

Research Paper

# Spatial characteristics of Bantik ethnic community in Indonesia

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## ABSTRACT

Settlement development of the Bantik community in Malayang, Indonesia is related to the settlement position to the center of the city that affects the social interaction of the local society. This condition brings many changes especially to the traditional life and settlement of physical change. Characteristics of the settlement are physically hard to find even though the physical trail can be tracked because of the change of the settlement setting from rural society to urban society. Based on that consideration, this research is focused to the neighborhood characteristic through neighborhood activity analysis. The purpose of this research is to find the settlement characteristic through neighborhood activity. The first step is to analyze society's social condition especially family composition. Next, to conduct an analysis of the house characteristic through terrace surrounding development linked with the outside activity. Based on this conducted analysis, the physical development occurs in the settlement. These developments affect the activities of neighbors in the settlement. Terrace and yard are the main space to form the communal activity with free movement without binding other spaces. On the contrary, the little shop has a connection with the yard and the street as related supports.

## 1. Background

Lowland by the year 2030, more than 60 % of the world's population will live in urban areas (Chen, 2014). It is a big challenge for local urban settlements. Structural characteristics of the local communities who live in urban areas cannot be separated from the effects of urban development. Unwittingly, this condition affects the ability of local communities to mobilize its resources. Around 1970s, several studies were conducted to identify and explore variations in collective action and collective identity of the local community.

Other studies on the location of the urban growth suggests that exurban areas, which are located well outside the limits of urban and suburban, have witnessed a disproportionate amount in terms of population growth and new settlements in recent decades. Local communities experience the challenges of the situation, making it difficult to reinvent characteristics of local communities. Neighborhood management (Turcu, 2012) through traditional life is a strategy that needs to be considered in exploring local characteristic so that sustainability can be achieved settlements.

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Indonesia is an archipelago country which has about 13,466 large and small islands (Menkokesra, 2013). Relevant to that Indonesia has about 900 ethnic scattered throughout the Indonesian archipelago. One of them is ethnic Minahasa 0.28 % (Suryadinata, et.al, 2003). The influence of the existence of a particular ethnic termed the local community, coming from various aspects including development pressures of the city. The identity of the local community is lost because of the strong influence that the city cannot be blocked by local communities themselves. Occupancy of local communities is a physical manifestation of the whole meaning of life between human and existential space (Wongphyat, 2008). Reciprocal relationship exists between culture, spatial and activity spawned a new adjustment. This new understanding arose as a form of public tolerance to the development of the city.

This research is a study to the local settlement that experience pressure from the city development. The main purpose of the research is to analyze neighborhood characteristic through neighborhood activity in the physical neighborhood of the settlement. Based on the empirical condition, this research wants to show how the city developments affect to the residential character especially terrace surrounding in the form of communal activity.

## 2. Neighborhood in the city development

The Proximity between the central business district and the settlement has led to many changes in the local Bantik community (Egam, 2014). Social interaction, spatial area and general bond are important points as an approach in neighborhood relation review (Kwack, 2004). Many studies have found on planned detached housing areas. For example, several studies focused on the physical aspect have examined the correlation between neighbor relations, common space use and the influence on the community of the street layout (Saito 2001). Several studies focused on the non-physical aspect have examined the influence on the community by the residents' cooperative possession of a specific space (Saito and Yagisawa, 1999). These studies are creating good results. Therefore residential segmentation is generally thought to reflect a lack of the social interaction in mixed neighborhood, (Lelevier 2013). Therefore residential segmentation is generally thought to reflect a lack of the social interaction in mixed neighborhood, (Lelevier, 2013).

### 2.1 Neighborhood under city development pressure

Developments in the southern of Manado city bring their own impact to the surrounding area, including Bantik settlement in Malalayang. This development happened so fast especially in 1993 when Boulevard Street was operated, built on beach reclamation area as the main road to access the center of commercial area. In the beginning of 1995, mall was started to be built in that area as business region of the city. The position of Piere Tendean Street, known as Boulevard Street, connected to W. Mongisidi Street, passing through the settlement of Bantik tribe in Malalayang. The flow of outsiders quickly comes into the settlement, people who stays in the region of new settlement in the southern part of Bantik settlement. This condition is inevitable because the demand of commercial activity of the city. There was social-mix between Bantik residents and non-Bantik, increase of spatial needs. There was social differentiation in the context of socio-spatial, and interaction context.

## 3. Methodology

The focus of this research is the Bantik tribal communities in Malalayang, Indonesia. Bantik tribal is a sub-ethnic of Minahasa tribal located in the province of North Sulawesi. The condition of settlement characteristic is located in the central business district which continue in the city is considered as the first step. Further analysis of neighborhood characteristics is performed through three aspects: 1) Family composition, 2) House characteristics, and 3) Activity. In this connection, the analysis carried out within the framework of activities of daily living neighborhood-based community.

In analyzing neighborhood characteristics, 30 houses of Bantik family were selected as samples. It is intended to obtain the physical data as well as collaborate with community based development activities encountered data collected through field survey. To get an overview of activities, detailed survey was carried out by means of observation and interviews, as well as distributed questionnaires to obtain a more detailed picture. Framework of this research is shown in Fig. 1.

## 4. Settlement position

The ethnic Bantik community in Malalayang, Indonesia is a local community in Manado city. Settlement location is in the sub-district of Malalayang One, Malalayang One East, and Malalayang One West. Settlement location is situated next to the business

center area of the city, known as B on B area (boulevard on bussiness). This settlement is passed by W. Mongisidi Street as the main road, divides the settlement into two parts, along north-south direction. Northern part is next to the Manado Bay, and southern part is next to general settlement. The general settlement was plantation area of the Bantik society. Residential location of the Bantik people is concentrated to two locations: Around the Minanga Street and Krida Street, exactly in the second layer of a row of houses along the W. Mongisidi Street as the main road, as shown in Fig. 2.

**5. Bantik family development**

Based on the analysis of the growth of the residents, the change rooted from two things: 1) disproportionate residential growth between Bantik people and non Bantik people in the settlement. Population of Bantik people in the study area is about 29.95 %, while this number is decreasing, compared to the population in Malalayang that is about 5.92 %. Composition of Bantik society is constant, it tends to decrease because of the high number of population of non Bantik residents as shown in Fig. 3. 2) The change of family composition. Local family situation is divided into 2 family structures: 1) Husband-wife that comes from Bantik ethnic is about 28.12 % and 2) husband-wife that comes from mix ethnic (Bantik ethnic and non Bantik ethnic) is about 71.88 %. These compositions affect the tribal perspective as shown in Table 1.

Composition of Bantik number in one house varies, 19 % occupied by 1 family, 34 % occupied by two families with parents-children relation, and 6.25 % with brother-sisters relation. Age structure of the head of family is 31.13 % with the age ranges from 60-70 years old. In this age, the family has interacted with the socio-culture neighborhood and involved in the neighborhood change which is affected by the city development. Composition of the amount of family member is 4-5 people, about 37.5 %. Structure of family composition can be described in Fig. 4. This composition is relatively small and balanced with the small increase of residents.

**6. House characteristics**

From the end of 19th century or about the end of 1980s, houses that were built in 1850 had changed. The change started from the replacement of rotten materials, proceeded towards the shape of the building. Based on analysis, 56.25 % of houses are above 70 years old and have found to be renovated at least twice. Renovation

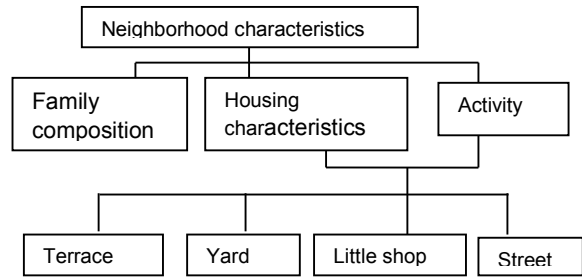


Fig. 1. Framework of neighborhood characteristic.

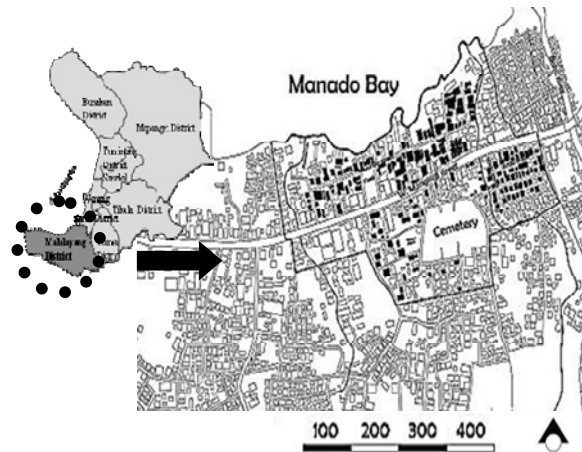


Fig. 2. The study area.

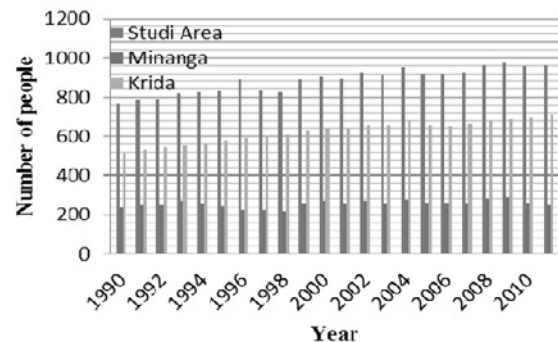


Fig. 3. Population in Malalayang surrounding (Source: Manado in Figure 2009, 2010, 2011, Malalayang in Figure 2010, Survey, 2012, 2013).

Table. 1. Family composition.

Structure of Bantik couple	Account (%)	Sense of Bantik couple (%)		
		Anxious	Proud	Normal
Bantik people and Bantik people	28.12	3.11	15.63	9.38
Bantik and non-Bantik people	71.88	9.38	44.86	17.64

was done to replace the rotten materials like walls and the roof frame. The roof that was made from bamboo and sago palm. The height of the house platform has also

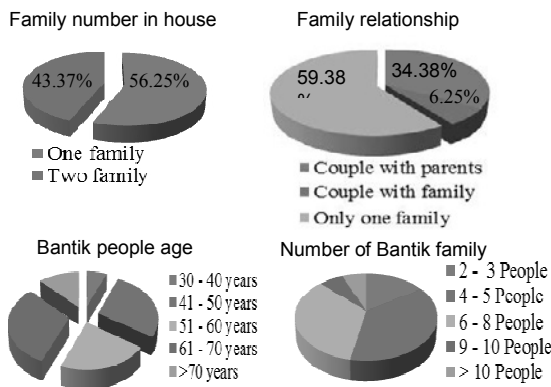


Fig. 4. Status of family structure.

Table 2. History of house development.

	Year	
	<1990	>2000
The stage house about 0.5-1 m.	Began to move from the stage house to non-stage house.	Not stage house.
The stage house < 0.5 m, and not have a terrace. Did not have a massive physical boundary between one hospital to another.	Having a transparent fence about <1m between a house with the other houses.	House has a terrace. Boundary fence between one house to the others more obvious.
Open entrance.	Open entrance.	Open entrance.

changed. Therefore, the house characteristic formed based on shape development. Actually the shape of the house had experienced evolutionary development even though it left physical trail which can be recognized as shown in Table 2.

6.1 House composition

Traditionally housing composition occurs naturally in a standard room based on the needs of the family with the composition of the receiving room, gathering room, bedrooms and the service room, bedrooms and the service room. Housing composition process occurs in response to interaction with the environment. The front of the house as a public area is divided into two parts, namely the parent house and yard page as an introduction between the public space area to site territory, while the terrace is an introduction between the page and the inside of the house. Based on the existing sample, the orientation of the building facing the north south is 74.72 %. These data illustrate that the number of

buildings at the same time with the north-south orientation are more than the number of buildings with east-west orientation.

This is a form of compositional adjustment to the settlement pattern in the form of a grid that divides the residence next into several sections connected by straight roads that penetrate each other. The housing composition is described in Fig. 5. Subsequently, housing composition has a relationship with the surrounding environment as a form of interaction. Furthermore, in relation to the environment, a relationship between the environment and the house through the neighborhood housing activity has been created and implemented in the space surrounding the introduction and liaison between exterior and interior spaces.

The relationship with the neighborhood are described further in following sub-sections to focus several aspects of activities in surrounding housings.

6.1.1 Terrace

Terrace is a phenomenon that comes in the Bantik community local setting, begins as response from social interest to interact with each other. This process happens in a quiet long time, based on the societal needs. In the development based on the period of time and city effect, terrace exists not only as starter room nor transition room between the inside and the outside but terrace also exists as the function transition that has close relation with the activity of the family member. Terrace develops in 3 space growth: 1) culture growth, 2) activity growth, and 3) terrace characteristic, as show in Fig. 6.

6.1.2 Little shop

Permeation of room through commercial function happens in composition that varies according to the change of time. The local name of the little shop is Warung which is an interaction space of neighborhood activity that can occur at any time. It also serves to support of family economy. The little shop position is formed through private function process and turns into commercial function with composition: 1) merge with the parent building, 2) separate from the parent building but still hold the wholeness, 3) separated from the parent building, as shown in Fig. 7.

7. Neighborhood activity

Local community activity happens in some location settings, around the local street in the settlement, yard, and house terrace. Intensity of space usage will depend on the usage type and time. Social transformation that is formed through community activity is implemented in

House composition					
House orientation	Open space orientation	Yard and terrace position in site			
		Free space beside in house	Free space in front and beside in house	Free space in front of house	No have free space
North 30.5%	 8.62% 21.88%	2 House	5 House	2 House	2 House
East 20.4%	 5.25% 9.25% 5.9%	1 House	2 House	2 House	4 House
South 33.48%	 15.03% 2.2% 16.25%		1 House	1 House	5 House
West 15.62%	 3.25% 6.25% 6.12%			5 House	1 House

Fig. 5. House composition.

<1990		1990 - 2000	>2000	
1800 - 1900	1900 - 1970s	<ul style="list-style-type: none"> <li>Social interaction was done in exactly the house page under the tree, either at the house or on the front side of the house.</li> <li>There was a set of people started to make terrace the interaction space.</li> </ul>	<ul style="list-style-type: none"> <li>Terrace is used as a reception room.</li> <li>Terrace is used as socialization space between neighbors.</li> <li>People are starting to build a terrace to complement the core building.</li> <li>Terrace becomes the repository for the motorcycle.</li> </ul>	
				Yard and space were used to gather the neighbors
1970 - 1990				
		Terrace as a culture function	Terrace as a social interaction	
			Terrace as a life style	

Fig. 6. History of terrace development.

many forms of activity with small community composition involving 5-10 houses. These houses are in an adjacent location, so their occurred close communication among neighbors. Activity is done based on the interest of

society, affected by the gathering location physically by creating the link between gathering location and road as public circulation access. These activities depend on the verbal agreement and the presence of witnesses

(Scheffold. et al., 2008). Relation that is created based on the analysis of neighborhood activity which are described further in following sub-sections.

7.1 Street and the yard position

The settlement pattern is in grid shape, so it is very easy to access the relation between neighborhood units. Besides, this pattern simplifies the supervision that is translated in social interaction relation to the local society. Street and yard merge in the importance of the society without being limited by the physical limitation like fences. This thing is created by reciprocal importance between house owners with the outsiders. Relation directly created through permeation of public space to the neighborhood unit territory, then changed the yard into a pattern that merge with the street as shown in Fig. 8.

7.2 Street and the little shop position

The little shop phenomenon starts in the beginning of 2000. The little shop presents in front of house parent building. In a more concrete existence, little shop exists as additional room but has role in function of family economy support. In the context of neighborhood unit, the little shop is an interaction room so it is a public room without limitation, dominated by gathering activity with mix age group with uncertain time. The little shop location spreads in neighborhood spots. Based on the location, the position of little shop describes the scale of service to the neighborhood spots. In the public gathering activity, the little shop is a binding function related to the temporary gathering activity as continuity of shopping activity, and interaction room with socialization purpose of the neighborhood as shown in Fig. 9.

7.3 Street and the terrace position

Linkages of road with terrace cannot be separated from the neighborhood activity role. Thus, terrace cannot stand by its own. In the development, terrace is an additional room that developed from the beginning of 1990. In the process of development, terrace is not only exist as linking room between the outside and the inside, but it is an important room as support of little shop and public activity. Terrace has direct connection with little shop and road also forming public activity room as little shop function support, and semi-public activity as family activity support as shown in Fig. 10.

Social interaction with neighborhood is done as response from the daily needs in form of neighborhood gathering. Three patterns of social interaction happen in neighborhood life: 1) free interaction. This is done by anyone especially for the adults with free conversation

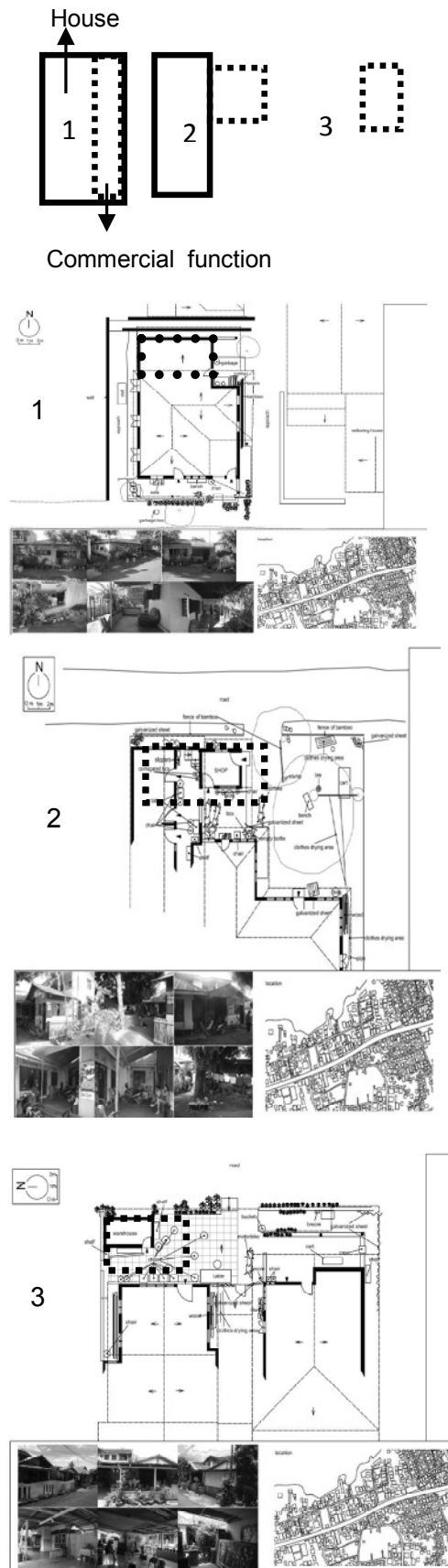


Fig. 7. Little shop characteristics.

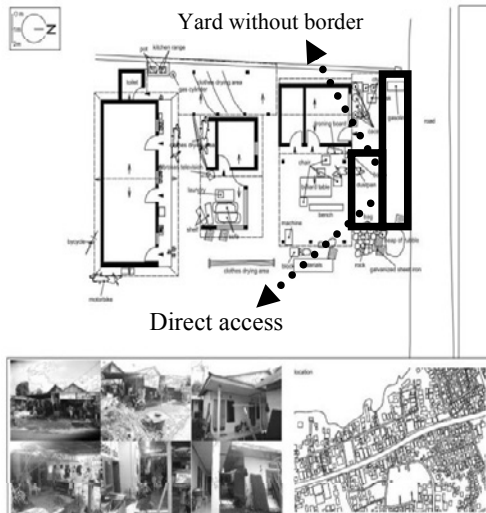


Fig. 8 Street and yard relationship.

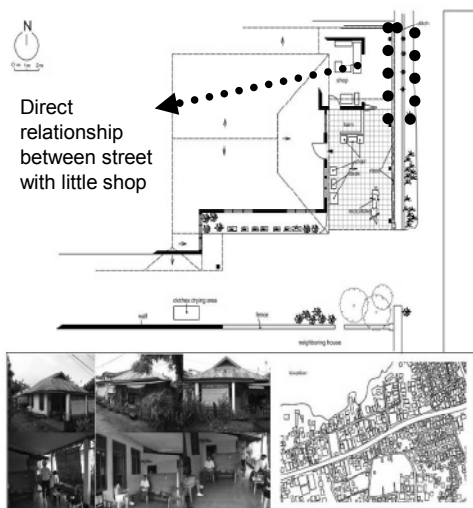


Fig. 9. Street with little shop relationship.

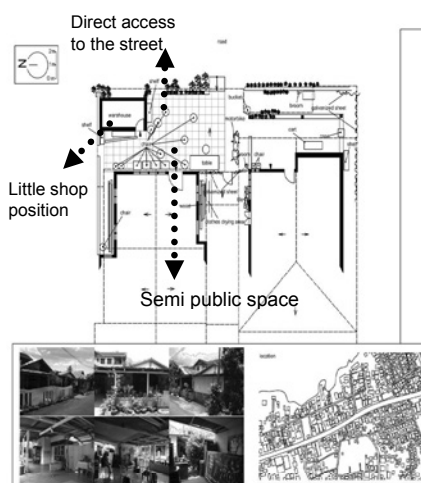


Fig. 10. Street with the terrace relationship.

group of sex and age, 3) interaction with the purpose for certain needs as in limited conversation or to find certain information. In a more concrete analysis, communal activity through gathering with certain purpose, routine gathering, and playing activity by the kids cannot be separated with the binding function like little shop, road, and house terrace. Binding power of little shop is so strong, it forms general activity in the road, road corner, or directly in the road body. Little shop's role penetrates the social culture boundaries and private pleasure that is incarnated in social interaction.

### 8. Discussions

The Bantik family has variety in composition. The composition of mix family in a husband-wife couple is about 75 % who does not automatically erase the local characteristic even though weakening occurs in achieving the traditional life because of presence of ethnic mixture. Residential grouping at least strengthens the traditional life in society through social interaction even though experiences decrease of traditional activity quality affected by mix people in family composition. Neighborhood characteristic focused with family activity has strength from the aspect of communal activity that occurs in neighborhood unit setting. Outside activities that are created in the setting of terrace, yard, and street have a very close relation based on neighborhood relationship even though the orientation and position of the houses vary. Road has a role as public space in the function as access and location connecting path and facility of movement. In that capacity, street holds a role in creating relation to the activity in the neighborhood, also collaborates with house yard and ends in terrace.

Neighborhood characteristic especially in physical aspect of dwelling house actually cannot be separated from the development of local residents and family composition. This thing is much more related to social characteristic with family activity as the base. Next, this family activity forms communal activity from the collaboration of neighborhood unit. While neighborhood activity in housing component aspect that is related with neighborhood relationship formed through building orientation, terrace movement, development of little shop, yard, and street. The strongest characteristics in this study are: 1) group activity forms communal activity that is implemented in terrace as transition space between outer and inner room, 2) group activity forms communal activity that is implemented to yard as connecting space between public space and semipublic space, 3) street activity. While street activity will merge not only with yard,

topic, 2) limited interaction. This is done based on the

but also the little shop so it will form gathering space that develops in yard location and street corner.

## 9. Conclusions

Neighborhood characteristic that is appointed in this study is focused on neighborhood activity that moves from family activity to neighborhood activity in the setting of neighborhood unit. The growth of non-Bantik residents and mix of the residents in the settlement neighborhood brings its own consequence in finding the settlement characteristic. It is realized that the settlement characteristic that exists now is an evolutionary form that has developed with many intervention like the mix of residents, city development and society's needs. Neighborhood activity that exists now is quiet significant to describe the local settlement neighborhood characteristic, even though it has been modified in the aspect of building component development like terrace and little shop. This thing is realized by the needs of the family, but it still has a very close relation especially for communal activity.

In family activity, there is no habit that is binding, so the neighborhood activity is focused to communal activity. This activity is formed by some house units, then it forms gathering activity in terrace and yard, as core space activity. Communal space begins with activity movement in the street as public space which is also steering and direction access. Terrace and yard are main spaces in forming the communal activity with free movement and not binding the other spaces. On the contrary, little shop has relation with yard and street as supporting access that is related to each other in creating communal activity without being limited by the space hierarchy.

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## References

- Chen, Q., Acey, C., and Lara, J.J., 2014. Sustainable futures for Linden Village: A model for increasing social capital and the quality of life in an urban neighborhood. *J. Sustainable Cities and Society*, **14**: 359-373.
- Egam, P. and Mishima, N. 2014. Spatial development of local Bantik community in Malayang, Indonesia. *J. Civil Engineering and Architecture*, **8** (3): 354-354.
- Kwack, D., 2004. The aspect of residents' evaluation and community forming. *J. Asian Architecture and Engineering*, **3** (2): 311-318.
- Lelevrier. C., 2013. Social mix neighborhood policies and social interaction: The experience of newcomers in three renewal development in Fence. *J. Cities*, **35**: 409-416.
- Menkokesra, 2013. Di Indonesia ada 13.466 pulau bukan 17808, <http://www.menkokesra.go.id/content/di-indonesia-ada-13-466-pulau-bukan-17508-pulau>.
- Saito, H., 2001. The Study on impact of street layout affecting community development in the planned detached-houses area. *City Planning Review*, **32**: 475-480
- Saito, H. and Yagisawa, S., 1999. The study on landscaping and community development by utilizing common spaces in detached houses areas-Residents' evaluation on planning and management of the detached houses areas which have common space for parking. *Urban Housing sciences*, **26**: 117-126.
- Schefold, R., Naas, P.P.J.M., Domening, G., and Wessing, 2008. Indonesian houses. KITLV Press, Leiden, Second Eds.: 629.
- Suryadinata, L., Arifin, E.N. and Anado, A. 2003. Indonesia population's: Ethnicity and religion in changing political landscape. Singapore: Institute of Southeast Asia Studies. *Population Review*, **42** (1-2): 45-46.
- Turcu, C., (2012). Local experiences of urban sustainability: Researching housing market renewal intervention in three English neighborhood. *Progress in Planning*, **78**: 101-150. <http://dx.doi.org/10.1016/j.progress.2012.04.002>.
- Wongphyat W., and Suzuki, H., 2008. Spatial analysis of traditional Thai dwellings in the Phrapradaeng District. *J. Asian Architecture and Building Engineering*, **7** (2): 225-232.