THE MEANING OF "BOUNDARY LINE" DUE TO THE PRECAST MODULE SYSTEM IN 'RUSUNAWA' BUMI CENGKARENG INDAH, JAKARTA, INDONESIA

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ABSTRACT

This research reveals meaning of "boundary line" due to the precast module system in Seruni 8 block, 'Rusunawa' Bumi Cengkareng Indah, Jakarta, Indonesia. The Grounded Theory method, with the type of "constant comparison", which is a semi-grounded theory, is chosen to express the meaning of the "boundary line" from the residents' point of view. The coding process in data processing uses computer program Maxqda. The results of this study indicate that well-established relationships between occupants can transform the boundaries of private corridor ownership (individual territory) into joint ownership (communal territory) as a place to socialize and share goods placed in the corridor, and maintain the cleanliness of the corridor together, so that the "boundary line" due to the precast module system for residents of the Seruni 8 block, 'Rusunawa' Bumi Cengkareng Indah, Jakarta, does not affect the meaning of the boundaries as the individual territory, because the communal territory is stronger than the "boundary line" due to the precast module system.

Keywords: "Boundary line"; corridor; grounded theory; precast module; 'Rusunawa'.

INTRODUCTION

In Indonesia, most of the low cost rental apartments are built using the precast method (such as in Seruni 8 block, 'Rusunawa' Bumi Cengkareng Indah, Jakarta). The construction method using a precast system consisting of pieces (modules) will form a pattern of connecting lines between components that can lead to a separate interpretation or perception of the lines. Due to the system of precast modules in each of the residential unit, connecting lines are clearly visible along the corridor, giving the impression of a clear "boundary line" as the area of corridor ownership in front of each residential unit known as territory. This can be discerned in the presence of white "boundary line" and personal belongings of residents placed along the corridor in front of each residential unit as shown in Fig. 1 below.

The existence of the "boundary line" presupposes that there is the existence of "occupancy" of the corridor for personal interests and can disrupt the relations between occupants, because it provides a clear boundary of corridor ownership between residential units, as a result, the function of the corridor as a circulation path which is a semi-public zone changed into a private zone, affecting the pattern of placement of goods in the corridor in front of residential units as shown in Fig. 1 below.

Every human wants to claim and defend his territory both physically and non-physically, not to be disturbed. Corridors as a circulation path which is a public facility (semi-public zone) can change to be a private zone because of a "boundary line". This cannot be separated from territorial elements related to ownership boundary that need to be maintained to avoid conflict and struggle for public facilities



Fig. 1. Precast module system on corridor. Surveyed on August 16, 2016.

To determine the extent of the influence of the "boundary line" to the meaning of territoriality for the occupants in the corridor, this research reveal the meaning of "boundary line" due to the precast

module system from the point of view of residents of Seruni 8 block, 'Rusunawa' Bumi Cengkareng Indah, Jakarta, Indonesia.

MATERIAL AND METHODS

Grounded Theory

This research has been conducted using the Grounded theory, a reflexive and open approach, where data collection and development, as well as the development of theoretical concepts and literary reviews, take place in a continuous cycle process.

The method of "constant comparison" (Birks & Mills, 2011, p. 11), which is applied to find the core category, is the semi-grounded theory, that is, to say research using a number of systematic procedures, directed to develop a theory of action oriented, interaction, interviews or processes based on data obtained in the field as shown in Fig. 2. The interviews used a "constant comparison" method, namely direct and in depth interviews (Sugiyono, 2013, pp. 63, 126; Afifuddin & Saebani, 2012, pp. 131-134), field observations, mapping locus and types of activities related to theory that produced core categories through direct interviews with the head of the neighborhood ('RT') and some residents of Blok 8 Seruni, 'Rusunawa' Bumi Cengkareng Indah, Jakarta, Indonesia.

The "constant comparison" method (semi-grounded theory), which employs parameter/theoretical indicators of the territory, is used to find the meaning of territoriality for the inhabitants occurring in the corridor of the "boundary line" due to the precast module system in the case study. As a method of discovery, the method of "constant comparison" is a mixture of systematic coding, data analysis, and theoretical sampling procedures that enable researcher to make a new interpretation of the meaning of the territoriality of most different patterns in the dynamics of territoriality data with the development of theoretical ideas of territoriality on a higher level of abstraction than the initial data description.

Grounded theory is an inductive methodology, which can be used with qualitative or quantitative data, because the systematic method of a generation of theories is carefully arranged so that it raises conceptual categories. Generally, many people consider Grounded theory not to include qualitative data (Institute, 2013).

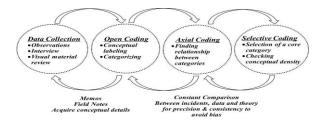


Fig. 2. Data Analysis Procedure of Grounded Theory Method Source: (Cho & Lee, 2014, p. 9).

The process of data encoding uses the Maxqda computer program (www.maxqda.com, 2017) to facilitate the process of importing narratives/words data in table and graphic form, as well as analysis of "constant comparison" to show and relay the relationship between categories and sub-categories.

With the help of statistical tools in the form of Maxqda computer program, researcher is assisted to simplify the making, grouping and analysis of the coding process. In open coding, researcher form the initial categories about the phenomena studied. Within each category, researcher finds some properties, or sub-categories, and look for data to "dimensionalize2" the results of interviews related to phenolmena.

In axial coding, researcher assemble data are using coding paradigms to identify central phenolmena, explore the categories, specify strategies, identify the context, and illustrates the consequences of this phenomenon.

In selective coding, researcher writes "story-lines" that integrate categories in the form of transcripts/memos and look for core categories that can represent the meaning of "boundary line" for the inhabitants of Seruni 8.

Territorial Framework

Privacy is very much needed by humans (Hall, 1959) in the social relations with the environment and the community which is the expression of the territory's manifestation (Altman, 1975; Goffman, 1963; Sommer, 1969). The aim is to give meaning to places and spaces, in addition to border the ownership areas called territory (Lyman & Scott, 1967; Skaburskis, 1974). Territory are associated to factors that are occupied, owned, controlled, and maintained by individuals and communities, if this is violated or taken by others will cause discomfort because this territory refers to rights and involves exclusive control of individuals and communities (Porteous, 1977, p. 240).

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^{1&}quot;Constant comparison" is a process of analysis in Grounded Theory, with which the researcher compares events to one another, incidents with code, code with code, code by category, and category by category.

² "Dimensionalizing" refers to drawing a dimensional profile separate from each category that can be grouped to form a pattern.

Corridors are manifestations of space for needs: 1) clothes drying area; 2) private space; 3) Accommodation for additional family members; and 4) Place to socialize with neighbors/other residents. According to the recent study found that the use of part of the corridor in front of each apartment unit is recognized by other residents, so the corridors become a manifestation of the meaning of togetherness and caring, which reflects social interaction as physiological needs) (Lianto, Arifin, & Dwisusanto, 2017, p. 404).

CASE STUDY

The study has been conducted with a case study of low-cost rental apartment ('Rusunawa' Bumi Cengkareng Indah) which was built using a modular precast system and has been inhabited for more than 10 years, in order to explore more the sense of territoriality for residents in the corridor associated with the "boundary line" due to the precast module system, and the relationship between occupants. This rusunawa consists of small residential units and is a high density, a low-rise building of 2 to 6 floors. The use a staircase as a vertical circulation (walk-up-flat) results in communication and social relations between residents.

Rusunawa Bumi Cengkareng Indah, Cengkareng, West Jakarta was built on 22,586 m² of land, consists of 1,728 units of type 21, and was completed in 1996. The Seruni 8 block, with 48 heads of household is taken as the specific object of the case study. The Seruni 8 block consists of 5 floors, with the ground floor functions as facility room and 4 floors as dwelling with 12 units on each floor as shown in Fig. 3.

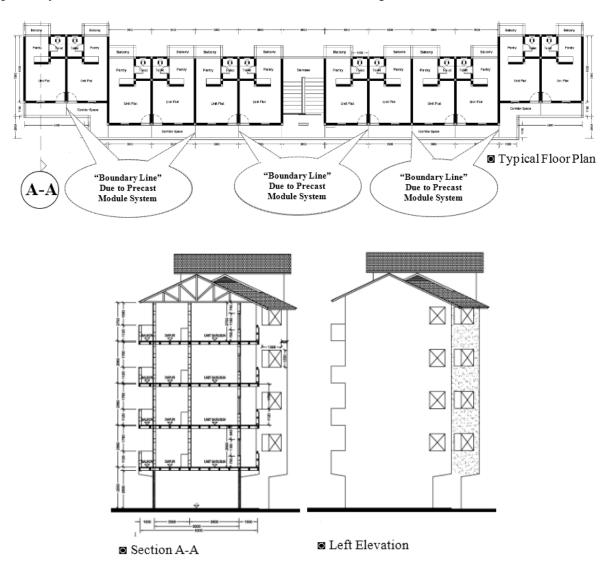


Fig. 3. 1st to 4th Typical floor plan, section A-A, and left elevation in Seruni 8 block, 'Rusunawa' Bumi Cengkareng Indah, Jakarta, Indonesia. Surveyed on August 16, 2016.

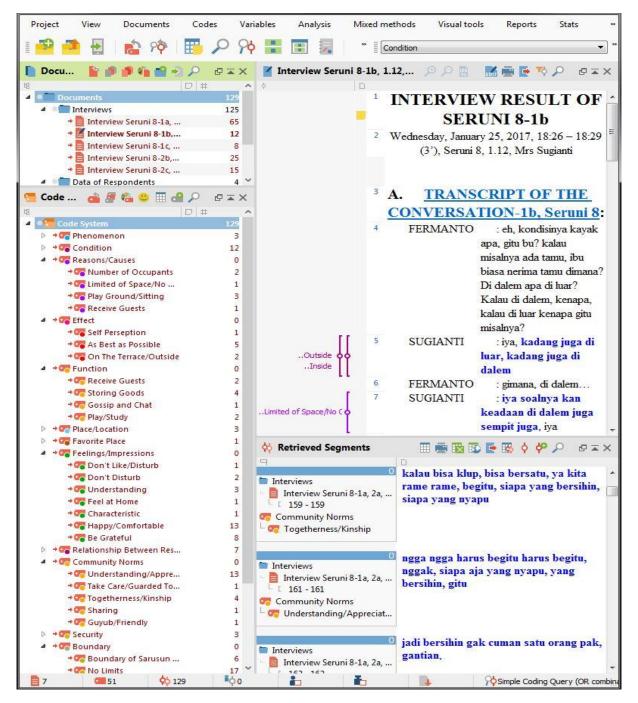


Fig. 4. Display of statistics tools. Run by Maxqda computer program.

The sampling method used in this research is purposive sampling, in which the sampling is based on the judgment of the researcher about which individuals are credible sampling subjects for in depth interviews.

RESULTS AND DISCUSSION

Based on the observation, it looks as if there is a clear boundary between each residential unit with the placement of personal belongings of the occupants placed in the "boundary line" formed from the system of the precast module, as if to mark the territorial boundary of corridor ownership as shown in Fig. 1.

In depth interviews and three repetitive interviews³ (in order to achieve a saturation⁴ process)

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³ Interviews with residents of Seruni 8 block 'Rusunawa' Bumi Cengkareng Indah, Jakarta, Indonesia were conducted in Bahasa Indonesia the national language.

⁴ The saturation point does not mean that it is often mentioned in the interview, or the same idea appears repeatedly, but it occurs

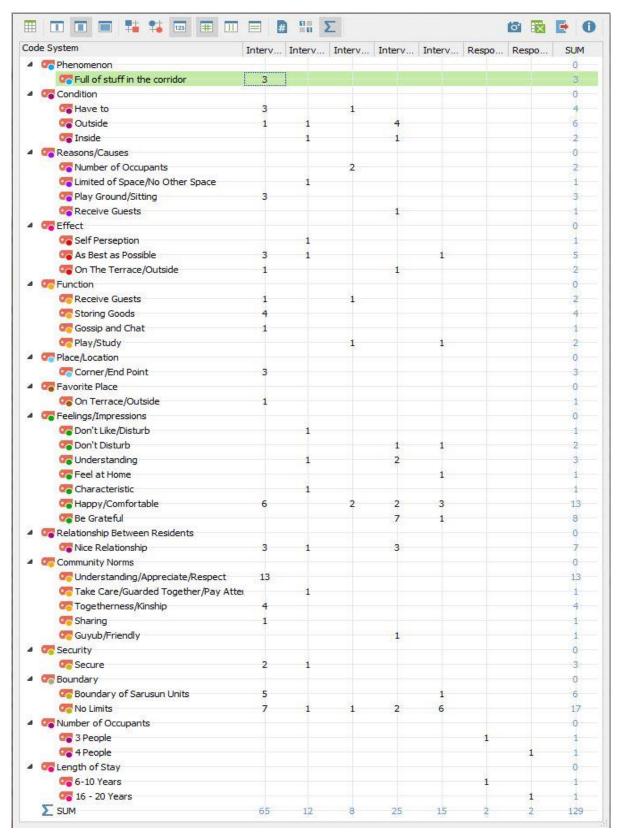


Fig. 5. Category & sub-categories in axial coding. Run by the Maxqda computer program.

when the researcher believes that the theory that will be produced can explain many things in the data. Saturation can appear at different and unpredictable stages. (Daymond & Holloway, 2008, p. 189) were held with some residents of the Seruni 8 block on the topic of the corridor ownership boundary in front of the

dwelling unit to find the territorial meaning for the occupants about the "boundary line" due to the use of the precast module system. Later, the coding process in accordance with the stages of the grounded theory method (is analyzed with the help of statistical tools in the form of Maxqda computer program) reveals the results as shown in Fig. 4.

After applying the open coding, researcher proceed with axial coding to find the categories and sub-categories as shown in Fig. 5, and the relationship between categories and sub-categories as shown in Fig. 6.

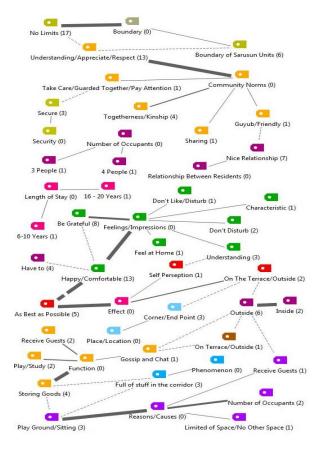


Fig. 6. Relationships between categories, sub-categories, and "dimensionalize". Run by the Maxqda computer program.

Subsequently, this is further analyzed by the "constant comparison" method to obtain selective coding and the core category according to the research question dealing with the meaning of "boundary line" for the residents of Seruni 8, that are:

According to some residents there is a boundary
of ownership of the corridor in accordance with
the boundary of residential units (21.70% "dimensionalization"), with the following properties:
At first the residents thought that the corridor in
front of each residential unit belonged to the
corresponding residential unit, so the residents felt
free to put personal items in the corridor. But it is

- then realized that the corridor is the property of all residents of 'Rusunawa', so the placement of personal items is allowed as long as it does not interfere with the circulation of other residents.
- According to some residents there is no boundary to the ownership of the corridor although there is a "boundary line" due to the system of precast modules (78.30 % "dimensionalization"), with the following properties:

Occupants generally realize that the corridor is a common property and there is no private ownership boundary although there are "boundaries" between residential units along the corridor. From the results of in depth interviews it is known that the "boundary line" is a concrete connection due to the precast module system. When it rains, leakage occurs in the connection gap, which is covered with a kind of white water proofing material by residents, resulting in what looks like "boundary line" ownership of the corridor.

The "boundary line" is not a reflection of the inhabitants' intention to create boundaries in the corridor between residential units, but because the precast module system produces images that seem to imply a corridor's boundary-ownership boundary individually. The corridor as a common space has more significance, regardless of the clear "boundary line" of the corridor between shelter units due to the use of the precast module system, which is not interpreted as a "boundary line" of individual corridor ownership.

- The small sizes of the units resulted in the residents generally receiving guests and socializing in the corridor as shown in Fig. 7(a), and allowing other residents to borrow items placed in the corridor as shown in Fig. 7(b), so that a good relationship among the inhabitants is built, making residents feel cozy and comfortable living together, and not perceiving the boundary of corridor ownership despite the strict "boundary line" of the precast module system. This is indicated by the awareness of the inhabitants in arranging personal items in corridors in such a way as to not interfere with the circulation of other residents, and sharing possession of items such as tables, chairs to receive guests, and toys laid in corridors to other residents as shown in Fig. 7.
- 4. The harmonious relationship with other residents is also shown in maintaining the cleanliness of the corridor, i.e. by not only sweeping the floor in the corridor in front of each residential unit, but also all along the corridor, and followed by mopping by the other occupants. Hence, so togetherness is well preserved.

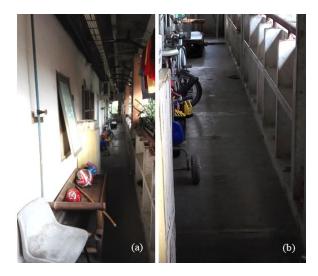


Fig. 7. (a) Chairs for guests receiving and socialize activity, (b) Bicycle laid in corridor. Surveyed on August 16, 2016.

CONCLUSION

From the result of the analysis with the "constant comparison" method, the meaning of "boundary line" due to the precast module system in the corridor for the occupants is obtained as follows:

- 1. The "boundary line" in the corridor between residential units is formed because the Seruni 8 block is made of a precast module system, so there is a gap between the prefabricated components, and when it rains seepage or leaks occur from the gap. To overcome this, residents try to cover the gap with some white waterproofing material, so it forms lines that look like a "boundary line" as the boundary territory of corridor ownership. However, in reality, the occupants are not affected by the "boundary line" and do not consider it as boundary of corridor ownership, so the "boundary line" due to the precast module system is not interpreted as the boundary of a private corridor or territory, but still as a semi-public territory.
- 2. The well-established relationships between occupants can eliminate private corridor ownership boundary (private territory), and change it into joint ownership (semi-public territory) as a place to socialize and share goods placed in the corridor, and keep the corridor clean together. Thus, it is the meaning of "boundary line" for the residents of Seruni 8 block, Rusunawa Bumi Cengkareng Indah, Jakarta, Indonesia.
- 3. The existence of the "boundary line" due to the use of the modular construction system method for the occupants of the Seruni 8 block, Rusunawa Bumi Cengkareng Indah, Jakarta, does not affect the meaning of the boundaries as individual

territory, because the communal territory is stronger than the "boundary line" caused by precast module system, so it is not interpreted as a boundary of individual corridor ownership individually (individual territory).

The application of the "constant comparison" method, which is a semi-grounded theory, is appropriate for the analysis of the perception of the residents, especially in the "Rental low-cost apartments" ('Rusunawa'). This can complete the architectural study which tends to be spatial-physical.

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