Design Tools and Three Steps in Participatory Design Processes: A Proposal for Better Communications among Residents and Experts, based on a Case Project of Neighborhood Park in Seoul, Korea

Hyun-Chan Ahn, Ph D. Student*
So-Hyun Park, Professor
Program in Urban Design
Seoul National University, Korea

* first author: kdlpkid@naver.com

Abstract

Participatory design projects in Korea became more popular since the mid-1990s, when the Korean public administrations changed its systems from the previously strong centralization to the new local self-governance. In most of the public projects that mandated the public participation, however, the kinds of participation tended to be at the minimum level, such as holding the required public announcements and public hearings.

As the substances of the participatory designs are increasingly in demand these days, it becomes more necessary to provide proper design tools and processes for better communications among the residents and experts. Based on a case project of the Sung-seo pocket park in Seoul, Korea, this paper proposes a few practical alternatives of design tools, applied to the three steps in the general participatory design processes. The three steps are 1) public information; 2) design workshop; and 3) feedback.

The paper argues, among others, that utilization of appropriate design tools in each step contributes to better communications among residents and experts, which would eventually enhance the mobilization of community sprits among all participants.

Keywords: participatory design, communication, design tools, visualization

1. Introduction

In the 1980s concerns about participatory designs in Korea emerged largely in response to the mass-production of monolithic, large-scale developments of the apartment complexes. Then, in the 1990s as the Japanese cases of the participatory community design, called Machitchkuri was widely referred to in Korea, both academicians and practitioners applied it to many small urban design projects.

Beyond the mere application of the foreign cases, the localization of the participatory design was inevitably pursued as a focus of researches and practices. The participatory design became a part of the social movements, in which grass-root citizen participations played bigger roles than before.

To provide better processes and products in participatory designs, the communication among residents and experts is one of the most important matters. Existing studies point out that expert-oriented design tools are obstacles for active residents` participation.(Kim, 2006; Woo, 2006; Mun et al., 2004; Park, 2001) Based on a case project of the Sung-seo pocket park in Seoul, Korea, this paper examines the characteristics of design tools and processes, and proposes a few alternative design tools, targetting three steps in design processes.

2. Case overview: Sung-Seo pocket park project

The Sung-seo pocket park is in Sungmisan neighborhood of Seoul, Korea.

Sungmisan neighborhood is located on the northern section of the Han River in Seoul. It is a typical low-rise, high-density residential area of multi-family homes in Seoul. There is Mt. Sungmi at the center of the neighborhood. Mt Sungmi is a significant place for the residents, because they play do sports, take a walk, and grow vegetables there.

About 10 years ago, several residents of Sungmisan neighborhood got together to make their neighborhood more livable and more environment-friendly. They established a local cooperative market for organic foods; held community festivals regularly; and ran day-care centers and an alternative school for their children. Recently, the residents' interests got expanded to

the making of their neighborhood streets safer, more walkable and greener. They wanted to accomplish it through residents' consensus, guided by design experts. The Sung-seo pocket park was one of the first such pilot projects. Students of the Graduate Program of Urban Design at the Seoul National University and an NGO group, Urban Action Network called Do-Si-Yun-Dae, worked with the residents for this project..

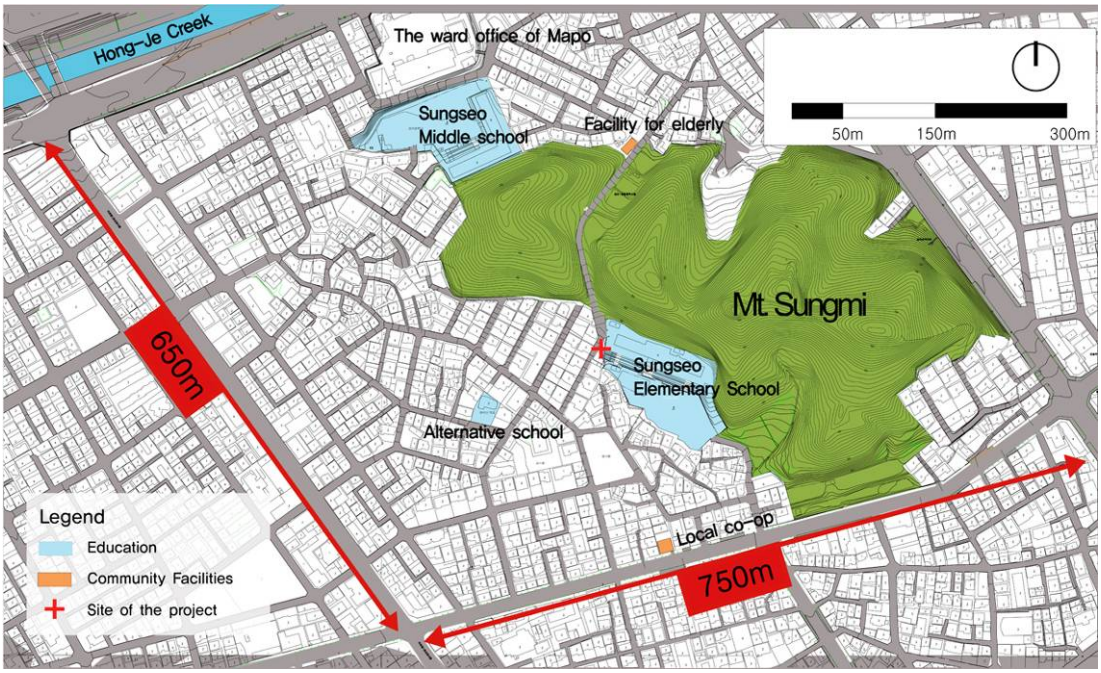

Fig. 1 Existing of Sungmisan neighborhood (source: community design, Program in urban design, SNU, 1st semester, 2005)

The site of the project was an abandoned lot nearby the rear gate of the Sung-seo elementary school. The residents and experts worked together for the transformation of the site to a pocket park for seven months.

The Sungseo pocket park project is implemented as one of the neighborhood park movement, called *Hanpyung-Gongwon movement.* The Neighborhood park movement (*Hanpyung-Gongwon)* creates small community parks out of left-over neighborhood spaces. It is through resident participations, and largely funded by both public and private grants. Since 2002, UAN has completed about 13 pocket parks in collaboration with the residents. The neighborhood park movement represents a symbolic case of participatory designs in Korea. The movement aims not just tree-planting but community building, would eventually improve neighborhood environment and reinforce the relationships among residents.

3. Literature Review

As for the attributes of design tools in participatory projects, it is necessary to understand what the design processes are about. Among others, Barton, H. et al. (2003) provided 7 steps for shaping neighborhoods, and Wates, N. (2000) suggested a scenario to reuse derelict areas. UAN (2004) also generalized the process of *the Neighborhood Park Movement*. Based on them, the general processes of participatory design could be charted as follows.

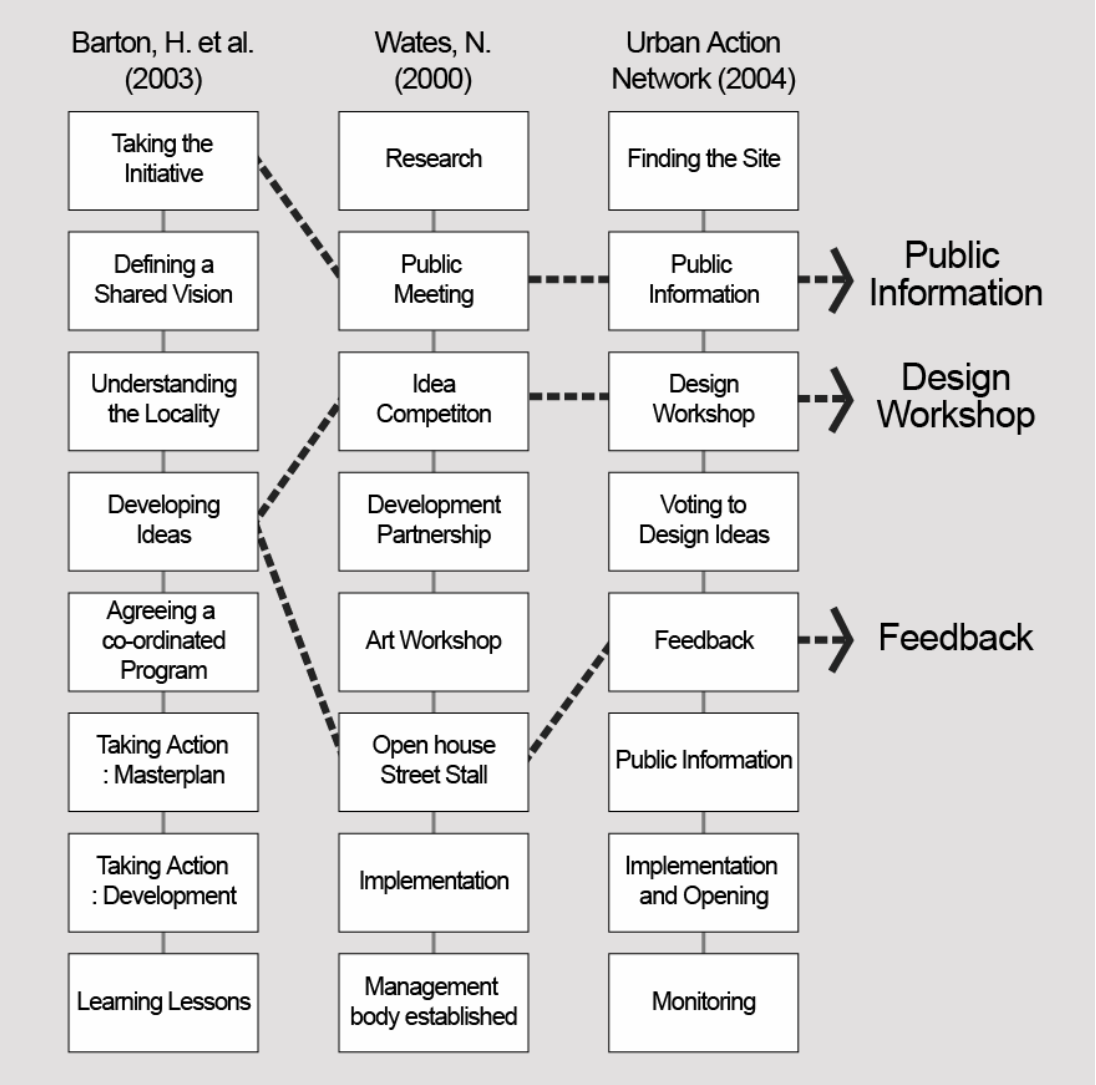

Fig. 2 Processes of Participatory design

As seen in the Fig. 2, the general steps in the participatory design processes share common characteristics and assignments, such as taking action and implementation. This paper specifically examines the three steps, which are 1) public information, 2) design workshop, and 3) feedback. These three steps are critical especially for the improvement of communication among

residents and experts.

From the previous researches, the general attributes of design tools in participatory design can also be classified into five elements. Those are 1) Legibility (Mun et al., 2004; Hall et. al., 2001), 2) Reality (Robinson et al., 1975; Kim, interview), 3) Handiness (Al-Kodmany, 1999; Hamdi & Reinhard, 1997), 4) Fun (or Enjoyment)(Wates, 2000), and 5) Flexibility.(Hamdi & Gorthert,1997; Wates, 2000) Based on the above five elements, the design tools used in the case project were devised.

4. Description of the project

Step 1: Public information

The Public Information step was arranged to inform residents of the project in efficient and enjoyable ways. It was tailored for the residents who participated in the community festival, which was held at the early stage of the project. Two design tools were used here, which were *problem puzzle* and *model kit for park design*.

Problem puzzle showed the participants various pictures of the neighborhood to inform the problem around the site. There were some dangerous problems on the streets and the residents needed to know them.

Unlike the typical public information methods*, model kit for park design* was specifically contrived to inform residents of the site, design method and process in a more integrated way. It was assumed that information about design processes and methods would increase the degree of residents` participation. Indeed, participants were greatly interested in this tool. But it takes long time to prepare this kind of model kit and it is not flexible enough to accommodate various situations on the field.

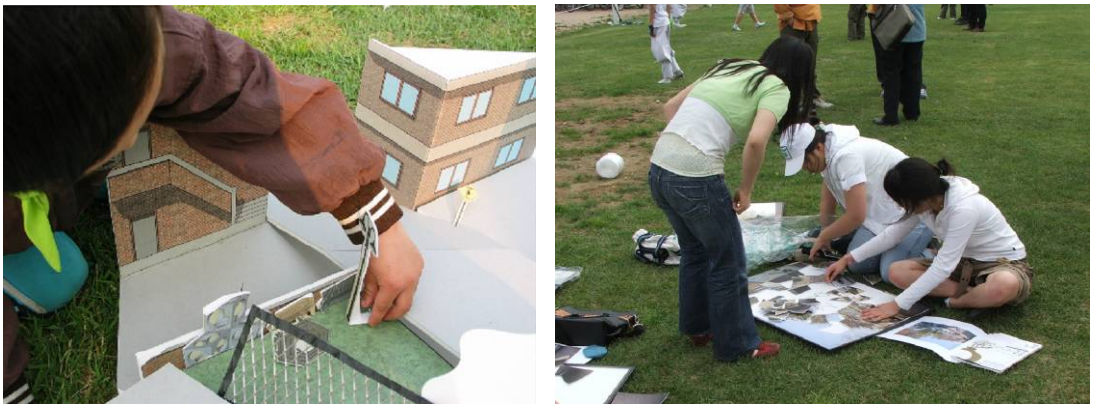

Fig. 3 Design Tools in Public information: Model kit for park design(left) and Problem puzzle(right)

Step 2: Design workshop

After the public information step, the expert team prepared the design workshop for about 150 students of the Sungseo elementary school (5th and 6th graders), which is adjacent to the pocket park site. The aims of the workshop were to include the expected main users to participate in the design process, to reveal their ideas and values, and finally to integrate them to the actual design.

In order to achieve these goals, the expert team made a main participatory tool, called *paper kit for park design*. It consisted of a base map and some kinds of item sheets, such as trees, benches, and paving patterns. The base map included rich and realistic information of surroundings, and like a blank canvas, participants were encouraged to add their ideas freely onto it. Item sheets were given to provide types and ranges of possible choices.

On the design workshop, the participants gathered in groups, cut the selected items from the sheets and arranged and pasted the selected items along with small post-it papers describing the reasons of their decision. By observation and monitoring after the workshop, the expert team confirmed that young participants could understand the tool easily and enjoyed using it.

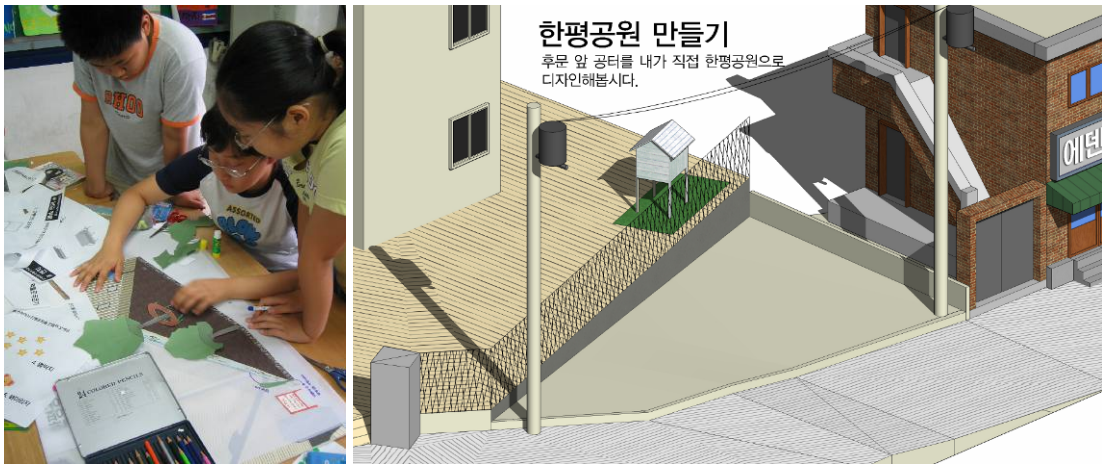

Fig. 4 Design tool in design workshop: paper kit for park design

Fig. 5 Outputs of design workshop (6th graders)

Step 3: Feedback

In the participatory design, design developments must be attained by feedback, because participants` ideas cannot be reflected on the actual design at once. Through the feedback step, the communication among experts and participants is most important. Traditionally, experts used to visualize their design ideas with drawings, such as plans, elevations, sections and perspectives. However, it is difficult for non-expert participants to understand such traditional drawings made of professional signs and terms (Carmona et al., 2003). Some people cannot interpret certain symbols, such as scale bars, compasses and various legends. They are rather familiar with and interested in the specific properties such as color, detail, and texture. Not only designed form or space composition, but they would also want to see what kind of activities and uses can be generated on it.

Referring to the differences in perceiving design symbols among experts and residents, we tried to modify a plan and a perspective drawing. Human figures were also inserted to demonstrate diverse activities on the plan,

which played a role of providing sense of scale. Specific attributes of design, such as color, texture, and materials were presented carefully and other design elements were also described as accompanied texts. As a result, the participants could understand the design output clearly and discussed it with the expert team more vigorously and precisely.

Fig. 6 Comparison two drawings: the plan for experts(left) and the plans in feedback(right)

5. Conclusion

From the case project of the Sungseo pocket park, this paper explained the characteristics of the three major steps in the participatory design processes. It also demonstrated the specific attributes of the design tools applied to each step. The main purpose was to achieve better communications among residents and experts. The findings from the case project could be suggested as follows:

1) The first step: *Public information* is to activate communications among residents and experts. The design tools here contribute to enhance efficiency of the project information by making its contents more thorough, diverse, and interesting.

2) The second step: *Design workshop* is to visualize residents` ideas and values. When developing design tools for this step, experts need to decide the degree of participation that residents can comfortably handle; simplify design process as a design process guideline; and provide more diverse and precise items.

3) The third step: *Feedback* is for participants and experts to develop the design together. As the key communication methods, drawings are to be changed in themes and methods of visualization. Themes of visualization are extended to activities and uses. In the methods of visualization, it is helpful if specific properties are realistically expressed on the drawings.

We, as design experts, are required to make design tools more suitable for specific residents by modifying design tools more appropriately in each step and to test them in practices continuously. Such design tools can play important roles in improving the communication among residents and experts in participatory design. Better communication would eventually enhance the mobilization of community sprits among all residents.

6. Reference

- Al-Kodmany, K., “Using Visualization Techniques for Enhancing Public Participation in Planning and Design: Process, Implementation, and Evaluation”, Landscape and Urban Planning, Vol. 45, (1999), pp.37-45.
- Barton, H et al., Shaping Neighbourhoods: A Guide for Health, Sustainability and Vitality (Spon Press, 2003).
- Carmona, M. et al., Public Places Urban spaces: The Dimensions of Urban Design (Architectural Press, 2003).
- Hall, K. B. & Poterfield, G. A., Community by Design: New Urbanism for Suburbs and Small Communities (McGraw-Hill, 2001).
- Hamdi, N. & Goethert, R., A Guide to Community Practice (John Wiley & Sons, 1997).
- Kim, H., “Research on the Process and Visualization Techniques of Urban Design Workshop”, Architectural Institute of Korea, Vol. 22, (2006), pp.153-162.
- Mun, T. et al., “A Web-based Collaborative Urban Planning Model Using Visual Communication”, Korea Planners Association, Vol. 39, (2004), pp.23-36.
- Park, W., “A Study on Design Kits for the Participatory Design on Individual Units in an Apartment Housing”, Korean Institute of Interior Design, Vol. 29, (2001), pp.128-136.
- Urban Action Network, Han-Pyung Park Making is a Residents Participation (Urban Action Network, 2004).
- Wates, N., The Community Planning Handbook (Earthscan, 2000).
- Woo, S., “A Study for Development of On-line System for Residents Participation on Agreement Process”, Korea Planners Association, Vol. 41, (2006), pp.41-52.