

RE-EVALUATING SPACES WITH ADDITIVE TRANSFORMATIONS ON EXISTING RESETTLEMENT DWELLING UNITS

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Abstract

In many low income resettlements in Sri Lanka, the given design is identified as mismatch solution for the requirements of dwellers according to their "additive transformations". After background studies, it was understood that among various types of resettlements, the horizontally expanded housings in urban context have the full potential of user transformation according to their adaptations since each individual has the touch of land area. Even though the visible issue was the identical and limited area dwelling units to address different family conditions with occupational and other individual basic matters, in reason of identifying the embedded proper causes behind the chaos, the study had been arranged along with horizontally developed resettlement in Matara, and it followed by field visits, altered plans and layout studies, interviews and data collection to get the clear picture of re-evaluation spaces through the usage and human interaction, hence the practical examples are reflecting the parameters of which analysis supports to prevent further complications.

In lieu of repeating the unfitted community solutions, understanding the specific communities, which are to have the opportunity of housing units, is a vital action. Any solution in the future apart from above consideration could be a wasted product which are more to become an abandon dead spaces or dwellers with frustrated mind without having any option for space transformation.

Based on the details, this research paper analyzes the main failure parts of the particular housing procedure and the suggestions to overcome them to be more successful in similar future projects.

Keywords: *Additive transformation, low-income resettlements, dwelling units*

1. Introduction

As a reason of modern life requiring people to live inside or nearby main cities, illegal resettlements by low income communities have been a common scenario over the period of time. After identifying such settlements, government always has to provide most suitable option for them with respect to their already established life patterns without or minimum damage.

Even though the government spends money and funds for budget resettlements, most of such projects are in abandon stage due to user being unsatisfied. Therefore, the "Architecture" comes in to the major consideration, and its supported solutions according to the concepts of responding the particular crowd is best path to satisfy both authority and community.

Had the problem architecturally responded with respect to the culture, economical background, education, occupation, health and other related basic facilities, the settlement would have uplifted the living being itself by the improved qualities. In present situation, dwellers attempt to either leave the places by renting the house for third party or re-evaluate the spaces to fulfil their needs.

1.1. TYPES OF RESETTLEMENTS IN SRI LANKA

Key types of resettlements can be categorized as below.

- **Rural:** Due to large scale developments, natural disasters, social conflicts such as civil war, etc.
- **Urban:** Due to high population density with poverty in cities
- **Linear:** Due to development projects such as highways, electricity distribution and irrigation.
- **Site-specific:** Due to specific projects such as Hotels, Ports

1.2. BACKUP OF THE POLICIES

Both international and local housing policies have been adapted to support the victims and such guidelines can be seen in the specific authorities (the ministry of resettlements and the Urban Development Authority) and organization notifications. UN and ADB are those kinds of international structures, which conduct researches on housing, including related problem and methods of overcoming them.

With reference to ADB guidelines, below key points should be addressed.

- Free from natural disasters
- Proper facilities with basic requirements
- Close distance between resettlement and previous habitat
- Fulfilling other related requirements
- Political willingness
- Occupation responding

1.3. URBAN RESETTLEMENTS

Urban Resettlement is said to be the most complicated resettlement that needs more concern on design parameters and to be more precise on fulfilling the rules and regulations as it directly effects not only the community but also the economy of the county. Providing houses for those who have illegally settled in valuable lands that can be utilized in commercial aspects, would boost the economy only if the resettled community satisfy with the solution.

2. The Study

This study is based on an urban resettlement project in Matara and how people had transformed given spaces for failures was deeply analysed. Poverty and Natural disaster conditions can be widely identified as main reasons for resettlements in the city. However, the selected resettlement was initiated by the government as a solution for poverty in the particular community. The design of this resettlement had scattered horizontally so that the degree of alterations and additions are much higher than that of vertically developed housing schemes.

Details and data collection for this analysis were extracted from the dissertation of the paper writer for the final year (2014), Department of Architecture, University of Moratuwa.

2.1. STORY OF THE COMMUNITY

Since Matara is a commercial urbanized area, large crowd has been converged to fulfil their needs in the city. The research goes around such a group of gathered people lived near Nupe junction, Matara. It is now termed as “Nupewela Housing scheme”. In a government land near the junction, the particular group had built their squatters and gradually it was increased by joining more families, who did not have a land to build even a temporary shelter. When government identified it as an illegal settlement, there were 209 houses within the selected area. As a less conflict solution, Authorities decided to build houses for them by only using part of the large land (04 acre 02 route and 16 perch).

As they planned, the project was completed by handing over the houses to the community and a method to pay the cost of the structure to the authorities was also introduced. Since each unit was a very basic structure with only external envelope and a toilet, the value of a house quantified as LKR 366, 000.00 and users should pay them within 60 years by following equally weighted monthly payments (LKR 508.33).

2.2. METHODOLOGY

After studying the scenario, the specific group that had been highly impacted was found. Friendly and trustworthy person was selected among the group to join with the field visits, interviews and other data

gatherings, while others had the chance to explain their burden and their difficulties without hesitation. The priority was given for the section where the highest transformation was appeared and each and every house owner joined to the interview in their own house with their unique transformations.

Further, the community comments on the research was a good approach and it was understood that they were happy, despite the project being a research, to see someone hearing their burdens.

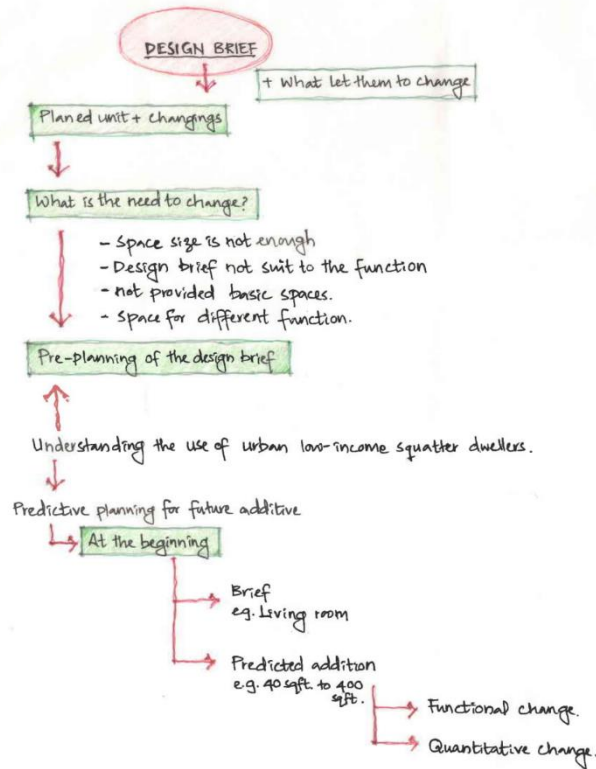


Figure 1, Methodology

Pre-arranged data sheets and drafts, through the surface studies, had been carried to question the people about their life experiences of new settlement with keeping a spare column for newly identified issues. While interviewing each family, the re-evaluated and transformed layout had been sketched on the copy of original plan designed by the authorities.

Once all the data and useful facts were collected, the project analysis had been started to see the depth of the problematic environments. At the first stage to understand the problems, the community was divided to few categories according to their house modifications, since those were made on purpose of improving their own life quality.

- Quantitative additions to failures; for basic needs
- Qualitative additions with different use; special needs
- Changing the use; Re-evaluation
- Cultural additions with related functions
- additions and alteration to respond weather
- Variation of expansions

3. Research Analysis

All the houses were two story blocks and it was, in surface, identified that the insufficient space had been the major reason behind users altering the houses.

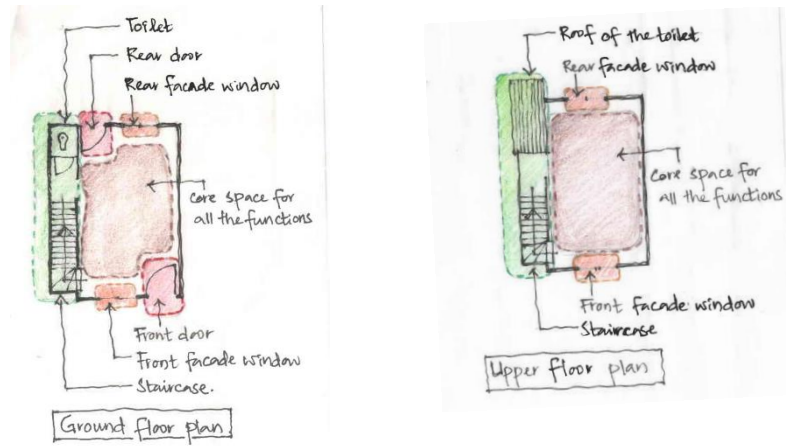


Figure 02, Existing spaces of core house design

The open space in both ground and first floors had been offered allowing user to define their spaces. However, the given space is not enough for a family with more than 4 members and they had to share the spaces with less privacy.

3.1 QUANTITATIVE ADDITIONS FOR FAILURES

By dint of the given space not being enough for all the functions, the ground level had been added with front space for living area and the rear with kitchen and upper floor, with two or three bedrooms following ground floor alternations.

As a reason for the alterations, the number of family members showed much potential. The members were varying to two to twelve persons, while the six members were the most common count. It was observed that the number and gender caused to most interior changes.

3.2 QUALITATIVE ADDITIONS WITH DIFFERENT USE

There had been some changes according to their life pattern and cultural requirements. Majority being Buddhist, they used the open areas beside housing complex for the small temple with a Bo tree and Buddha statue. A small playground for their children was also added for their convenience. Moreover, the privacy basis partitions were visible in most of the units.

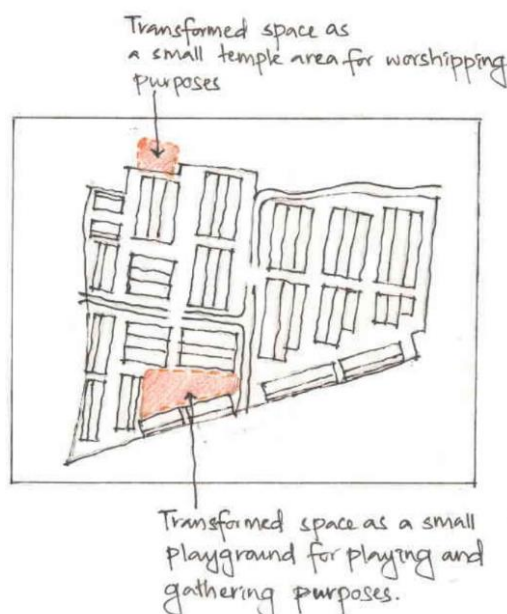


Figure 03, Layout transformation

With respect to the occupation, most of them were labors, who did not need a specific space, but the second heights number with small shop owners, electricians and tailors asked a particular space for their needs. The Auto rickshaw/ three-wheel drivers were also not provided with the parking spaces. Then, the people had added spaces to cover their special needs.

3.3 CHANGING THE USE; RE-EVALUATION

Users had converted some specific spaces for other needs depending on their habits and practices. As example, they had used common bath tank, as they had practiced for long time, instead of own bathroom provide in the house. In such cases, the bathroom had been converted to store room.

3.4 CULTURAL ADDITIONS WITH RELATED FUNCTIONS

It is clear that each culture has unique requirements. As example, the needs and interior such as bright colours for Tamils differ to each religion which relates to the culture as well. Even though the majority was Buddhist, the need of any religious activities had not been addressed, so that people later changed the interior and exterior according to their wish and the Buddhist community had also added a small temple with Boo tree as shown in figure 03.

3.5 ADDITIONS AND ALTERATION TO RESPOND WEATHER

The design given by the government is a common one for all. Same design being incompatible to each site and its orientation variations, users had to alter mainly windows to regulate the sunrays and avoid water sprinkling during rainy season. The draining system had to be redesigned site to site, as the floor angle and water flowing pattern during rainy season was different to each site around the unit.

3.6 VARIATION OF EXPANSIONS

All the changes and alterations had been executed depending on the available space in the site. Since the size and shape of many sites are different to each other, options for alterations have not been common to all, which has created some patterns depending on the site arrangements and orientation.

If the house is closer to the drainage system, they encroach the space by keeping wood or using another light material. The highlighted areas on the figure04 can be transformed, but in rear side of the house, there is a drainage system and also another set of houses. Then their rear expansion is limited with those constructions.

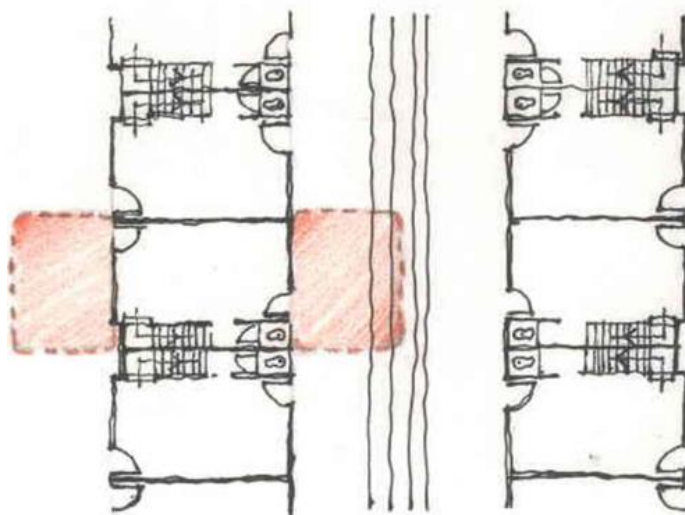


Figure 04, Transformation proceed only two sides

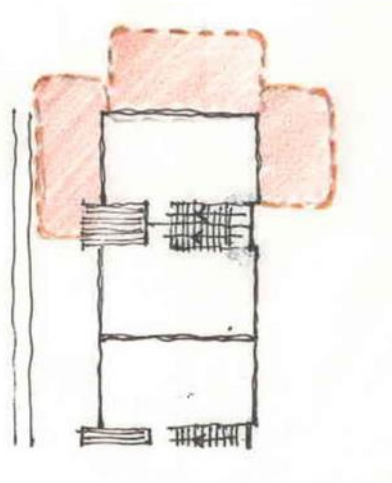


Figure 05, Three sides expansion

There are some houses that have open spaces from all three side with one side being limited with drainage

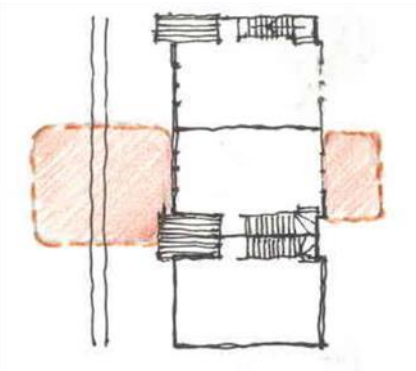


Figure 06, Expansion with one large side

Another set of houses has two sides with one side being large space for expansions passing even the drainage as there is no building thereafter.

4. Suggestions to be successful in such resettlement in future

4.1. STRENGTHENING FEASIBILITY STUDIES

There was a visible failure in feasibility studies on the selected people. It should have been started with the observation of the community and few discussion sessions of the beneficiary's idea about the proposed plans. If the officials identify the needs of people and address them through the design, the both parties will satisfy through the project without further complaints.

4.2. FEW TYPES OF DESIGNS, OWNER DRIVEN DESIGNS OR PROVIDING ENOUGH SPACE FOR THE TRANSFORMATIONS AND EXPANSIONS

All the families were provided with the same model houses for the different family conditions with number of members, occupation types etc.

There should be few types of designs, which have the ability to address the various family and site conditions. The owner driven house designs can also be a good solution, hence the owner supervision directs to their habitual paces. As a last solution, the enough space for transformations would be a best method, as it will have the freedom to re-evaluate, alteration or additive transformation with the provided sufficient volume.

4.3. SPACES FOR COMMUNITY RELATED FUNCTIONS

Tight housing block composition had limited the specific community functions and people have hardly cleared some areas to create playgrounds and cultural needs. Providing the spaces for common functions is a must to be sustain as a community.

4.4. STRENGTHENING THE INITIAL INVESTMENT;

The cost which government spent for one house is LKR 366,000 which is not enough to fulfill at least most of the requirements which need to satisfy the community. Government should focus on to get some value addition through the beneficiaries by satisfying them instead of going forward with low investments.

In this community development project, the government allocated large cost for the drainage system, which was hard to maintain as well as covered and blocked by the additive transformation of the people. With proper studies in initial stages, these type of money wasting can be reduced.

4.5. PROVIDING ALL THE BASIC FACILITIES

This settlement had not defined the most common facilities of Kitchen, bath area and users were given the open house and allowed to decide themselves, nevertheless the space was not enough at all.

To reduce the conflicts, it is important to provide very basic needs of the individual family basis through the design itself.

5. Untenable Views of the Research

As the research starting point was stuck with the already established resettlement, image of their previous houses was a mere composition of descriptions. Those could be an erroneous, since neither authorities nor people had evidences through a plan or any other method to prove.

To observe the reasons of transformations and reduce the quantity of inter-viewers, the high effective area had been chosen as a sample. Had the whole community taken in to the consideration, the result might have changed with the quantity.

6. Conclusion

“In practice, it may be Impossible to specify and estimate a choice model that will always be correct in predicting the chosen alternative by all individuals. In order to overcome this problem we resort to the concept of random utility. In a random utility model the true utilities of any alternative are considered as random variables.”

KamleshMisra, Housing the poor in third world cities, p. 25

Resettlement is one of the areas which need more professional's attention to uplift the quality. Even though many studies and researches have been carried out, suggestions of those researches have not been able to come into the practical situation properly. This study proves how difficult it is to apply those methods in real world situations. Any way if authorities are brave enough to understand what case studies show and change their practices according to the particular application, a properly designed resettlement, with all the requirements appearing in policies, articles and case studies, will satisfy the community as well as the government.

Considering all the analysis and the observations, any community should have owned a comfortable surrounding even in a low-budget resettlement. Hence the government cannot afford all the requirement that the people are asking, through the understanding the community, it would be more easy to compose than the non-responding building for the community aspirations. In such cases, the idea of additive transformation and re-evaluation theories help to satisfy the community by creating their own spaces following their specific needs. However, for that the adequate space, feasibility studies and enough initial investments are a must.

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