Development of Urban Space Based on Student Migrants in Bandung City, Indonesia

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Abstract: Transformation is a total transition process from a form into a new figure which can be interpreted as the final stage of a process where space and time become greatly affect the changes to the ultimate stage. Changes are done by giving the response of the influence of external and internal elements that will lead to a change of shape that has been known previously. The title of “education city” to the city of Bandung past of history of its establishment. Education in Bandung began to show its development since the establishment of Hollandsch Inlandsche Kweekschool, shortened into HIK48, on May 13, 1868. It was established by some important figures, among others, were R. H. Muhammad Musa. Meanwhile, higher education began to grow since the establishment of Technische Hoogeschool (abbreviated as THS) in 1920 as part of the Ethical Policy of the Dutch Government to its colony. So since then, the life of higher education in the city of Bandung continues to grow and increase. THS is a forerunner to the birth of Bandung Institute of Technology (ITB now). The purpose of this study is to establish the theory that can explain how the transformation of urban space in Balubur Tamansari in Bandung City, so it can be seen adjusting the physical setting of the region as the city’s identity. The research method used was a qualitative grounded theory research method, the approach is focused on the discrete phenomenon in the field in order to disclose the meaning of the background of the city region space. This phenomenon was appointed through a process of snowball sampling. The process of data collection, analysis and theory building will be done at the same time in a period of time and iterative of process. This research generates knowledge building based on the knitting of the value system, the activity of perpetrator and physical setting in the region.

Keywords: transformation, education, value system, identity

1. Introduction

1.1 Background
Population growth in developing countries has been rapidly increasing [1][2][3][4], with the existence of migrant students [3] being one of its contributors. The condition causes a high demand for the fulfillment of students’ living space, whereas the available space supplied by universities (dormitories) is not proportional to the students’ needs. Hence, the housing supply is delegated to the community around campus [3]. On the positive side, such a condition triggers economic growth around campus; nevertheless, it gives a negative impact on city development marked by the growth of densely populated
enclaves and a shift in the function of residential into student housing. This phenomenon takes place in almost all big cities in developing countries, including those in Indonesia[3][5].

As one of education cities, history shows that education in Bandung has flourished since the establishment of the Dutch Indigenous Teacher Training School (Hollandsch Inlandsche Kweekschool, shortened into HIK48) in 1868 [6][7][8], which served as the pioneer of university life started in conjunction with the movement of the Dutch Indies’ capital city from Batavia to Bandung in the beginning of the twentieth century, more precisely in 1920, when Technische Hoogeschool (THS) was founded. Later on, after independence, around 1959[8], Engineering College was founded as part of the Engineering Faculty of the University of Indonesia that was the seed of the establishment of the current Bandung Institute of Technology[6][8]. Since then, education life in Bandung city has grown rapidly. Bandung City Central Statistics Agency recorded that in 2012, there were 168 higher education institutions in Bandung City[3][9], 11 of them stated higher education institutions and 8 of these state institutions were located in Northern Bandung area. This clustering of higher institutions is one of Bandung peculiarities.

Balubur-Tamansari area as one of the most rapidly developing areas originally had a structure of a rural (hereinafter referred to as kampong) and has transformed into a densely populated one marked by the transformation of 80% of the houses there [3], both partially and thoroughly, into student housing. One of the phenomena in this area is the agglomeration of student and residential housings so that student housing becomes an inherent part of the residential zone. The activities taking place there are integrated as well.

Discussing the phenomenon of student housing in Balubur-Tamansari Area, Bandung City, is inseparable from discussing the area itself. It is one of the 6 areas developed to be “creative urban-kampong” under the guidance of Bandung Municipal Government. The strength of this kampong [10][11] is the students’ active roles in shaping the kampong’s social structure to maintain the local values in the diversity of its community members. Tolerance in shared utilization of space for dwelling colors the community life here.

The existence of student community in this area gives positive impacts so that the area shaped from a densely populated, slum kampong has transformed into a creative urban-kampong marked by several shared enclaves used for activities in collaboration among universities, local government, and the community. Tolerance in space utilization is highly observable. With limited space, the community members make efforts by collaborating to make the best use of their living space and fulfill their spatial needs, both for personal and social activities.

The above phenomena have triggered interest in the researcher to conduct more in-depth research on how the communities in a densely populated area treat space as a place for both individual and social activities. Preliminary research found, in general, research on dense settlements has not touched on issues involving basic needs of space by considering basic needs based on holistic user activity both physical and non-physical. Research often only examines the problems of settlements in general, such as the physical condition of the house, the lack of environmental infrastructure and facilities, the lives of the people, and so on. Understanding how people respond to conditions that are very limited and minimal to survive and remain, is very interesting to be investigated more deeply.

The condition of Balubur Tamansari area is zoning united but separated in blocks, thus providing a symbiotic process in two very strong dualistic structures. This research was conducted by focusing on facts in the field through the grand tour process as a preliminary study by looking at events, events from discrete phenomena that occurred in the Balubur area of Tamansari, Bandung, can be formulated into several research questions that were tried to be answered in research this. The research question is how the role of students, citizens, and the city government of Bandung in creating a humane shared space?

1.2 Review of the literature and problem formulation

A literary review is intended to enrich knowledge pertaining to research theme and serves as the background knowledge of the researcher to be used in the field analysis process as a dialogue between the existing and general theories so that a new theoretical framework can be produced in accordance with the data in the field. Based on the preliminary study on the grand theories related to the research,
the researcher divides the theories into two, namely theories of space and place. Graphically, the milestone of the theories can be seen in Figure 1.

**Figure 1.** Milestone Map of Space and Place Grand Theories.
(The results of the study researchers, 2018)

Space or city is essentially an identity of its community’s social life. According to Kostoff (1999) city’s physical growth and development do not stand by itself; rather, the growth and development are always in line with the non-physical ones[12][13][14][15][16][17][18]. Therefore, a city will experience “a life cycle” by perpetually growing and developing. As explained by Rapoport (1990), the transformation process[19] of a city takes place due to changes in the activities of its users as a consequence of the changes in the community’s values, social, culture, and views [20][21][22][23][24]. Hence, the configuration of a city’s physical[21][25][26] form will always experience perpetual and unfinished changes as long as it is occupied. Modernization creates segregation of informal and formal spaces. It can also be observed in big cities in Europe and the US, where a dualism of the modern-formal and the traditional-informal forms drastic segregation. The condition creates difficulties for the informal sectors to develop; in other words, urban poverty will be stagnant. However, the growth of cities in Indonesia is not as drastic as that in Europe because of the different communities’ patterns and life. According to Soetomo (2012), cities in Indonesia, in general, are characterized by dualism[12], where the planned morphological structure is located along the main road and the unplanned morphological structure behind it as the urban-kampong area. The condition is characterized by the formal-modern sector of life and the informal-traditional one taking place side by side [14][27]. Furthermore, Soetomo (2012) has explained that the informal sectors which work hand in hand with the formal ones become the support of the life of the majority of the citizens[12].

The explanation is in line with Sujarto's opinion (1992) on the morphological condition of kampons or township in downtown area[10], where the formation of urban-kampong from the traditional kampons long existed since the era of the Dutch colonization has produced a pattern of kampong physical environment “fortified” by permanent buildings facing big streets and shaped kampong enclaves inside the cities. The dualistic city morphology between the modern-formal and traditional-informal can be perceived in Indonesian cities, where kampong is still interwoven with the downtown area, and kampongs and planned residential blocks (formal housing) become an interconnected network. The same is true for the area of Balubur-Tamansari, Bandung City[3], located
behind the commercial area of Cihampelas and Tamansari Street. The area is famous as one of the oldest areas providing student housing in Bandung City [28]. The area’s growth and development are strongly marked by the building of student housing. Not less than 80% of the houses there provide student housing. With the limited space, the local residents attempt to fulfill the need for student housing by renting some or all of the space they have. This has resulted in physical configuration adjustment through elastic spatial transformation.

The research was conducted by focusing on facts in the field through a grand tour process as a pilot study and by observing discrete phenomena taking place in the area of Balubur-Tamansari, Bandung City, the results of which are formulated into research questions below: How does the transformation of Balubur-Tamansari area, Bandung City, take place as a result of the existence of student housing?

2. Methods

2.1 The scope of research location

Bandung has a strategic position and role. In Government Regulation No. 47 of 1997 concerning the National Spatial Planning, Bandung City was designated as one of the National Activity Centers together with 14 other cities. This is supported by the physiographic condition of the city of Bandung which is at an altitude of about 791 meters above sea level. The city of Bandung is also one of the centers of economic growth in West Java with its very dynamic development. This dynamic is inseparable from the role and function of the City of Bandung itself as an industrial center, a trade center, an education center, a center for tourism and culture, and a central government in West Java Province. With the level of economic growth above the average economic growth in West Java, Bandung has become a city that has the attraction of migrating residents from other regions to carry out various activities. This pushed the city of Bandung to become the most populous city in Indonesia.

The research was done in the Area of “Taman Hewan” (lit. Animal Park) included under the area of Balubur-Tamansari, Bandung City, Indonesia which has uniqueness and peculiarities [29][30][31], both from the aspects of physical buildings and the area itself. The research location can be more clearly observed in Figure 2 and Figure 3.

Figure 2. The map of Balubur-Tamansari area, Bandung City.
(Source: Researcher’s Modification of 2018 Google Map)
Based on Figure 2 (two) and Figure 3 (three) systems and local values of the community in the Balubur-Tamansari area, among others: (1). existing community groups, such as: mothers, youth or youth, recitation groups and others; (2) activities and programs in the community, such as: self-help, government programs, NGO programs; (3) community leaders, productive groups and others. While the physical conditions of the Balubur-Tamansari area that need attention are: the slope of the land, the banks of the river, its very strategic location surrounded by well-known tertiary institutions, is the gate of the City of Bandung.
2.2 Method and analysis

The method employed in this research was qualitative using the grounded theory approach developed by Glaser and Strauss. In qualitative research[33][34][35][36][37] using grounded theory approach, the literary review is the background knowledge; it is in a sense, not a tool of analysis but the basic knowledge of the researcher in working and helping to understand the phenomena in the field. Thus, reference or theory has the same position as a research finding and theory dialogue. Analysis in grounded theory research involves several stages, namely: (a) Organizing data; (b) Reading the whole information and coding; (c) Open coding, where the researcher categorizes information on the studied events; (d) Axial coding, in which the researcher identifies events, investigates the causes, identifies each condition, and describes the event; (e) Selective coding, where the researcher identifies a plot and integrates the category with the axial coding model; and (f) The researcher develops and makes description as references to explain social, historical, and economic situations influencing events[33].

3. Results and Discussion

3.1 Transformation of Bandung City Space composition

In general, the texture pattern and building functions of Balubur-Tamansari area based on the city’s historical development have experienced the following transformations: First, during the Dutch colonization era around 1896-1920, the area was known as a recreational area for the Dutch Meneer and None (the upper class). The area was still a green open space, a fertile paddy field, and on the west part of Cikapundung River, there was “Situ Garunggang/Empang Cipaganti” (an artificial lake) owned by Haji Sabandi[7]. In addition, there was also “Cihampelas Park”, where standing next to it was Badplaats bathing area that was later on known as “Cihampelas Bath” surrounded by coconut plantation for weekend recreation. Lembah Cikapundung along the street of Tamansari at that time served as a green line with its kampong structure in the form of “babakan” or also called “umbulan”[11], a term often linked to water spring in Sundanese language. The emergence and growth of kampungs in Sundanese land were inseparable from the existence of water spring or water resources, such as the river, for example, Babakan Ciamis, Babakan Bogor, etc. These “Babakans” are the embryos of kampong representing the form and system of Sundanese community culture. Second is during the Dutch colonization era and preparation for independence around 1920-1945. The presence of THS in 1920[8] was the milestone of the life of higher education institutions in Bandung City. The impact of its founding on the area of Balubur-Tamansari was very significant, where the area has been maintained as an inseparable part of campuses. The area was made “Botany garden” for educational purposes, making the condition then remain unchanged from the previous period. Balubur-Tamansari area was still a green alley full with evergreens, pines, and even coconuts. It was also decorated with flowers and fish ponds made into “Water Park”. Until recently, the park can still be seen in a road intersecting with Cihampelas street where one can reach it by turning to and descending the Cikapundung cliff called Gang Plesiran, namely an alley directing visitors to Cihampelas Park.

During the era, there was a bamboo bridge connecting Gang Plesiran to Tamansari Street, passing Kebon Bibit Street. It was called “Kebon Bibit” (literally seed farm) because it was the place for the seedling. A little bit to the north was a terrain made into Pandu campground. The place has disappeared, engulfed by the raging development of residential areas in the city, where what is left is only the street’s name, Kebon Bibit, to signify that the place in the past was a farm for tree and flower seedlings. In this second period, the kampong’s growth and development were not very apparent in terms of its structure, because it was still well-protected as Bandung City’s green area that tended to maintain the form of “umbulan” or “babakan” with the addition of several housing units.

Third is in the period of post-independence, around 1945-1959. The area had started to experience changes in line with the establishment of Bandung College of Engineering as the precursor of the current Bandung Institute of Technology that was officially founded in 1959 by Soekarno, the first President of Indonesia. Since then, student housing started to grow; as a consequence, the area of “Cihampelas Park” began to shrink, even “Situ” (lake) Garunggang experienced shrinkage as well. Fourth is in the period
of 1960-1980. In conjunction with city development and the growth of several higher education institutions, both state and private, in Bandung City in general and North Bandung in particular, Balubur-Tamansari area rapidly developed, ultimately along the watershed of Cikapundung River. The changes covered those of land functions and an increase in building mass.

Fifth is at the beginning of the 1980s until 2000. Situ (lake) Garunggang switched its function into a housing complex called “Perumahan Taman Pelesiran Baru”. Since then, houses have grown and developed into a dense kampung. The river demarcation that used to be an open green space changed its function to residential and student housings. The bottom corner of Tamansari Street, which was previously a Kerkhof or Dutch people’s cemetery protected under the shades of the evergreens, transformed into residential areas and a higher education institution (Bandung Islamic University). In this era, the area was formed into a student township with the mushrooming of student housing. And Sixth is the period of October 2011 until now, begun with the construction of Pasupati flyover that started to operate since 25 June 2005, which has divided the area of Balubur-Tamansari into two parts. The flyover was built to alleviate traffic congestion, considering Bandung is increasingly flooded by privately owned vehicles; moreover, during weekend Bandung City is flooded by vehicles from outside of the city bringing visitors to shop or enjoy Bandung culinary. This is so because, in addition to being famous as an education city, the city is well-known as a shopping and culinary paradise. The condition of the area can be observed in Figure 3 and Figure 4.

![Figure 4](image_url). The situation of Balubur-Tamansari area, Bandung City viewed from Pasupati Flyover. (Source: personal archive)

Conditions as shown in Figure 4 (four) and based on data from the Regional Development Planning Agency (Bappeda) in 2018, as a whole the Balubur Tamansari-Cihampelas area has reached a high level of density for a settlement and is dominated by the spread of illegal housing in violation of local government development provisions. This condition also resulted in the reduction of public open space areas as public facilities as well as water conservation areas and urban open spaces.
Based on Figure 5 (five) is the primary data condition and as a track record during the study through interviews and intensive direct observation in Balubur Tamansari Area. The physical condition of student lodgings is almost 80% unplanned lodgings marked by houses growing from previously in the form of ordinary dwellings, which were then developed by their owners into lodges. This development grows horizontally for people who have a fairly large land area or vertically for people who have limited land area.

The additional impact of the flyover dividing Balubur-Tamansari area into two is the unequal development of the two sides, where the northern part of the area of Taman Hewan (Animal Park) still maintains its kampong structure even though its function has greatly changed into residential or student housing.

3.2 Student housing as part of residential space
The transformation[25][26][27] of kampong space into student housing, while still retaining the structure of a kampong, is the background for the community’s life in Balubur-Tamansari area. Due to migrant students living in the area coming from various regions and ethnic groups and assimilating with the local people, unique colors and patterns of kampong life have been produced with peculiar values. These values are at the same time the strength and potential of the community of the area[19][20][21][38][39][40].

3.2.1 Student life pattern in the community environment. Space is a facility for various activities human beings do to fulfill their needs [38][40][41], wherein the fulfillment of their behaviors demonstrate certain patterns. The established social interaction and communication among community members create a strong affinity in Balubur-Tamansari area. The land condition and space limitation shape a community’s strength based on the interaction between students and local residents. The coming of students into the community has given a new color in the community’s life, while the structure of
kampong survives and has been sustained until today. This is in line with Barker (1968) who finds the term “behavior setting” \cite{42,43} to refer to human behavioral patterns related to the physical environmental setting. Meanwhile, Haviland uses the term of activity space to describe a relationship between behavior and the environment.

Student activity space \cite{5} is shaped based on the meeting between students as individuals and their environment as a part of regional space. Student and community activities in Balubur-Tamansari area are a response to the pressure of living in a dense settlement. The concept of sabilulungan (mutual cooperation) as the basis of community life pattern becomes a strength in building a social relationship with a tolerant and familiar atmosphere. The embodiment of this concept is the similarity in interest, mutual need, the feeling of kinship, interdependence, mutual sharing, spiritual and emotional bond, and mutual respect. The coming of migrant students from various regions in Indonesia to Balubur-Tamansari area gives a certain color to the area because the students no longer carry with them the socio-cultural values of their respective ethnic groups in doing their daily activities. Instead, they assimilate with the local residents. Their adaptation as migrants with the socio-cultural life of the local residents (Sundanese community) by being able to live side by side in a strong emotional and spiritual bond and mutual respect has cultivated kinship and harmony. Meanwhile, the existence of migrant students for the local residents gives added values in both economic and social aspects, causing the residents to accept the students’ existence as part of them. Through various activities in the relationship and social interaction, the residents and students blend and assimilate without boundaries; some of the activities include the group’s activity of cleaning the kampong, Cikapundung River normalization, Independence Day celebration, and the like. They also cooperate in the activities pertaining to the Sundanese community’s traditions, such as wedding ceremony, circumcision ceremony, etc.

Interdependence, mutual need, mutual sharing, and kinship due to similar interest create a harmonious relationship between students and the local residents. In daily life, mutual symbiotic relationship and mutual need are created, ultimately in fulfilling daily needs, for students need a place to rest in boarding rooms, while the local residents become the ones to provide them. A large number of students living in this area provides an opportunity for the residents to improve their economic status by building rooms for rent; furthermore, they also build other facilities, such as shops selling daily needs.

3.3 Student housing as regional identity

The development of Bandung towards an education city has begun since the establishment of the Dutch Indigenous Teacher Training School/Hollandsch Inlandsche Kweekschool in 1866. In its development, many schools started to emerge accordingly, both those intended for native people, such as Hoofdenschol that provided education for prospective native or indigenous employees, which in its development was then changed into OSVIA/Opleidingschool voor Inlandsche Ambtenaren/Prospective Indigenous Employee Training School; and those intended for European people who lived in Bandung, such as Europeesche Lagere School. These facilities of education eventually spurred the development of Bandung City, especially in the field of education, where Bandung has become a center for education in the area of West Java. Since independence until today, Bandung City has rapidly developed into an education city. No fewer than 168 higher education institutions, both state and private, are located here. 11 out of these institutions are state universities, namely Bandung Institute of Technology, University of Padjadjaran Bandung, Indonesia University of Education, Sunan Gunung Djati State Islamic University of Bandung, Bandung State Polytechnic, Bandung Polytechnic of Health-Indonesian Ministry of Health, Bandung Polytechnic for Manufacturing, Bandung Indonesian Art Higher School, Bandung Institute of Tourism, Bandung College of Social Welfare, and Institute of Public Administration \cite{3,4}. The existence of these state universities and institutions has become the uniqueness of Bandung compared to other cities in Indonesia. Out of the 11 states higher education institutions, eight are located in the northern Bandung area. Meanwhile, there are at least 22 private higher education institutions in northern Bandung. A large number of state and private higher education institutions
institutions has a significant impact on the growth and development of Bandung City[41], involving both the changes in the city’s structures and its economic situation.

The rapid growth of higher education institutions has created a high demand for student housing; on the other hand, the existing institutions cannot accommodate these needs through the availability of dormitories. This has caused the supply of student housing to be fulfilled by the residents around each of the higher education institutions. The positive side of this phenomenon is the increasing growth of the economy of the communities surrounding the institutions; on the other hand, there are also negative impacts, such as the growth of slum areas, ultimately in the enclaves close to the institutions. Meanwhile, the complexity of life encourages radical changes in the order of life. Balubur-Tamansari area [3], as one of the oldest areas providing student housing, becomes inseparable from the growth and development of Bandung City[4][9]; however, the area still strongly secures the structure of a kampong as the identity of this area from the foreign influence brought about by the migrant students. The existence of migrant students who stay in the housing provided in the area becomes a catalyst for area development. The concept of Balubur-Tamansari area as a “creative urban-kampong” [3][4][28] is a pilot project of the programs of Bandung Municipal Government that has become the strength in developing the identity of this area. Students as catalysts, together with the residents, maintain the inherent values of the area in an attempt to secure the sustainability of the area, without creating any conflict among them. Good communication between students and the local residents has caused conflicts to rarely occur. Furthermore, migrant students successfully make adjustments in their daily lives in the area, so that the characteristics of the area, which are its strength, uniqueness, and identity, can be maintained.

4. Conclusion
The embodiment of this spatial transformation results in the formation of elastic space caused by the pressure to fulfill the needs of both individual and group activities. The spatial composition transformation process has taken place by the influences of (1) The inhabitants’ activities in socializing with the community group, so that the limited land will form an elastic space through adaptation with activity pattern based on the spatial need and time priority scale; (2) The residential cultures of the native residents and the students blend into one culture in kampong life with its own values. The values become the social foundation, which by themselves are the strengths and potentials for the community at Balubur-Tamansari area, Bandung City; and (3) The form of this spatial transformation is not only limited to the physical aspect, namely a space limited by wall barriers; rather, the space can be interpreted as a form of human need-based activities as a result of social interaction between the community members, which in this case between the local residents and the migrant students.

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