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The house design transformation: the preferences and the patterns

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Abstract

Housing in Indonesia is facing problem in providing proper and affordable house. Therefore, the Indonesian government anticipates this condition by providing 'in-between house' (rumah antara) rather than a final expensive house unit. This in-between house is known as 'Rumah Inti Tumbuh (RIT)'. In sustainable concept, the development process of RIT to Rumah sederhana Sehat (RsS) might need to minimize the major destruction during renovation.

This article is based on research aimed to find the transformation pattern of the initial house design as an adjustment of the users. The research was conducted with qualitative method. The data was collected through documentation, interviews and observation on the artefact. The main research objects are the 40 house units of the oldest National Housing in Yogyakarta, known as Perumnas Condong Catur. The design transformation of it as the public housing can be considered as architectural process of the user's adjustment. The result of the process can be read to find the pattern of the house development.

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1. Introduction

One of the criteria that can be used to assess the quality of a house design might be the residential satisfaction of the design¹. The satisfaction can be seen in how major improvement applied during occupying². The more unsatisfied the resident, the more transformation activities will be constructed. It is based on assumption that the improvement is aimed for adjusting the existing condition³. The adjustment might be purposed to fullfil the

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occupants' will and need². This phenomenon often happens on houses which are not designed specially and specifically for the occupants. The unit in housing provided by the government can be an example case.

The unit in a mass housing provided by the government might be designed with lack consideration on occupants' will and need⁴. It is due to the fact that the design is based on generalisation. Moreover, the mass construction is affected by price differences and local resources⁵. Therefore, a research that observes the resident satisfaction might be needed to assess the quality of the unit in public housing. The finding can be a recommendation for the government to improve the existing design and increase the quality of the offered unit.

2. Design Transformation as Behavior Adjustment

The change of the initial design done by the owner is actually expected by the governent as the housing provider⁵ and seen as a form of user participation. That is why the initial offered unit is called as 'growing core house' or Rumah Inti Tumbuh (RIT). When the owners have surplus in financial, they can develop the design in accordance with their capability. This development can be done before moving into the unit and during occupying⁶. This participative process⁷ seems to be successful in raising the housing stock availability^{8,9,10} in affordable price for low income community. This mechanism might be more effective in the future⁹ in fulfilling the need of housing stock.

This program effectiveness needs to be supported by the character of the design that should be possible to be developed⁷. The unit must be designed flexibly so it can be changed and adjusted^{3,10} easily. This flexibility has to be considered in the planning stage³. Therefore, the designer might need to know the change and modification of the unit for figuring out the design type that is closest to the occupants' need¹¹. Understanding the architectural pattern can be done when the designer has the programming data needed or prioritized for the need of every single unit of house. It is a part of designer's effort in mass housing planning and design to consider the owner's wish and need of the developed unit in mass housing.

3. Design Transformation in Previous Research

The house transformation has been discussed in some publications. The studies have remarked the possibility of the house transformation for increasing the spatial quality and quantity of the house without having to move out from the unit. The transformation is included the change and modification that is intended to fulfill the existing design with the occupants' need, want and priority⁶. It is stated that there are 3 types of house transformation. They are the transformation by keeping the existing house, the transformation with demolition of the existing house and the step by step transformation. The changes can be categorized as a restoration (minor development without making any change on the structure), a remodelling (major development but still keep the initial structure) and a reconstruction (totally renovate without keeping any initial structure)¹³. Similarly, another publication concludes that 98,82% of tranfomation is in order to widen, whereas only 1,18% of tranformation is for reconstruction¹⁴ purpose. The personalisation is another form of transformation¹¹ that is aimed to meet room and lifestyle demand.

The part of the house that is often critized and then finally transformed also has been discussed. A research stated about the dissatisfaction on the existence of the clothesline area, the natural lighting, the air circulation and the kitchen space ¹⁵. Supporting that conclusion, 16 out of 17 samples add the kitchen space to be integrated with the dining area ¹⁶. Transformation of the other rooms is the bathrooms addition and the living room extension. The extension is usually applied in the rooms that have spesific function, that could not be integrated such as kitchen and bathroom (100% of respondents did change both rooms) and bed room (21,18%)¹⁴. In the guideline for building healthy house, the Indonesian Government has anticipated this transformation tendency by providing open space that can be used for multifunction room⁵.

4. Research Method

This research was conducted with the qualitative method. This method pays attention on the social situation¹⁷ including the Condong Catur National Housing as the oldest government-provided housing in Yogyakarta (as the place), the original residents who bought the unit from the government (as the actor) and their activities in developing their initial design unit for meeting their spatial need (as the activity). The actors act as informants who

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