## ECONOMIC INTERACTIVE SPACE: AN ADAPTATION OF COMMUNITY RESILIENCE MECHANISM IN AN ENCLAVE SETTLEMENT

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#### Abstract

The rapid urban growth at the periphery area developed by residential developers impacted on the socio-spatial segregation between new and pre-existing indigenous settlements. One phenomenon is that many indigenous settlements are enclaved in the new settlement area. Changes in landscape and environment around indigeneus settlement are occured as a result of a pressure. It is the main factor for suddened changes in the pattern of livelihood of enclaved settlement inhabitants. This article is intended to explain the findings on how the inhabitants of enclaved settlement respond and survive to these changes and pressures in the spatial context. The study employed descriptive analysis method by observing the characteristics of settlements by focusing on the quality of inhabitants' life related to the spatial changes and segregations phenomena. The results of the study highlight that the spatial changes and the survival community are a form of adaptation procces to get economic benefit by making changes to their lands or buildings because of the residential development in its sorrounding. phenomena resulted in These the emergence of economic interactive space in the specific spatial arrangement.

*Keywords*: enclaved settlements, economic interactive space, adaptation

#### INTRODUCTION A. Background

The rapid urban population growth is a global issue that is currently being discussed by experts from many scientific disciplines. As an illustration, in 2014 the population living in urban areas had a greater percentage of 54% compared to the population living in rural areas which was 46%. It is estimated that by 2050 the number of people living in urban areas (large, medium, and small) will reach 60% (UN DESA, 2014). The urban growth is not only focusing itself on the growth of large urbanization rate every year, but it is also including the process of deor re-urbanization. urbanization The phenomenon of re-urbanization is indicated by the direction of urban growth horizontally to rural areas surrounding the big cities. This trend affects the cities in developing countries, such the as Tangerang region as the impacted area by the growth of Jakarta.

Currently, the urban growth in the neighboring area is mostly undertaken by the large and private developers with profit-oriented more economic mechanisms. In the process, the developer carries out land acquisition, builds construction facilities, and constructs infrastructures that support the settlement. by using market new mechanism without being based on the master plan. The process of current

#### **LivaS**: International Journal on Livable Space Mohammad Ischak, Bambang Setioko, Dedes Nur Gandarum

condition implies that the developer usually prepares the master plan after obtaining the land. The phenomenon related to the mechanism established by the developer gave rise to the impacts, one of which was the emergence of enclaved settlements (Ischak, et. al., 2018). In the subsequent developments, the existence of the enclaved settlement revealed social and spatial segregation in the form of dividing walls entails to the separation of settlements socially and spatially.

Interestingly, the residents' conditions of enclave settlements do not experience pressure due to the isolation of the settlements and the changing physical landscape around them. This condition raises the research question of how do the residents of the enclave settlements respond to the changes in the landscape around the settlements. Is there an adjustment mechanism in spatial terms that reflects the efforts of residents to respond, to defend, and to resolve against changes in the surrounding environment?

To examine these problems, this study seeks to explore the socio-spatial potentials that are still existed and held by the inhabitants in the enclave settlements. To get an overview of the occupant's mechanism in making spatial adaptations around their houses, which enable them to survive is an indicator of resilience that can be observed within the community level (Kelly, 2015).

## B. Literature Review Segregation

Currently, the term segregation is one of the topics that is widely discussed and researched in relation to the urban growth, both in the context of growth within cities and as a result of urban expansion into the periphery in the form of urban sprawl. Social segregation will always be related to spatial segregation, due to the impact of the same process. Spatial segregation will occur if there is a spatial separation between groups of people with different backgrounds, which in turn gives rise to social inequality (Van Eijk, 2010). This is consistent with many research results in almost all major cities in the world, whether they occur in the city center or suburbs.

In the context of urban expansion into areas that previously had the character of rural life, often the phenomenon of segregation was due to planned settlement that developed by the developer (Winarso, et.al., 2015). The development of planned settlements within the framework of developing suburban areas creates socio-spatial segregation between indigenous and migrant populations (Dascalova & Slaev, 2015). The phenomenon of the occupancy expansion of metropolitan cities to suburban area resulted in the social segregation due to the new settlements in the form of gated communities (Tedong, et. al., 2014; Michelini & Pintos, 2016; Zhao & Zhang, 2018). From the results of the previous studies, it can be concluded that the segregation phenomenon is an impact of exclusive settlement which does not provide connection with the preexisting settlements. Social segregation arises because there is a clear separation of social class in which the new settlement occupied by middle and upper economic status. Whereas, indigeneous settlements are dominantly inhabited by the lower middle economic status of the villagers.

## Adaptation

The form of adaptation carried out by individuals or communities is dynamic and different from one environment to another, because one of the characters of adaptation is very dynamic (Thorn, et.al,

#### Vol. 03, No. 2, August 2018: 92-103

Economic Interactive Space: An Adaptation of Community Resilience Mechanism in An Enclave Settlement

2015). The dynamic form of adaptation can be observed: 1) through the results of research that examine the material being changed, because adaptation can arise in the form of changes in patterns and types of work (Cobbinah, et.al., 2015); 2) by changing the spatial within individual or community control (Suprapti, et.al., 2017); 3) by modifying the use of social space (Strauch, 2015); 4) by changing social institutions (Gomes & Hermans, 2017); 5) by adapting daily social and economic life in certain environment (Wijayanti & Pratomo, 2016); 6) by modifying activities in the interior of the house (Waters & Adger, 2017); and 7) by shifting the private function of the house into social one (Khadiyanta & Dewantari, 2016).

The dynamic character of adaptation can also be demonstrated through the users of spaces, because adaptation can take the form of many levels from individual to community (Waters & Adger, 2017). To respond to changes in external conditions, the community can develop specific adaptation mechanism according to their culture (Chaplin, et.al, 2016), or individual and community from a common vision to response to the external pressures (Chiang, et.al, 2014). Adaptation must also be supported by social factors, especially values that are still held by the communities, such as the culture of social interaction (Ischak, et.al, 2018), or other factors such as economical, political, institutional, social, and natural conditions (Kellv. et.al. 2015). Social-Economic activities that are periodicaly conducted in regular schedule and related to religious ritual tend to generate the cyclical spatial changes (annualy, weekly and daily) which manifested in fluid, elastic and changeable spatial patern (Puspitasari, 2018). It can be concluded that adaptation is basically individuals or community's responses against external pressure to survive in the form of activities, behavior,

and space, either individually or collectively.

#### Community resiliences

In the context of the enclave settlements resilience, the efforts towards survival are not only related to the occupants, but also concerned with the community of residents. These conditions underlie the emergence of the term community resilience (Adger, 2000; Kelly, 2015; Lier, Sagala, et. al, 2015). The 2015; supporting factors to the success of community resilience are strongly influenced by many aspects. Prat (2015) stated that if local social capital is combined with economic culture and place identity, the formation of community supportive survival is а strategy. McManus, et.al, (2012) and Wilson (2012) added to the aspect of sense of community, in addition to economic factors and environmental quality.

#### Socio Spatial

Socio spatial is the formation of space caused by social activities occurred in a particular environment (Wibawa, 2014). Based on this definition, the socio-spatial review in this study is very important because one of the aspects analyzed is the character and type of social activities of the inhabitants. Hillier and Hanson (1984) stated that interaction among individuals in a community is basically a correspondence model, which requires physical regulation of the space in allocating houses, neighbors, cities zones and appropriately accommodating social categorizations such as families, interest groups, and specific communities.

According to Levi-Strauss (1972), spatial order reflects social structures, and shows the existence of a relationship between space and social life. This was added by Hiller & Hanson (1984) which stated that social life in a region and in the context of settlements in architectural studies cannot be separated from the study of space, because basically the architectural ontology is space interviews, and questionnaires. Systematics and research steps are carried out with the scheme illustrated in figure 1:

Observations and interviews were carried out by taking the case of commercial



Figure 1. Research steps scheme

## C. Novelty

From the review of literature, there is connectivity between the themes of segregation, adaptation, and resilience. Nonetheless there is limited research that specifically links to the themes of adaptation, resilience. and its implementation to the spatial structure of commerical houses combined with a culture of social community interaction in the context of enclave settlement. Therefore, the purpose of this paper is to examine the mechanism of community adaptation in the space of commercial house.

## METHODS

The conducted study was descriptive analytical methods with a qualitative approach. The data were collected directly from the field by means of observation,

that used as stalls, especially houses food stalls. The information related to current changes of space and house function into various stalls made by the homeowners. Interviews administered to visitors, both as buyers and as the passerby in the area around the stalls. Additional interviews were conducted to those who are considered as community leaders, namely RT heads and religious leaders, in order to get a general explanation of the occupants' values. The information units from interviews and observations are linked to the development of morphology at a macro level (after PT. Summarecon held a land acquisition around the locus up to the construction of planned settlements) in order to explore the external pressure received by enclave resident's settlement.

#### DISCUSSION A. Research Locus

#### Vol. 03, No. 2, August 2018: 92-103

Economic Interactive Space: An Adaptation of Community Resilience Mechanism in An Enclave Settlement

The study was conducted in RW 03 Medang Village, Pagedangan District, Tangerang Regency. Today, the research locus is known as Medang Village, and it is one of the enclave settlements located within the land owned by PT. Summarecon which develops the new town of Gading Serpong (figure 2). villages to refer to settlements within and around the new town of Gading Serpong, including the locus of study that has the name of Medang village. Some experts refer to this area as peri-urban or semiurban based on the overview of socioeconomical and ecological regions. In some cases, experts define sub-urban as



Figure 2. Research Locus at Medang Village, RW 03 Medang Village, Pagedangan District, Tangerang Regency.

## Source: modification of Google Earth, 2018

#### **B. Space of Economic Interaction**

The spatial changes phenomena at the research locus cannot be separated from the growth of the city which has influenced the rise of a very distinctive area and the changes of inhabitants' occupation who have settled before. This is due to the convergence of territorial characters of the new town Gading Serpong growth (planned settlements), which is directly related to the rural character (unplanned settlements) of enclave settlements.

The enclave settlement is a mixed of ruralurban characters that can be seen as the characteristic of urbanization process and the evolution of village areas. The nuance of rural is represented by the naming of a combination of population and economic growth with the expansion of urban space (Ricci, 2016).

The condition and location of the adjacent locus are different from the settlements at the locus study compared to other unplanned settlements. The differentiating factor is the emergence of external economic opportunities that are actually by the residents of obtained the unplanned settlements as a result of changes in the land use of planned settlements around it. It can be said that this phenomenon is a positive impact caused by the development of a new city of Gading Serpong which is directly or indirectly perceived by the enclave settlements residents in and around it.

This shows that in addition to the impact of segregation, the location of the confined settlements has some advantages and positive values for the inhabitants associated with morphological changes.

Although the location of unplanned

the village dwellers have run the commercial house themselves which have generated income as illustrated in figure 3.

Referring to the number and type of businesses, the character of the



Figure 3. Commercial houses distribution mapping

settlements, the village, is confined with the limited access, the morphological changes around it affect changes both directly and indirectly due to the inclusion of new functions. One of which is the number of changes in housing function from living into commercial one. Direct influences cover the need for formal employees in the new settlements to meet the low price of food stalls. Thus, it can be understood that in the past 5 - 10 years, circulation path was directly related to the study locus. On the main route that divides the residential center of Medang Village, there are now many heterogeneous food stalls. The food stalls ranges from those provided for children, adolescents, to adults. There are at least two things that are most likely to generate the emergence of many and varied quantities of commercial functions. Vol. 03, No. 2, August 2018: 92-103 Economic Interactive Space: An Adaptation of Community Resilience Mechanism in An Enclave Settlement



Figure 4. The linear distribution pattern of commercial houses along the neighborhood streets

Firstly, the existence of the main road lane is basically a trajectory of several villages outside the region towards the main activity centers. Even though, it is in the form of an enclave, in its daily life it is still used as a trajectory of people outside the

As an illustration, the number of 350 students from Mutiara Insani kindergarten, elementary, and junior high school students coupled with 180 students from Miftahul Huda Madrasah Ibtidaiyah which



Figure 5. Commercial facilities distribution as the impact of the development of educational and sports facilities

village, as the target of buyers from the community members. The result of the pattern being formed is a linear one (figure 4). Secondly, there are large social and public facilities (schools and futsal fields) used generate which are to the emergence of stalls SO that their appearance can capture the market opportunities of the school students along the main road of the village (figure 5).

can be used to portrait the possibility of generating income. The presence of students and parents coming from areas outside the village initiates the growth of business functions. Miftahul Huda Madrasah Ibtidaiyah School is a new building provided by the developer because the location of the school is within the range of the acquired land by the developer. Because the planned settlements have not been completely developed by PT. Summarecon, the emergence of a function or designation of a house other than as а residence, does not demonstrate a direct relationship with the planned settlement around it. The function that is currently taking place in relation to the planned settlements in the vicinity is by the the food stalls consumed construction workers.

There are two economic opportunities captured by the enclave settlements residents that are relatively close to the center of economic activity, namely internal and external economic opportunities. Internal economic opportunities are caused by the needs of the village settlements inhabitants. Thus, the scale and target of the service are in the scope of the village. The external economic opportunities are caused by the needs of those who are not only limited to the enclave settlements inhabitants, but also to the areas outside the settlement. Both types of economic opportunities appear to have different functions as well.

One type of commercial activities that indicates direct linkages of the community response to the emergence of planned settlements is the presence of food stalls. However, there is not all food stalls belong to the enclave settlements inhabitants, some of which are rented to those who are not inhabited there. The enclave settlements inhabitants as the owners of the land and food stalls have got many profits because many outsiders have buildings rented the to conduct commercial business. In general, the process can be described as follows: Gading Serpong new city development invites employees, especially informal workers and low-paying formal workers who need daily cheap stalls that are affordable to their income.

It can be concluded that morphological changes, i.e. the funcion of the house in unplanned settlements. In this case, the commerical house is basically the formation of phase 1 as an adaptation of the residents in terms of capturing economic opportunities caused by the development of new settlements. Regarding the details of the building layout, the function of the existing commercial house architecturally is divided into twofold. First, the house that is originally designed as commercial places, such as food stalls and workshops. Second, the house which has undergone modification of its terrace and it is used as a commerical place.

# C. The Form of Socio Spatial Caused by Economic Interactive Space

The study of social activities and interactions in terms of commercial houses discovered two models of sociospatial configuration, namely internal socio-spatial on the micro and mesoscales involving external neighborhood and external socio-spatial. This can be done on the macro scale involving actors from outside the environment, especially buyers as actors in the new settlements. Thus, the configuration model that occurs is related to the user or buyer, namely from the neighboring scale, village scale, and regional scale which includes planned settlement areas.

The formation of socio spatial which is triggered by the economic activity is closely related to the *ngariung* culture that is still existed among the inhabitants. *Ngariung* means gathering while chatting among the community in a relaxed atmosphere. An interesting phenomenon found in the field is that almost all food stalls, both small and large stalls in front of the house are always equipped by simple Vol. 03, No. 2, August 2018: 92-103Economic Interactive Space: An Adaptation of Community Resilience Mechanism in An Enclave<br/>Settlementfurniture in the form of bale that canowned, even though it is far from<br/>home, and rented to others.



Figure 6. The outer space of warung used for buyers to chats

In socio-spatial context, the the phenomenon of the number of commerical house can be interpreted as follows: socio-spatial is formed following changes or developments in the designation of buildings which are basically a response to changes in the macro environment i.e., the existence of planned settlements. It is indicated that there are adaptation of building functions while incorporating social values, namely the culture of interaction into the spatial structure of the commerical house. Therefore, the community implements the form of adaptation in terms of social and spatial context.

## D. Spatial modification as the adaptation of mechanism

Spatial implementation as a response to the economic potential of the inhabitants can be concluded into four types, namely:

- a. Type 1: New building utilizing the land owned (usually close to a house), and solely used to increase income.
- b. Type 2: New building utilizing the land

- c. Type 3 : Modifying residential buildings as commercial spaces and solely used to increase income
- d. Type 4 : Modifying residential buildings as commercial spaces and rented to others.

From the four types of modification that functioned as economic (commercial) spaces, specifically type 3 reveals more adaptation by modifying the space of the house and adding new functions. Chronologically, the process of adaptation can be perceived through the scheme (Figures 7a, 7b, and 7c) below with the following sequence:

- Figure 7a. The layout of the original residential building is almost typical, i.e. the arrangement of the terrace space, the living room which has double functions with a family room, and the service room.
- Figure 7b. Adaptation 1, the commercial space is inserted because there is a vacant land in front of the house which is located in the main circulation path.

Figure 7c. Adaptation 2, the addition of bale elements or tables in front of the commercial functioned space to accommodate the culture of interaction as the social value of the study locus. In this condition, there is a modification of level 2 which is combination of а adaptation and the addition of functions with adaptation and the values of the society, viz., and the culture of interaction.

main street the commercial buildings are rapidly developed.

d. Spatially, the response is basically a spatial adaptation as a reflection of inhabitans' response to changes in the surrounding environment.

It can be concluded that social values will always emerge in the efforts of a community to respond to external pressures, by utilizing economical benefit opportunities. The community's response to this form of pressure and opportunity is unconsciously emerging in the form of spatial activity viz. by modification mechanism of the space and building in



Figure 7. The types of spatial adaptation

## CONCLUSION

The following findings can be used to answer the research questions from this study, namely:

- a. The presence of planned settlements that promotes social and spatial segregation actually creates positive perspective in the form of economic opportunity.
- b. Due to the relatively short distance to the centers of activity in planned settlements, this economic opportunity is captured by the inhabitants in the form of modifying the land and buildings owned.
- c. The response of the inhabitants can be perceived from the change of designation, where along the linked

which they live.

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Vol. 03, No. 2, August 2018: 92-103 Economic Interactive Space: An Adaptation of Community Resilience Mechanism in An Enclave Settlement

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