DESIGN AND PLANNING APPARATUS FOR URBAN POOR HOUSING DEVELOPMENT

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Abstract

From 2002, the Baan Mankong Program has involved in low-income housing development at nation-wide level. Since the program inherently focuses on built-environment as much as social interaction, it demands a vital role of architects and practitioners to comprehend diverse conditions of development. The authors portray the direct experiences derived from the architects and the program in design and construction process. As a practicing synthesis, the paper discusses on the apparatus necessitated for architects and practitioners towards better urban poor housing development. Four sets of tool are exercised differently in each period and process: in data gathering period, in taskforce conformation period, in design and planning period, and in construction period. The entire synopsis can be summed as two significant lessons. First, architects and planners play the role much beyond as designers, but as strategic planners, facilitators and coordinators. Second, each set of tools is pertinently effective at each community depending on local politics, physical condition, and community socio-economic condition. Each of which causes prioritizing how and when to effectively exercise for result-based outcomes.

Introduction

Today, conventional design and planning process has no longer tackled diversity in particular context. Mentioned by Healey (2005), the rational planning in the 1970s and 1980s ignored the context in which the planning process is mobilized. Wates and Knevitt (1987) also supported that conventional architect concerns on product more than on process, meanwhile community architect emphasizes conversely. With regard to contextual diversity, Healey (2003) also described the diverse context of economic, social, and environmental aspects in Collaborative Planning through institutionalization and governance processes. Sapu (2009) advocates Healey’s concept explaining the contextual factor in Interactive Planning. Firstly, the institutionalization is scrutinized through relationship among governmental and local administrative structures, network and partnership, community and leader groups, and even actor characteristic. Community empowerment, secondly, should be the one
of fruitful indicators including sense of belonging, social justice, accountability, and social capital. Although the contextual factors, appearing during interaction between dynamic social structure and empowering situation, are crucial that planner and designer should take into account, the authors emphasize hereby that instrumental means help better handling in planning situations.

This paper aims to disclose varieties of designing and planning apparatus experienced from urban poor community development in Thailand, derived from many community architects who practice in the nationwide urban poor community development – Baan Mankong Programme (BMP). Some discussions reveal the diverse instruments as the experiential knowledge of community architecture in Thailand.

**Urban Poor Community Movement in Thailand**

Magnitude movement for urban poor community development was triggered by Thai government in 2003 through BMP or “Secure Housing” programme. Initially, ten pilot projects portrayed community-driven processes to planning and improving their own community. The programme directly subsidized community groups for basic infrastructure and environment improvement (Boonyabancha, 2005). With this regards, collaborative planning and mutual learning are the backdrop of BMP processes. Community people steer it through learning by doing activities in trial and error method. They organize the activities such as surveying, finding the alternatives, problem solving, and self-evaluating. BMP focuses on community-driven process by encouraging the steered structure in both community and city. Although, it has been prompted by national policy and subsidization, the squatters in Thailand - approximately 285,000 households in 200 cities (Boonyabancha, 2005) – could not be sufficient by tailor-made process. The collective experiences highlight that network mechanism and city-wide planning help dealing with massive number of urban poor communities. Furthermore, city-wide process encourages the exchanged learning network, cross-balanced investigation, reciprocity, social capital, and power delegation as the by-product of BMP.

Urban poor community development in BMP can be classified into four groups (Boonyabancha, 2004). The First, it is the onsite upgrading, one of classical approaches. Re-blocking, second, is the way to reconstruct some parts where confront the critical problem and cannot be improved by the onsite upgrading. Third, it is that the community situation cannot be resolved by two aforementioned methods. Reconstruction is one of community development options, appropriating with such case. Ultimately, a community, which cannot be developed in the current land, should be relocated to another appropriate land parcel. Many reasons behind relocation are that urban poor community locates on place that is not allowed and unsuitable such as private land, flooding or disaster area.

In summary, Baan Mankong Programme (BMP) aims to encourage citizenship space and multi-dimensional driven mechanism from neighbourhood and community to regional and national levels. To deal with complicated problems in urban poor community, multi-
dimensional network weaves diverse organizations and people groups to be local and regional partnerships. These partnerships could overcome limitations of regulation, local policy, and even, organizational culture.

The Diverse “Apparatus”

The section is divided into four stages—data gathering, taskforce conformation, designing and planning process, and construction process.

1. Data Gathering Period

Information is powerful resource that could encourage networked societies (Innes, 1999). The understanding of information in term of planning, nevertheless, is not clarified. Generally, rational planner describes information as technical methods, such as, statistic and problematic analysis. On the other hand, information is portrayed in terms of hidden agenda, conflict of interest, and social capital, particularly in ethnographic study (Healey, 2003; 2006). In current urban planning theory, it is seemingly that information flees from mean-to-end method to ethnographic study. For Baan Mankong programme, the instrumental varieties could be designed to understand the information depending on particular community situations.

Household and Neighbourhood Data: Inside-out Understanding. In general, household information is characterized as statistic data, for instance, the figure of family members, gender, income, religion, and so on. However, these data are insufficient for understanding of community. Therefore, the disguised relationship, which cannot be revealed by statistic, should be observed, such as, power exercise, family history, and importantly, interest of stakeholders (Hoch, 2007). For community architects, they should design the instrument (as in Figure 1) to attain such information through interactive interview, observation, discussion, and even experiment.

![Figure 1 Neighbourhood and sub-group relationship mapping in community](image)


Spatial Survey: Mutual Understanding. Space is more powerful not only in environmental studies but also political and social science (Healey, 2007). Space is embedded in both tangible and intangible cognition. Therefore, spatial survey will disclose different pieces of information that can encourage people groups to get involve. Furthermore, community could reach mutual understanding through exchange and discussion on spatial information. For instance, the survey of individual shelter’s size in squatter help dwellers to understand better the spatial dimension where appropriates to their own behaviour (Figure 2).
Material Survey: Resources Understanding. In urban poor community development process, an existing construction material is resource that can minimize construction cost. It can be categorized to two sources. First, materials from each existing shelter could be recycled for rebuilding and repairing a new one. Generally, timbers, wall panels, and roofing sheets are investigated by community construction team to summarize the available materials that can be reused. Second, local material is another option that it is not included in the pricing system.

Community and City Mapping: City-wide Understanding. Mapping is one method to put important parcels of information into a common based map. To understand the relationships of information, mapping obviously illustrates data from community to city-wide. Particular fragmented information, such as insecure land for urban squatters, insufficient basic service, and environmental problem, would be accumulated into the holistic scene, especially in public and private urban development projects, and the vacant public and government lands.

Housing Pattern Survey: Pattern Understanding. For general understanding, squatter house has always been in poor and inappropriate living condition. Conversely, community architects believe that the house in slums is an organic and a form of causality relating with the user behaviour, income, skill, occupation. House in squatter has been limited by size of land plot, regulation, and importantly family income. The space pattern in each house can illuminate the owner’s life. For example, kitchen space in some slum house is located at the front because it is comfortable for a housewife to mind her children and house.

2. Taskforce Conformation Period

Human is center of development, therefore, they should be prepared before the process. This section describes the “apparatus” for encouraging people through varieties of mutual learning and understanding in urban poor housing development process.

Understanding City and Community: After community architects and clients gather the significant parcels of information into the common-grounded map, anyone can read the relation of such information. As a result, one understands what and why a city and a community should be developed. Furthermore, this understanding conveys not only to a holistic image of the city, but also to a micro scale study, particularly in household analysis. Community architect should scrutinize in both city-wide approach and deepening in detail. The key success is to link from each small case of poorest

Figure 2 Spatial survey on grid paper was organised by community members
Source: Sapu and Usavagovitwong (2006)
family study to city development programmes. For example, in the case of garbage collector’s families, community architect should follow their daily life and understand via anthropological method – to understand what they do, how they survive, and where they collect the garbage, and etc. Therefore, community architect shows the fabrication / relation between urban poor occupation and the development arena.

**Encouraging Mutual Learning:** Friedmann (1973) highlighted that traditional planning ignores tacit and experience knowledge. As a consequence, the gap between a planner and a client is extended. He attempts to alternate other possible knowledges in planning. With regard to Baan Mankong Programme, experience knowledge is valuable for urban poor community people. They can exchange different experiences for instance saving-group lessons, construction skills and managements, or even community welfare initiatives. One of important roles of community architect is how they can encourage mutual learning mechanism and space among urban poor communities. Moreover, these lessons are useful not only for communities but also for community architects.

**Mutual Imagination:** Mutual imagination among community members is necessary because each might not exactly visualize the same. To attain common vision, community architects should encourage the members to foresee the development change. Architect could design the process for fostering mutual imagination, for instance, participatory drawing and painting for both children and elderly people (Figure 2).

**Children Activities:** Children activity aims to create interactive space for the coming generation in each community. For community architect, a game such as *photo safari*, *evaluation rally*, and *children arts* is a set of instruments, organized for the youth. For “*photo safari*” and “*evaluation rally*”, children are divided into many small groups and compete to photograph the important places or things in community. In general, *photo safari* assigns them to be capable understanding the community asset, whereas they will be questioned for evaluating positive and negative aspect in *evaluation rally*. With regard to children activity, the fresh idea for community development will be crystallized by group of adolescent.

![Figure 2 Mutual imagination is facilitated through participatory drawing and painting](image)

Source: Sapu, 2004

3. **Designing and Planning Process**

**Design Criteria Consensus:** Conventionally, design criteria are given by the architect, but community design criteria should be clarified by the community people. The design criteria help conveying to reach common consensus, particularly in both inner and between communities. For instance, linear communities where located along river, road, or railway are necessary to come up with common criteria amongst.
The guideline illuminates common problems and difficulties among communities, and posits the further development solutions such as shared spaces derived from public transportation, semi-decentralized sewage systems, water and electric systems between communities, and etc.

**Scale and Proportion:** Scale and proportion is a basic foundation for spatial design taught to students in architectural school. Unfortunately, for the urban poor, they are unfamiliar because architectural students are trained on American’s matrix (i.e., meter and centimeter), while the majority is accustomed with Thai measure system (i.e., wa and sok). Therefore, the understanding of scale and proportion is exchanged between architect and community member. Merely at best, one learns from human scale or 1:1 scale on site. **Mock-up design or 1:1** design is very rigorous for these lessons because people can walk inside their own design and consider on problems before building their own house (Figure 3).

![Mock-up design](image)

**Alternative Design:** One of limitation for planning and designing urban poor community is the gap between planner and client. In several cases, alternative design can bridge that gap through mutual learning. In fact, architects can design more than 100 alternatives in one community depending on their experiences. Thus, if people experience more alternatives, they would come up with many solutions. That is a reason why community architects should present many alternatives for mutual learning, instead of consensus building.

![Alternative designs](image)

**Mutual Design:** Participatory design does not mean design for all, but all for design. Community architect strongly believe that everybody have different experiences, thereby they could design their own house and community by themselves. The architects should support the toolkit for the clients. One example for this exercise is that the 1:100 or 1:200 grid-line papers are arranged for community members. Afterwards, they design their own plot size and house on the papers. At the end of meeting, they array down them on the land plot and discuss for making consensus in design and planning scheme (Figure 5). This mutual understanding then later becomes the community regulation.
Model: Likewise mutual design toolkit, model is an instrument operating in participatory process. Moreover, this method aims to encourage interactive space among community members. Model and gridline paper is not only apparatus for design, but also encourages the face-to-face interaction. Community design and planning principle deeply trusts that face-to-face interaction is only the best way to dissolve any disguised problem. As Friedmann (1993) said, the collaborative planning attempts to shift from representative meeting to face-to-face interaction in the real time (referred by Brand, 2007).

On-site Design: The housing increment in slum is an inside-out process from household unit to community cluster. In some cases, shelter alignment is blocking community pedestrian because of blurred periphery between individual and public space. For community development, on-site design is an appropriate approach to deal with this situation. Community members and architects can walk into the real location. In this case, design is an instrument for negotiation between house owner and community members.

Regarding the new relocation site, on-site design is not functioned as negotiation. Yet, it plays the role for social interactive space. Normally, housing relocation programme consists of diverse households, both familiar and unfamiliar to one another. Hence, on-site design is a channel to catalyse social fabric in the new community.

Design Consensus-building Mechanism: At the final stage of the design and planning process, community architects draw attention to consensus-building. Consensus-building mechanisms can be designed to multi-level scale from neighbourhood, sub-group, and community. The agreement can be attained on each scale, but there is recently no absolute formula for consensus-building. Community situation brings on the mechanism; therefore, community architects should read the context before design consensus-building arena.

4. Construction Process Period

Technical Training for Local Craftsmen: This process aims twofold. First, it is to mutually share a diverse perspective in construction process between architects and local craftsmen/technicians. Second, it is to bridge the gap of understanding between local residents and craftsmen during the construction period.

Construction Planning: The architecturally school-trained professional approach might be inappropriate at the beginning. The architects should firstly read the community power structure and pull any construction phase into public beneficiary. For instance, construction of public walkway could change a community conflict of interest into a common mindset of development. Also, other pertinent behaviors, affected to construction
period, such as the labor scarcity in raining season and the phasing balance in upgrading scheme, are crucial.

**Working Taskforce Formulation:** The formulation of community taskforce on construction process is a simple solution, when the architects and planners are insufficient. However, setting the team requires a managerial design. On one hand, architects and planners are anticipated to train the technical representatives for mechanizing construction process. On the other hand, they have to provide a community space as a mutual learning dialogue among dwellers to balance the power, and to avoid forthcoming conflict.

**Material Management:** The construction material has been the significant issue which demands for managing. In BMP, the system covers two items: storing and purchasing. In practice, two options are exercised either the centralized or decentralized system. Centralized system refers to the communal management both storing and purchasing, while the decentralized system refers to communally purchasing and individually storing.

**Craftsmanship Network:** The craftsmanship network is a group of skillful craftsmen under the BMP. The craftsman caravan has been another option for circulating the technicians to communities where they are scarce. This is a temporary solution during the construction process at the critical phase which might need a specific technical assistance.

**Conclusion**

The authors provide the design and planning apparatus experienced in urban poor housing development under the BMP. Effective function in using these tools depends on available contexts. The entire synopsis can be summed as two significant lessons. First, architects and planners play the role much beyond as designers, but as strategic planners, facilitators and coordinators. Second, each set of tools is pertinently effective at each community depending on local politics, physical condition, and community socio-economic condition. Each of which helps architects and planners for prioritizing how and when effectively exercise for result-based outcomes.

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