns and processes.

Methods

Data collecting and analysis applies qualitative research methods. The historical data to support the landscape biography of Banjarmasin includes historical maps, history of environmental condition, social, politic and economy of Banjarmasin, and town plans. Those data are collected from various sources such as research monographs and articles, archives, reports and historical atlases. Field observations and interviews with experts and resource persons are also conducted to verify the historical facts and to explore the discourse of town development. Indepth interviews, focus group discussion, and participatory mapping are undertaken to obtain cultural values on Banjarmasin landscape. The entire collected data is analyzed qualitatively and spatially.

The next stage of the research is to apply the landscape biography in a participatory landscape planning of selected area which is illustrated diagrammatically in [Figure 2]. A combination of active interview with the community and focus group discussion (FGD) with stakeholders are applied to gain a rich data about landscape perception and aspiration of the selected site, particularly in connection with the cultural values of landscape and the environmental issues. The environmental problem is analyzed using the tri-partite model and linked to the cultural values of landscape. Based on the analysis, several alternatives of conceptual landscape plan produced and proposed in a workshop with stakeholder to select the best one. The selected alternative becomes

the landscape vision of the site which subsequently underlays the landscape development plan. Furthermore, the concept will also be used to elaborate methods and strategies to involve people and increase their awareness in the management of landscape heritage of the selected site.

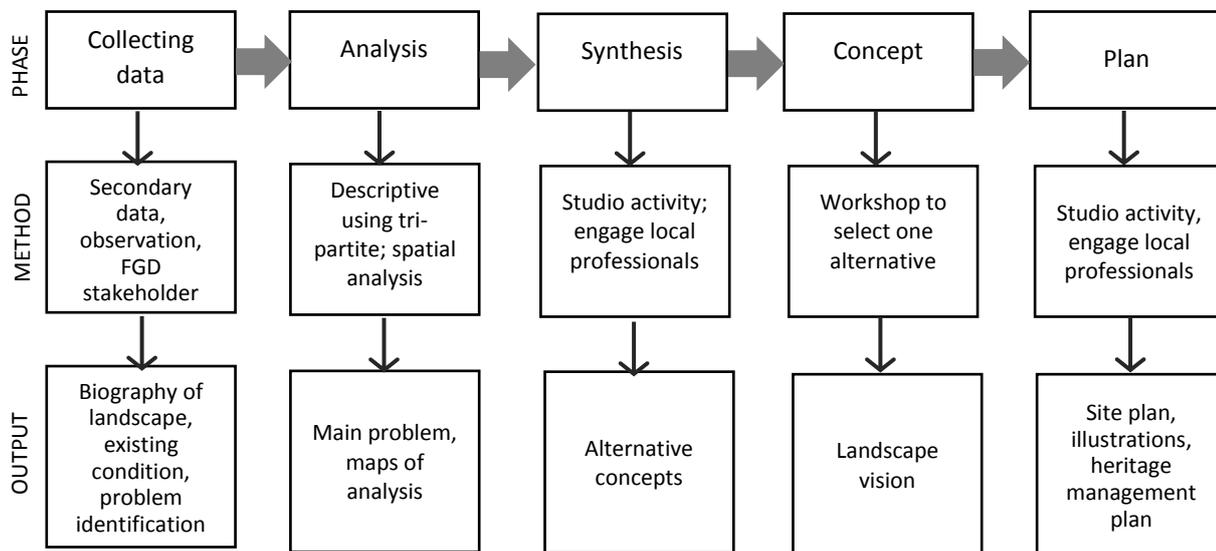


Figure 2. The diagram of participatory landscape planning process in this research

IMPLICATION

This research provides a framework to apply the biography of landscape into the planning process in an interdisciplinary way. The theoretical framework and methods of data collection and analysis in this research are derived from the history, geography, social, landscape and planning sciences. Knowledge exchange among stakeholders through in-depth interviews and focus group discussions in the making of biography of landscape and landscape planning process demonstrate not only participatory approach but also interdisciplinary knowledge between stakeholders.

Regarding the participatory approach in landscape planning, several points need to be concerned. The approach will probably influence the time-schedule of the planning process compared to top-down planning approaches and the duration will increase if the planning covers larger areas because more number of community members and stakeholder need to be involved. However, involving community in the activity is advantageous in several ways: first, it helps planner to identify the actual problems and community's needs; second, it is useful as a source to define place-identity which generated by the community, and finally the plan implementation gain supports from the community and will least to less public protests. Another advantage of this method is that it inspires planners not only to produce a plan, but also to be a moderator of a participatory planning process. They can bridge knowledge and perception among stakeholders and profit from their inputs to produce a widely supported plan that will cause less protests and time-consuming jurisdiction procedures.

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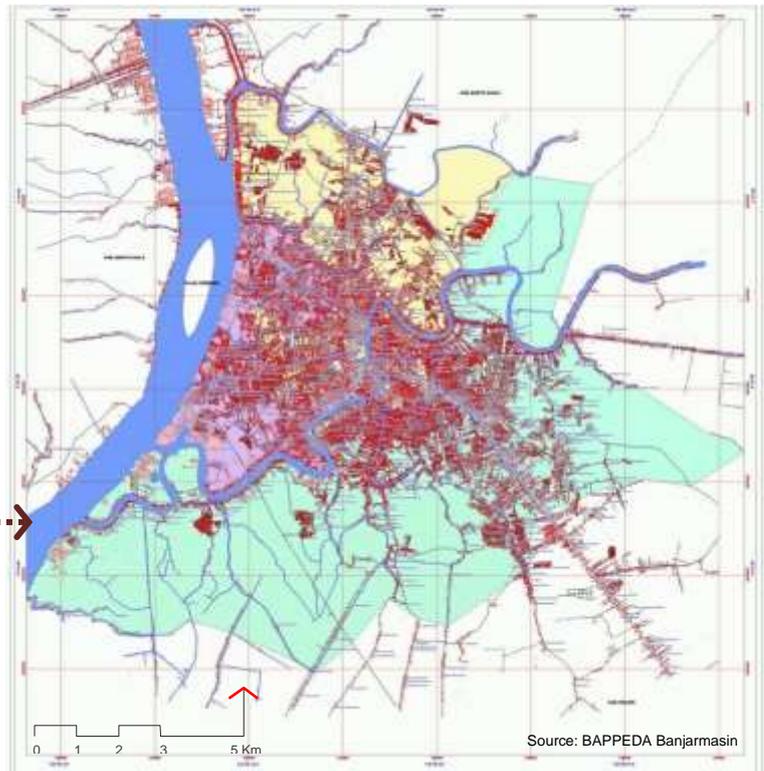
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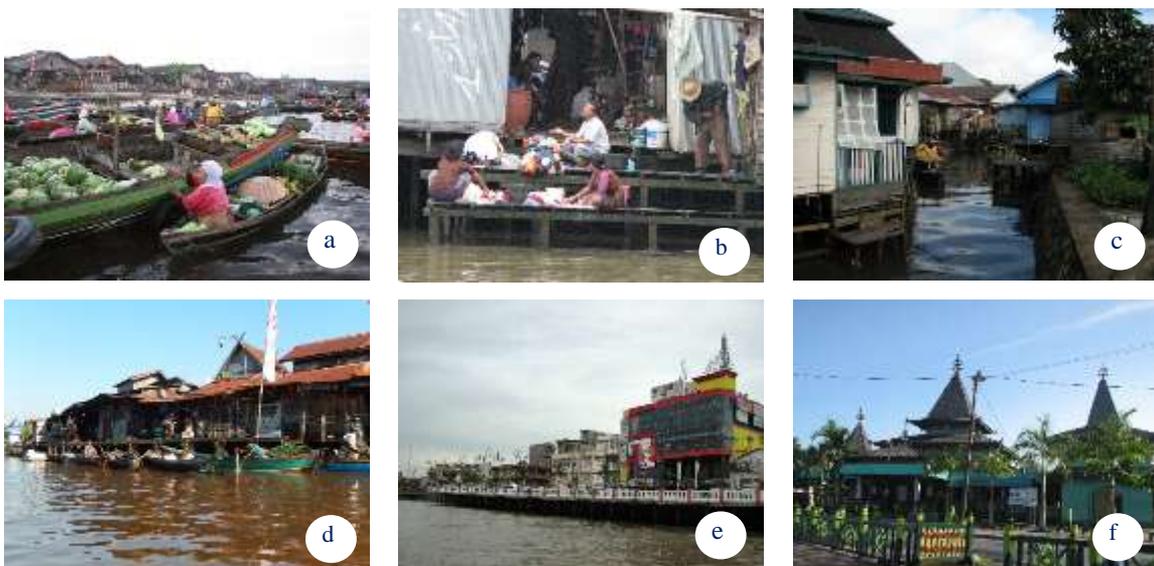
KALIMANTAN



BANJARMASIN



Appendix 1. Location of Banjarmasin city



Appendix 2. Banjarmasin riverscape: a. the Muara Kuin floating market; b. locals' activities; c. canal for transportation in traditional kampong; d. a market in the riverbank; e. a modern commercial area, f. Sultanate graveyard and mosque in a historical quarter