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ZHU MINGJIE

The Applicability of Participatory Design for Urban Community Building

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Participatory design was introduced in Scandinavia in the 1970s, which invites researchers, designers, developers and users to participate in software design together for promoting democracy in the workplace. This research focuses on the application of participator design in community building, which regards participator design as a process of community self-organisation and development through community mobilisation and collective action. Particularly, the thesis examines the interrelationship between participatory design and community, and the adaption of participatory design within the community context of Mainland China. With regard to the concept of "community differential mode" suggested by the Chinese sociologist, Xiaotong, this study proposes specific design strategies and summarises three general principles [dynamic, transform and progressive] to enhance the applicability of participatory design in mainland China.

THE APPLICABILITY OF PARTICIPATORY DESIGN FOR URBAN COMMUNITY BUILDING

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The Applicability of Participatory Design for Urban Community Building

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A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

November 2018

CERTIFICATE OF ORIGINALITY

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_____   _____ (Signed)

_____Zhu Mingjie _____(Name of student)

Abstract

Participatory design was introduced in Scandinavia in the 1970s. This approach invited researchers, designers, developers and users to participate in software design together for promoting democracy in workplace.

Later on, participatory design has applied in the field of architecture and planning. Towards a better quality of public space and life, how multiple stakeholders participate in design and governance has become an significant research and design issue ever than before. This research focus on the application issue of participator design in the aspect of community building which is a process of community self-organization and development through community mobilization and collective action.

Inspired by the experiences and reflections of three participatory workshops held in different culture backgrounds developed in the early stage of this research, the author proposes that the applicability of participatory design in different community context is a key design challenge. This thesis explores two research questions: (1) "What is the interrelationship between participatory design and community?" and then (2) "How to adapt participatory design in response to community context?"

Through literature review, the author reviewed the development of participatory design from the information field in the Nordic region to the community planning and construction all over the world. The author then summarized the current state of application of participatory design approach in community building, including the ladder of participatory design, processes, tools, and types.

The author conducted a multi-case study on the applicability of participatory design based on Shanghai. She collected data from participatory observations, and adopted coding analysis approach from grounded-theory and discovered the interrelationship between community and participatory design.

The research finding reveals the coupling between participatory design approach and community mode. On the one hand, the Chinese mainland communities show the characteristics of "community differential mode". This conception was initiated by Fei Xiaotong, a Chinese sociologist, that the concept has revealed the profound social structure in China and is still performing in nowadays community. In Chinese mainland community, the differential mode has been embodied in five aspects of the rural flavor, the resilience of family

boundary, relationship circle, hierarchical order and the absence of public morality. The mode plays a two-way role of enhancement and suppression for participatory design approach.

On the other hand, participatory design also affects the community by reconstructing its differential mode. The participatory behaviors of empowerment, mutual understanding, collaboration, mutual benefit and diverge, together with "non-material" design outputs of community interactions, community consensus and community rules, have deconstructed the existing differential mode of the community to a certain extent, creating a more flat community structure of "group mode".

Hence, when adopting the community mode, the designers should take more consideration about the affection from community differential mode, and promote participatory design by consciously accelerating the performance of the above-mentioned participation behaviors and enhancing the above design outputs. After proposing the specific design strategies based on the differential mode under Chinese mainland context, three general principles (i.e., dynamic, transform and progressive) have been summarized for enhancing the applicability of participatory design.

The contributions of this research lies in: (1) filling in the research gap of the applicability issue in community building; (2) pointing out the interrelationship between participatory design approach and community mode rather than a one-way effect; and (3) the action-based case collection has practical impetus for local community building.

Community building in Chinese mainland is still in its infancy. The author expects that the research would bring inspirations to researchers, designers, social workers, and persons involving in participatory design and community building.

Key Words: participatory design, community building, differential mode, applicability

Publications arising from the thesis

Siu, K.W.M., & **Zhu, M.J.** (2014). Public design under the perspective of public: Gōng and gòng. *Art & Design*, (9), 113-115.

Zhu, M.J., Siu, K.W.M., Ni, M.N., & Song, D.J. (2015). Amplifying the ingenuity of community self-organization：A collaborative design workshop in Shanghai. *Public : A Journal of Imagining American, 3*(1). https://public.imaginingamerica.org/blog/article/amplifying-the-ingenuity-of-community-self-organization-a-collaborative-design-workshop-in-shanghai/

Siu, K.W.M., & **Zhu, M.J.** (2016). Neutral equilibrium in public space: Case study of Mong Kok Flower Market, Hong Kong. In J. Chaiana & J. Hou (Eds.), *Messy urbanism* (pp. 137-153). Hong Kong: Hong Kong University Press.

Gao, B., Siu, K.W.M., & **Zhu, M.J.** (2016). Service design as the service and social innovation for Shanghai urban mobility: an experimental project of smart mobility. In *The Proceeding of International Conference on Design History & Design Studies* (pp. 271-277). São Paulo: Blucher.

Zhu, M.J., & Siu, K.W.M. (2016). Urban acupuncture as a strategy for public space renewal in old communities. In Z. Liu, L.Q. Xu & W. Lu (Eds.), *The rejuvenation and regeneration of built environment: Proceedings of the 12th International Symposium on Environment-behavior Research* (pp. 1198-1023). Chongqing: Chongqing University Press.

Ni, M.Q., & **Zhu, M.J.** (2017). *Open your space: Design for urban resilience.* Shanghai: Tongji University Press.

Zhu, M.J. (2020). Research on the applicability of participatory design for urban community renewal. *Urbanism and Architecture, 17*(344), 24-25.

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Chapter 1: Introduction

1.1 Research Background

███ Social Context

1.1.1.1 Social Innovation Design and Stakeholders Participation

In the current era with a rapid economic development, many social problems such as environment pollution, educational injustices, wasting of resources, have become prominent, provoking deep thoughts on the social value of design. This reflection started from 1960s, when famous design ethicist Papanek (1984) stated that although some industrial designs appeared to be successful, they were irresponsible for the ecological environment. He emphasized the social responsibility of designers. Influence by his claim, more designers and scholars began to consider the innovations from designing for major market to designing for the public.

The research and practice of social innovation design has sprinted up in year 2005 due to the foundation of DESIS network (Design for Social Innovation towards Sustainability). From year 2009 to 2011, DESIS spread in several regions of the world, establishing partnerships with other entities and evolving towards a network of Design Labs based in design schools and in other design-oriented universities and operating with local, regional and global partners to

promote and support social change towards sustainability. More than 40 global laboratories conduct academic exploration and practice in different social fields including public cooperation, distributed open manufacturing, informal economy, aging, food etc. and promoting the building of sustainable community.

The idea of social innovation design is reconstructing the goals, objects, theories and methods of design, also redefining the role and positioning of designers, bringing challenges to related design propositions. The design itself is expanding from providing a specific and optimized "object" to providing a systematic and integrated solution that can promote a certain state including "object" and "service" and could also provide its own value for the development of social innovation (Lou, Valsecchi & Diaz, 2013).

The course of social innovation design is "a series of non-linear steps and actions to gradually get the communities involved and help them to establish and experiment with social innovation schemes" (Manzini & Meroni, 2014). Social innovation copes with those neglected social problems, strengthens social conditions and empowers citizens to become co-creators of innovative social relations.

Further on, in social field, design is evolving from dealing with simple objects to dealing with more complex social and system-level issues. The design process should create an intermediary space so that interdisciplinary teams can cope with issues and work together from their respective professional point of view.

Therefore, it reminds us that stakeholders participation is one of the most core features of social innovation design. Participatory design methods are being proved to be able to make contribution to social innovation (Bjögvinsson, Ehn & Hillgren, 2012), and is also bringing new changes to the requirements, capabilities and positioning of designers.

1.1.1.2   The Expansion of Participatory Design in Urban Communities

Participatory design are recognized as dating back to the workplace in Scandinavia in the 1970s. Participatory design method plays a role as communication tools between professional IT technicians and ordinary workers. Later on, participatory design has extended to other fields including urban development. A study of "100 urban trends" conducted by BMW Guggenheim Research Office in New York, Berlin and Mumbai, illustrates that the concepts with meaning of "participation", such as bottom-up urban participation, community-based development,

citizen empowerment and active citizen spirit and so on, is one of the most important trends in

future urban development (Figure 1.1).
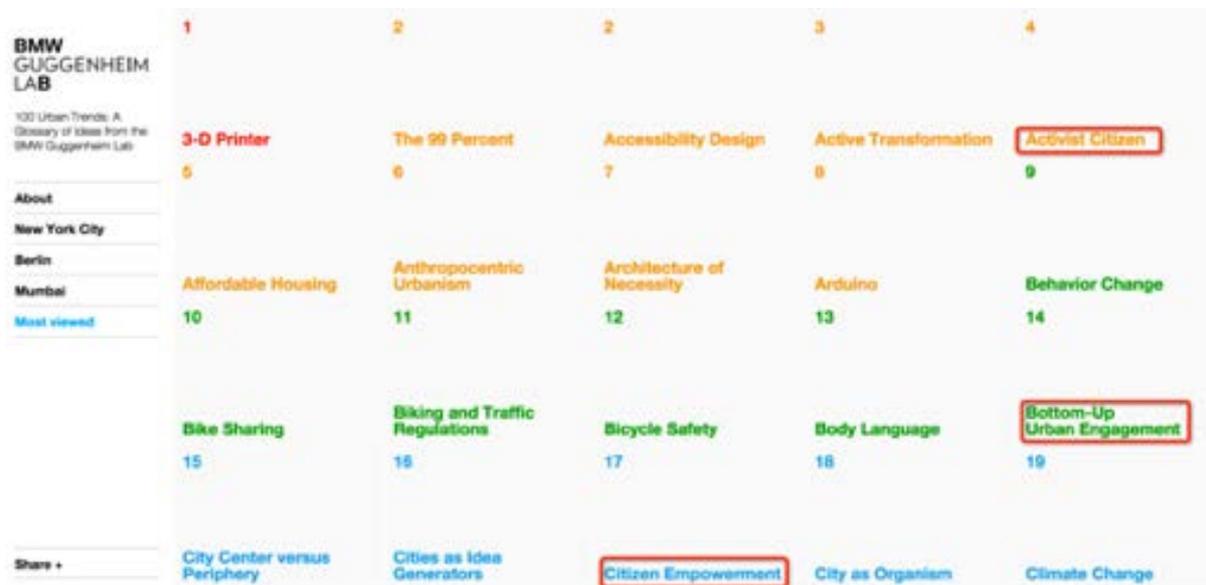
Figure 1.1 100 urban trends (resource: http://www.bmwguggenheimlab.org)

▮▮▮ **Personal Experiences**

1.1.2.1   **Three Participatory Workshops**

Participatory workshop1: design with local villages for rural kitchens

In August 2009, I participated in a design workshop with multi-disciplinary and multi-

cultural international schools. Taking rural kitchens as its design subject, this project aimed to

improve the environment of rural kitchen facilities by discovering relevant problems and

potential opportunities. We invited more than ten villagers who are the final users of kitchens

to join in the workshop. Considering the villagers' limited knowledge level and expression

ability, we provide a simple game prop "Yes/No Board" to encourage them to express their

opinions (Figure 1.2). The adoption of props stimulated villagers' enthusiasm for participation.

Figure 1.2 Villagers raised the sign board (Photo source: taken by the author)

Participatory workshop 2: Design with elderly for community environment

In August 2012, the author organized another participatory workshop in Shanghai with 15

elderly people. They were invited to redesign their living public environment. Scene drawing

was the main design tool to encourage the elderly to describe their existing living conditions

and their future imagination of public environment (Figure 1.3).

Figure 1.3 Participants drew their living environment (Photo by the author)

Participatory workshop 3: Design with multi-stakeholders for back alley

The third workshop was held in year 2014 when the author took her exchange-study in

Hong Kong. Under the support of Jockey Club Institute of Social Innovation in Hong Kong

Polytechnic University, the author jointed in the reconstruction project of redesigning back

alley in urban areas.

The background of this project was traced back to late 1980, when Hong Kong's industries

were continuously transferred to the mainland due to the relatively cheap land and labor cost

there. In Kwun Tong, east of Hong Kong's Kowloon District, a large number of factories have

been left vacant due to decline of manufacturing industry, therefore the development of creative

industries, retail businesses and offices became the focus. In 2011, as part of Kai Tak's

development plan, the Hong Kong government launched the Kowloon East Urban Renewal

Project. Then Jockey Club Institute of Social Innovation Design and the Energizing Kowloon

East Office worked together to conceive a practical and sustainable development blueprint for

this region. The design team formed by graduate students from Hong Kong Polytechnic

University and designers from the Jockey Club Institute of Social Innovation Design discussed

how to improve the coherence of the traffic network in Kowloon East, finally proposing the

strategy to transform the back alley into a pedestrian passage, a commercial space or an art

place. On the same day, the Jockey Club Institute of Social Innovation Design held a workshop

together with the owners and developers to work out a creative reconstruction plan of the back

line that concerned about pedestrian experience (Figure 1.4). During the workshop,

reconstruction plans were proposed by the four groups from different perspectives.
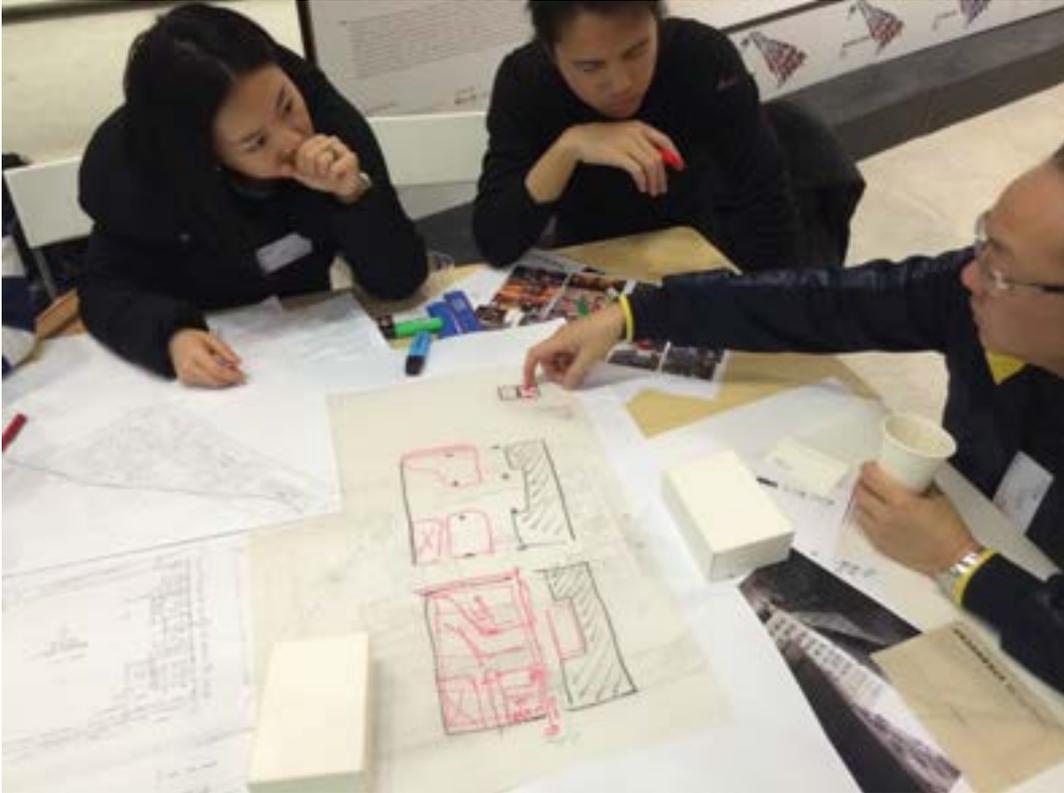
Figure 1.4 District councilor and designers discussed the layout of back alley (by author)

1.1.2.2 Reflections from Participatory Workshops

Above participatory design experiences inspired the author to clarify this research topic.

From these workshops, reflections on the participatory design process associated with

community began to take shape in my head, which were mainly two points as below:

Firstly, above participatory design involving designers and users were mainly conducted

in the form of design workshop. Workshop originates from clinical psychology which has been

widely used in the creation of drama and stage performance. It was initially introduced into

community planning by U.S. environmental designer Lawence Harplin in 1960. It allows

everyone to feel and communicate, acquiring the inspirations that are not restricted by fixed

ideas.

Towards the goal of community building, the impact of workshop is limited. As a kind of

face-to-face communication, it could help designers gather information and ideas quickly from

stakeholders. However, participants of the workshop is not able to cover the whole community,

and most of the design and participation could only take place in the lab. Therefore, most of

workshops mainly play a role at the idea stage and were not the comprehensive community

building. How should participatory design method be used to ensure the effectiveness of

community building in real social environment?

Secondly, different participation tools were adopted in these three workshops, and

participants' responses varied accordingly. In the workshop for rural kitchen, the users rapidly

accepted the simple expression of raising the sign board. While in the second workshop, those

commonly used design methods such as drawing and modeling were rejected by the elderly on

the grounds of "I have never drawn" and "I am not capable of drawing". In the third workshop,

the author participated as a researcher, but due to that the author cannot speak Cantonese,

interactions with the participants were not able to be conducted timely. Relying on someone

else's translation led to low degree of my participation during the whole process. Visibly, both

the methods and processes of participatory design need to be adjusted for different situations.

Then, how is participatory design influenced by a particular community and how can the

methods and tools be adjusted according to the characteristics of this community?

The above reflections drove me to inquire two questions. The first one is to explore the

essence of participatory community building and the second is to investigate the influence of

community on participatory design. Based on the above two, "participatory design" and

"community" were considered to have close correlation with each other. They could be

regarded as two closely related objects to study their relationship and explore the interaction

and influence between them in order to improve the effectiveness of the design method and

realize the localization of community building (Figure 1.5). Bearing this purpose in mind, the

author further reviewed related literature based on the interpretation of key concepts.
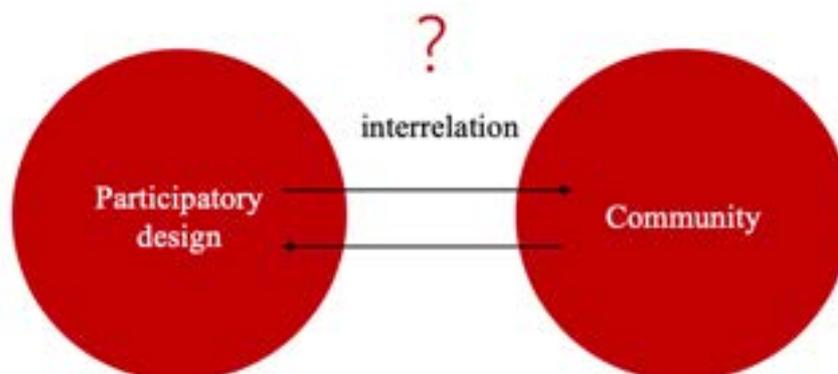
Figure 1.5 The study focuses on the interrelation between participatory design and

community (by author)

1.2 Definition of Key Terms

████ Participatory Design

Before defining the meaning of *participatory design*, it is necessary to define what "*participation*" is. In the on-line dictionary *Ci Hai*, "*Participation*" means to join in event as the role of second or third party.

There are at least two kinds of participatory activities. The first one is to join in an association. For example, visiting an exhibitions in the museum, participating in a community activity or election, could be considered as a kind of participation behavior. The second type refers to a more active and positive state in which people express their opinions on the purpose, responsibilities and methods of activities and then influence them with their actions, and even more, to dedicate personal thoughts and feelings into a group environment that contributes to a common goal and shares responsibilities.

Based on the concept of "participation", participatory design can be considered as the design behaviors with one or group as the second or third party. This brings interaction and communication between different stakeholders in the design process. Rather than limited to the professional identity of "designer", the stakeholder is expanded to other social roles. For

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example, both the final users and the designers could be either the design body or the participant.

In most current cases, however, designers usually occupy the role of design body, while other

stakeholders play subordinate roles.

The author further compare participatory design with other activities of community

participation, such as participatory development, participatory governance and participatory

budget to clarify the differences. The difference can be based on the understanding about

"design". Firstly, as a creative activity with innovation and strategy, design is to devise courses

of action aimed at changing existing situations into preferred ones (Simon,1969); Secondly,

design is a process more related to space, public experience and service, which is different from

political participation e.g. election voting and non-political participation e.g. sports and

entertainment. It gives the public the rights to change their own living environment.

Nowadays, the boundaries of design are constantly expanding, and design is not only for

objects in terms of application of software, products or space design, but has also expanded

from things to system level. The expansion of design concept itself has also enlarge the

boundaries of participatory design. Some scholars believe that the understanding about

participatory design should shift from traditional product design to design of "things" - the

aggregation of certain social substances (Bjögvinsson,Ehn & Hillgren, 2012). In this study, "participatory design" is defined as the collective behaviors of multi-stakeholders to express their opinions, exert influence, reach consensus and propose solutions towards a preferred situation.

In practical applications, there are several concepts that are easily confused with participatory design, namely, user-centered design, cooperative design, collaborative design and public participation.

User-centered design (UCD): This is a kind of " expert thinking" to regard users as the objects of early testing and later evaluation, while designers are responsible for the design process. The design practice and research evolution drawing by Sanders (2002) also proves this (Figure 1.6).
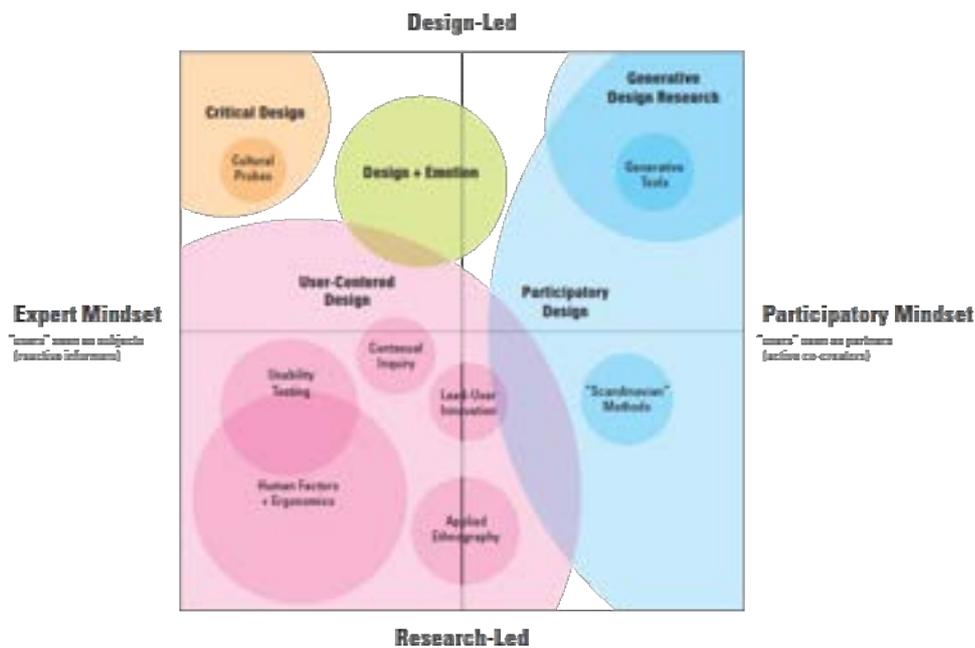
Figure 1.6   An evolving map of Design Practice and Design Research(Sanders, 2002)

Cooperative Design: To achieve a common goal, two or more design bodies or experts work together on different design tasks through a certain information exchange and mutual cooperation mechanism. Currently, this is mainly applied to the design of product or building structure via virtual platforms and software such as BIM (Figure 1.7).

Figure 1.7 BIM as an application of cooperative design (resource: https://image.baidu.com)

Public Participation: This is mainly about decision-making in decision making about science and technology policy, such as on issues concerning the management of environmental and health risks (Rowe & Frewer,2000) . It is also widely used urban planning to makes sure the public can get involved in and have an impact on planning decision-making. The normal methods includes referenda, public hearings and inquires, public opinion surveys, negotiated rule making, consensus conference, citizens' jury, citizen advisory committee, focus groups (Rowe & Frewer,2000). This kind participation ensures the mechanism of citizen participation at the policy and process levels, but it is more top-down alike. The emotional link between the planner and users is low.

Collaborative Design: Collaboration occurs when people come into contact with each other and exchange things such as time, care-taking, experience, expertise and so on to get certain benefits and collaboration process create sharable value (Manzini, 2015). According to this, collaboration requires exchangeable values between participants, while participatory design may not. As author believe, it is the first step to make people participate and join in together, and then their awareness of collaborative will be cultivated gradually.

The difference between collaborative design and participatory design is relatively slight, scholars even have combined them two as collaborative-participatory design(Scariot, Heemann & Padovani, 2012; Sanders & Stappers, 2008). It is also seen that the term of co-design is most frequently discussed at the participant design conference, while in academic journal *Co-design*, the term of participant design is frequently mentioned as well. The author believes that the differences does not affect the essence of pluralism behind participation.

The origin of participatory design could be traced back to the labor movement in Scandinavia in the 1970s. New technologies were introduced in northern Europe, but workers came across many problems when using them because the use of computer software relies on users' understanding about applications. The software designers need to get insight into the user's objectives and tasks, and invite the user to join the design process as dynamic participants (Men, 2006), so that they can offer feedback on the rationality and usability of the software for system optimization. Therefore, researchers including computer scientist Kiristen Nygaard and others began to involve users into the development of computer software, and completed projects such as Iron and Metal Workers' Union, UTOPIA, etc.

Later on, participatory design started to get attention in design field. In 1971, the International Conference of the Design Research Society was themed as "Design Participation" hosted by Nigel Cross.

In 1990, The first international Participatory Design Conference (PDC) was held in Seattle. Then PD conferences have been held every two years (Kensing & Blomberg, 1998) demonstrating that PD had been an academic topic with rich research significance. As Kensing and Blomberg (1998) indicated, three main issues have dominated the discourse in the PD literature: (1) the politics of design, (2) the nature of participation, and (3) methods, tools and techniques for carrying out design projects. The author also sort out the main research themes appeared in the nearly thirty years in Participatory design conference and two features has been listed as follows:

In the first, under the influence of labor democracy movement, the research on early participatory design focused on two important aspects that is politics and organization, paying more attention to the development of vulnerable areas and marginalized groups, such as women, children and the disabled. Community-based research showed up in the 3rd Participatory Design Conference held in 1996, and gradually became popular thereafter.

Secondly, due to that PD was initially applied in the computer technology, in a long time,

it is considered as a social technology system for designers to communicate with vulnerable

groups. As showed in the main page of participatory design conference website, participatory

design is about the direct involvement of people in the co-design of the technologies they use.

Very recently, we see an expansion of the application as defined by the conference in 2018 that

"Participatory Design is a diverse collection of principles and practices aimed at making

technologies, tools, and social institutions more responsive to human needs. A central theme

of Participatory Design is the direct involvement of people in the design of things, spaces and

technologies they use." Due to the short time of application in public community context, there

are new problems and difficulties in the application of participatory design from computer

technology to the public issues (Dalsgaard, 2012). The participation with computer system is

a kind of human-computer interaction via software and platforms, while, the participation

among community development, social condition and human-beings are more complex than

with computer due to its diversity and uncertainty.

███ Community

Community is a common but vague concept often used in social science and daily life. It has a rich meaning and also embodies vivid emotions. The etymology of community is *comnis* in Latin, meaning common things and close partnerships. It shares the same origin with communication and therefore has the connotation of making it popular with the public.

According to Tonnies, a German philosopher who initially put forward the concept of community, it refers to the social relations and common social interests that exist in the pre-industrial society, have a common value orientation, are composed of homogeneous populations, are closely related to each other, help each other, and are full of human kindness. It is considered to be a form of human common life that is naturally formed and determined by essential consciousness. Different from community, society is a purposeful and mechanical form of life determined by the will to choose (Tonnies & Loomis,1955).

Tonnies predicted that community would surely disappear with the development of society. The community defined by him is indeed decreasing rapidly, but the word "community" is not due to its connotation has changed. The urban community we talk about today is no longer an ideal "community" originally defined by Tonnies based on classical typology, but a social unit based on a certain region and value identity between the two, that is, an intermediate

state in the continuum defined by Tonnies (Zhao, 2013). This intermediate state circumvents

the binary opposition of "Nature or mechanics", and also offers more possibilities for us to

position community development.

The concept of community was introduced into China by Professor Wu Wenzao, who was

then the director of sociology department, Peking University in 1930s. At that time, it was

proposed that China's national conditions should be studied by investigating the situation of

villages and cities in various regions of China, so as to improve China's social structure. This

is the so-called "community study" -- For the research of China's national conditions, "we

separately conducted community study of different regions via perspectives and methods of

different regions and cultures". After 1949, Wu Wenzao exiled to Yunnan for political reasons,

and his idea of sinicization of sociology and community studies became stalled. After China's

reform and opening up, an upsurge of localized community research came together with the

social transformation. This stage is mainly characterized by the study of small towns. With

urban renewal, more and more studies have been focusing on urban communities.

Fei Xiaotong, who is the student of professor Wu Wenzao, mentioned the origin of the

Chinese word "community (社區 in Chinese)" in his article *Research on Chinese Communities*

of the Past Twenty Years. As he said, when the word 'community' was first introduced to China, it was translated into "地方社會" instead of "社區". He memorized that , when they tried to translate "community" and "society" into Chinese, the contradiction just came up. According to Tonnies (1955), community and society are two different concepts. Therefore, Fei and his fellows began to realize that the translated term of "local society" into Di Fang She Hui was inappropriate.. Occasionally, the word "She Qu " jumped out of Fei's mind. Then everyone began to use it gradually. This is how the Chinese word "社區" rather than "地方社會" came into being.

This translation vividly pointed out two elements of the community: "社" means social group, while "區" means the region. Fei, Hamilton & Wang (1992) believes that community is a group of mutual aid and cooperation formed by people based on geographical relationship. Meanwhile, both region and community are emphasized, therefore this term has been widely recognized by the academic world. For example, according the An Introduction to Sociology, community refers to a group of people living in a certain regional space, including three elements: a specific geographical space, a group of people living in it, and various social activities; The community is a group of people living in a specific area or the area where these

people live, and a group of people or countries with common economic interests or common

cultural traditions, as well as their sharing, identifying or participation together; It includes a

group of "people" living in a limited "space" where they have all kinds of activities. At the

same time, people in the group should identify with the community by considering himself or

herself as "one of the members of the community" .

In China, "community" also has an administrative complexion, referring to the areas

where city street offices or residents committees work in. This definition weakens the

sociological significance of the community as a common subject and close partnership, in other

words, the fading of the community mentioned by many scholars. Fortunately, researchers and

doers are both actively studying and practicing for the recovery of the community nature of

local community.

Based on different classification methods, communities can be divided into *virtual* and

physical communities, *urban* and rural communities, *geographical* and *thematic* communities.

As Yamazaki points that, geographical communities refer   to the community group formed

by the geo-relationship due to that people live in the same area, while thematic communities

refer to those who are interested in the same theme, and then they move to a same place and

living together (Yamazaki, 2017). The thematic community is also known as *intentional community*, with the typical forms including ecological villages, shared housing, sustainable villages, etc.(Caroline, 2003).

▮▮▮▮ Community Building

As far as we know, the word "building (Yin-Zao 營造 in Chinese)" came from architecture, originally referring to the building or construction of ancient architectures which can be traced to the book (*Yin Zao Fa Shi* 營造法式) in Chinese published in Northern Song Dynasty. The book documents a plenty of the idea of construction drawing, the standardization of architectural drawing and drawing techniques of architectural patterns. Nowadays, we also use this vocabulary to describe the re-shaping of the built environment or abstract objectives such as atmosphere and human feelings.

In my thesis, community building means that the residents living in the same geographical area continuously deal with the issues of community life by collective actions, and meanwhile create common living well-beings, therefore gradually close social ties are established among residents as well as between residents and the community environment. Several feature can be concluding through analyzing the conceptions proposed by different scholars that is (1)

participation of all residents (2) review of local culture (3) friendship of mutual aid　(4) value

innovation & promotion of community resources.

The core theory of community building comes from the theory of governance, especially

the theory and practice of community self-organization, based on which community building

was formed. Self-organization is another mode of governance besides market and hierarchy.

Economists and managerialists call it network, while sociologists call it community. It is

emphasized to be the difference between community building and "community service" or

"community construction" that "community residents self-organize, self-govern, self-develop

and jointly solve common issues faced by the community" (Luo & Liang, 2017). It could be

considered as a kind of community building as long as self-organization model is used for

community development in terms of space planning, community culture, social work, property

management, industrial application, big data and so on (Luo & Liang, 2017). This perspective

also inspires us on how to integrate dispersive and spontaneous creativity from the public into

a stronger force for social innovation via participatory design.

Because of the ambiguity of the community and the creation of the two vocabulary itself

and the fact that community building itself is the result of translational vocabulary, it is difficult

to define a definitive definition for it. But the emphasis from the various disciplines mentioned above can point to the three core characteristics that community building needs to meet (Figure 1.8).

Feature 1: Locality

It is generally believed that community building covers five aspects of "people, culture, geography, industry, and landscape" (Tseng, 2007). "People" refers to the satisfaction of the common needs of community residents, the management of interpersonal relationships and the creation of life and well-being; "culture" refers to the continuation of the common historical culture of the community, the experience of literary activities and lifelong learning; "geography" refers to the maintenance and development of the geographical features of the community and the emphasis on the local characteristics; "production" refers to the creation and marketing of local products and the collective promotion of local economic activities; "landscape" refers to the community landscape and living environment. These five aspects need to be closely integrated with the needs, characteristics and resources of the local community to achieve the purpose of creating public value for the local community.

Feature 2: Self-organized

One of the main theoretical basis of community building is about community self-organization theory. Luo (2010) emphasized that the common problem faced by community residents in self-organization, self-governance, self-development and joint solution is that community creates a place that is different from "community service" and "community construction". As long as it is a self-organizing model that acts on community development, whether it is spatial planning, community culture, social work, property management, industrial application, big data, etc., it can be said that it is a kind of community creation (Luo, 2010). Therefore, the government and third-party organizations can support and assist as external resources at the beginning of community construction, but ultimately they need to cultivate the ability of the community to self-hematopoietic, and achieve sustainable development of the community through the formation of various self-organizations.

In actual development, many constructions under the name of "construction" often become "objects to be created". More foreign funds, personnel and organizations are input into them, and gradually occupy the initiative and the main position, making the local " In order to "create" the effect, the "indigenous people" are moving away from the center of "building" and going to the edge. In the final analysis, community building is for the construction of

"community residents", not for the construction of "community", and only community

residents know their own problems and interests (Huang & Wen, 2013). Therefore, self-

organization is one of the important characteristics that community creation cannot be

separated.

Feature 3: Sustainability

If the above two points of locality and self-organization are not realized, then the

sustainability of community also has problems. The work of community builders has often

been criticized for the occasional intervention and the passing of forms. A short-term

community interaction cannot be considered to have achieved the effect of community building.

Successful community building must meet a certain duration, self-organized number of growth

or internal self-government.

Community building is of great significance in the current stage of urban community

development in China. It can not only improve the social relationship between people, create

positive social interactions, but also one of the key ways to cultivate the subjectivity of

community members and realize the citizen community. At present, the quality of community

building needs to be improved especially to realize the feature of locality, self-organization and

sustainability.

Figure 1.8 Three key features of "community building" (by author)

1.3   Research Questions

The application of participatory design in community building has become a consensus,

and its tools, methods and procedures also have a set of patterns. In my opinion, this "granted"

application needs to be reconsidered, and it is necessary for us to re-examine the practical

significance of this design method for community building, so as to have a more thorough

understanding on how to conduct participation design. It is also necessary to re-discuss the

diversified application of participatory design in different communities so as to ensure the

effectiveness of the method. From a microscopic view, this study will pay more attention to

how the participatory design process works and has influence on urban community building, and to how the dynamic process of design have impact on communities while how communities react to the design method, i.e., what kind of chemical reaction exists between communities and design methods.

Based on the above mentioned, this study hopes to explore the interrelationship between participatory design and community towards better community building. There are two research questions as below:

Research question One: What is the interrelationship between participatory design and community?

Research question Two: How to adapt the participatory design in response to the context of communities in Mainland China?

1.4   Research Framework
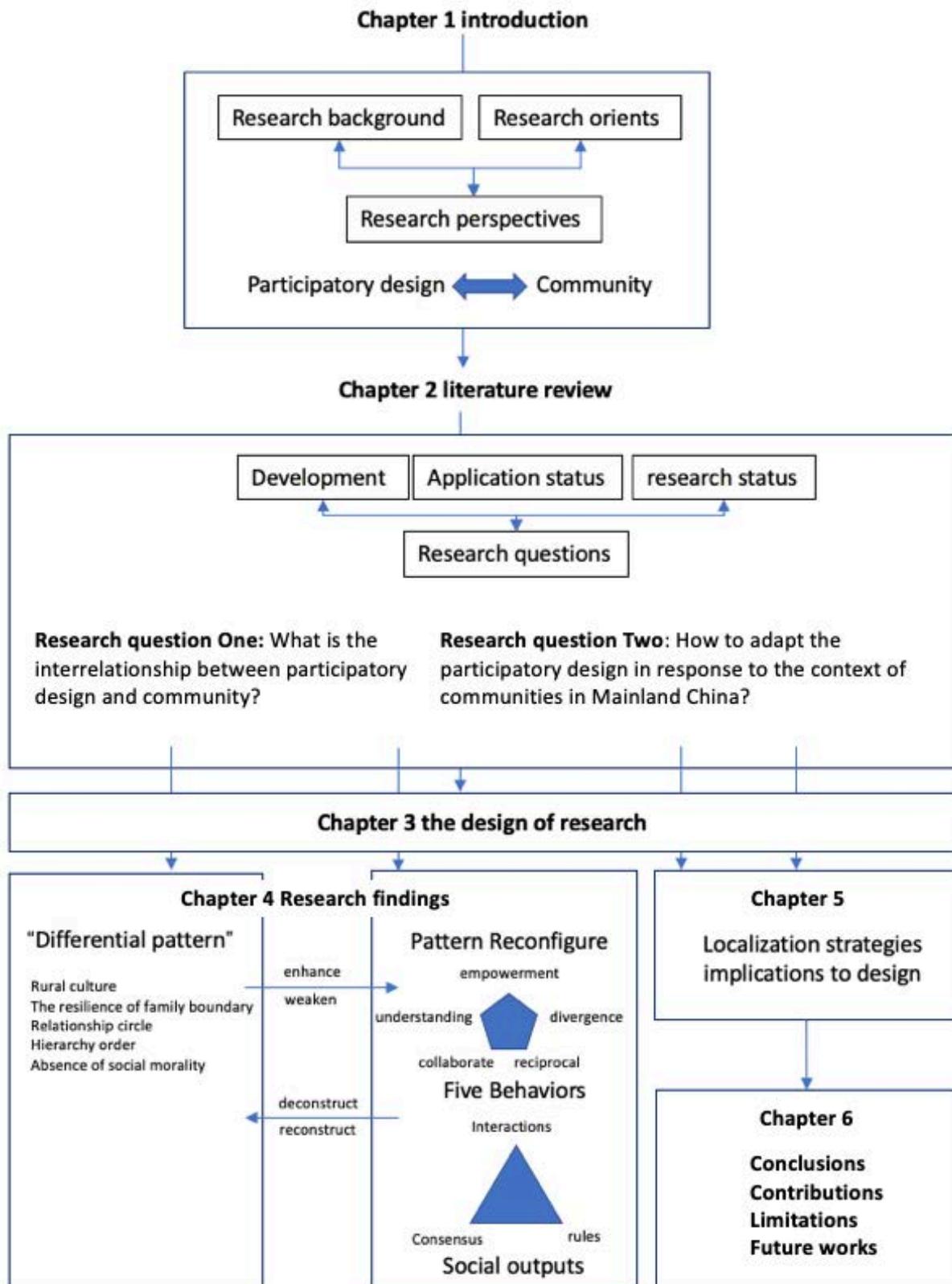
Figure 1.9 Research framework (illustrated by author)

1.5   Research Purpose and Significance

█████ Research Purpose

The author hopes that through the intervention of design methods, we can propose

practical strategies for how to stimulate citizen participation and awaken citizen consciousness

in an area with weak civic consciousness. This is also the social value of design.

At present, a wave of community design is emerging throughout the country, and cities

have held community meetings and implemented classification practices. The concept of

community creation has never been so changed. It is seen in reports and distributions, and there

are experiences and doubts. The research of the thesis brings a little design promotion and

academic reflection to the emerging community creation practice, and creates relevant social

organizations for community designers, creative people who recognize the community,

community self-government workers, and promotes innovation and autonomous government

offices. The practice of personnel provides more possibilities for the expansion and discussion

of ideas, and also lays an academic foundation for future community design work.

█████ Research Significance

First, participatory design is mostly used in information technology development, product

design and teaching design, and there are few discussions in the field of community building.

The author examines participatory design in community building, expanding and broadening the social and human value orientation of this design approach;

Second, from a research perspective, the author pays attention to the mutual relationship between participatory design and community, which fills up the blank of mere a single perspective, which has innovative academic significance;

Third, social innovation design has not been fully explored yet in the design field, and its tools and methods have not been fully explored. Social innovation design itself carries the gene of joint participation, participatory design is one of the core approach for social innovation design. This research on participatory design under the community context will also contribute to social innovation design;

Fourth, in terms of application, practice-based cases has the values in promoting the local communities. As a new stage in the development of community governance, community building can not only reduce the cost of community management, but also realize the sustainable development of the community and the achievements of community governance with self-hematopoietic function. The community carries the public life of the members of the society and is an important practice field for the cultivation of civil society. A series of

participatory design practices conducted and recorded by the author is an exploration of this

emerging field. Related experiences have already been summed up as texts and cases to be

shared and spread, and the academic research process of this thesis brings more rigorous

thinking, which can provide inspirations and references for the design practice of community

development.

Chapter 2: Literature review

2.1　Preamble

In last chapter, based on the reflection of the workshop experiences, I clarified the research perspective to be developed in this thesis, that is, the interplay between participatory design method and the community. In this chapter, the author reviews the current state of research through literature review to identify specific research questions.

The main sources of literature search are China Knowledge Network CNKI, Google Scholar Google Scholar, Web of science, Participatory Design Conference Proceedings and Academic Journal CoDesign (International Journal of CoCreation in Design and the Arts), Design Studies, and International journal of design, She ji (the journal of design, economics, and innovation). The resources of Literature also include monographs related to participatory community building.

In the literature review, two parts are patricianly focused :

1. Academic journal articles about "participatory design" in order to understand the origins of participatory design and how it gradually apply to community design;

2. Academic journal articles about "participatory design" in "community building". The purpose is to clarify the application status of participatory design, including what is true participatory design, its process, related tools and types, then to clarify the existing research perspectives of the relationship between participatory design approach and community context.

Among the above two parts of literature, the number of journal articles related to participatory design is enormous for reading. This part of the literature is not directly related to the research questions which only provide basic background. Therefore, the author adopts a skimming and scanning reading method. The author pays more attention to the academic articles which consider participatory design approach in community situation and read them in depth.

2.2 The Development of Participatory Design

2.2.1 The Origination of Participatory Design in Scandinavia

The origins of participatory design are recognized as dating back to the workplace in Scandinavia in the 1970s. The computer application in Scandinavia was such a scene (Sundblad,2011)：

The host of the computer center controls the application of technology. The technicians wearing white work gowns guard the host, carry out text input and output, and carry out primary communication between the software.

Researchers have realized that the ability to use a computer depends on the user's understanding of the application. The software designer needs to have an insight into the user's goals and tasks, and invites the user to join the design process as an active participant, inviting the user to the software reasonably. Sexuality and ease of use provide feedback to optimize the system. Participation is a low-cost remedy for low productivity, high absenteeism, low quality and workplace conflicts. Introducing participatory design can lead qualified and literate employees to make their own decisions.

As a result, researchers began experimenting with introducing users into the computer software development process to understand how participatory design processes can engage users in IT system development through the involvement of people affected by design techniques. Kristen Nygarrd from Oslo is the originator of user engagement in the computer field. Because of his outstanding contributions, he also won the 36th Turing Award in 2001. He worked with the Nordic Union of Trade Unions to get computers from traditional

development models to working with people, which led to a more active involvement of local

trade unions and completed a number of pioneering projects such as the Iron and Metal

Workers Union and Utopia. These projects followed a general principle that the design of the

system should respect the capabilities and skills of the user, and the user must work closely

with the designer to participate in the activities of the design system. They used low-tech

participatory design methods to enable people in various professional work, including building

simple usage scenarios, simulating workflows, developing A4 paper-sized flat work sites, and

so on (Figure 2.1).
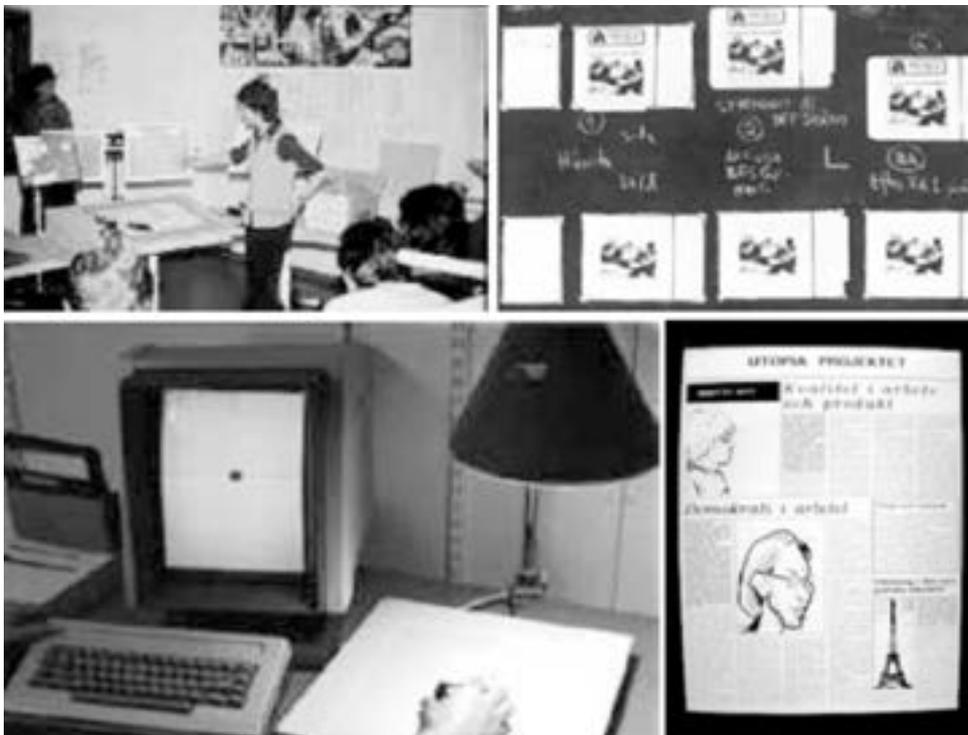
Figure 2.1 Utopia project (Sundblad,2011)

Very soon, the influence of Kristen Nygarrd has spread to the community in other regions such as Denmark, Norway and Sweden. The Design Research Society conference was held in Manchester, England in 1971. The theme of the conference was "design participation"(Cross, 1972), marking the beginning of the design research field in the field of computer-based participatory design. attention. In the early 1990s, participatory design began to be introduced into North America, as reflected in the article "From Human Factors to Human Action" which emphasized human initiative (Bannon & Ehn, 2012). In 1990, the first Participatory Design Conference was held in Seattle, USA. The conference invited Scandinavian participatory design pioneers to share their past 20 years of experiences in applying participatory design methods to computer system design. During the conference, scholars from Northern Europe and North America discussed how participatory design enables technology stakeholders to participate in a common design process. It is held every two years till now which means that "participatory design" has become an important research topic in the fields of informatics and design.

The author summarizes the key words of the research themes in "Participatory Design Conference" over the years, and found out that the research focus of the Scandinavian-style participatory design tradition mainly in the following two aspects:

First, influenced by the early stage of participatory design with its democratic culture, the researches more focus on two aspects of "politics" and "organization" for the improvement of disadvantaged regions and marginalized groups such as women, children and the disabled. Participatory design has seen as an aid to the realization of a democratic society;

Second, participatory design is considered to be a "social technology system tool" for communication between designers and vulnerable groups. Therefore, it is also more widely used in the field of community information systems. After several years of development, it has gradually begun to introduce participatory methods that extend to various other fields, including communications, Computer Supported Cooperative Work (CSCW), healthcare, new media, and architectural art.

The transformation of the labor movement and workplace that began in Scandinavia in Northern Europe was a democratized political movement. Participant design originated in it, meeting the growing need for collaboration between researchers, labor unions and workers.

With the development of cheaper, smaller, and more closely connected information technologies, participatory design can be better embedded into community contexts (Dalsgaard, 2010) and participatory design serving community development is increasingly researched.

However, there are large differences between the work place and the community. Social relations in the community are more complex than the stable structured organizational relationships in the work place (Dalsgaard & Eriksson, 2013). This brings the challenges and difficulties of participatory design from the factory to the community field, including how to implement participatory design in large public spaces (Dalsgaard, 2010), how to solve the knowledge between designers and community members, how to reach on local cultural agreements (Sabiescu, 2013), how to deal with conflicts between designers and local cognitive frameworks and so on. In addition, the expansion of the participatory design application field has raised the concern of scholars for the essential core of the loss of "power" protection for participatory design.

As Merritt, Samantha, and Stolterman (2012) argued, when participatory design evolves into a broader design approach that is used in other areas, it also loses its ideological philosophical roots to some extent, namely the focus on "power". The participatory design field

has shifted from focusing on the power balance in design practice to focusing on design methods and how to motivate participation. However, even with newer methods and increased participation, there is no guarantee that the core essence of participatory design "power balance" is protected. Therefore, the expansion of application areas is both an opportunity and a challenge for participatory design.

2.2.2 The Development of Participatory Design in Community

Beginning in the 1970s, the trend of participatory design emerged simultaneously in the United Kingdom, Japan, and Taiwan China. Different from the participatory design tradition in Scandinavia, the major practice application in these regions is community architecture and planning based on the realization that citizens must be involved in community planning to build a more democratic public environment.

In December 1977, urban planning scholars gathered in Peru to propose new requirements and declarations for the future principles of planning and design. Based on the Athens Charter issued in 1933, they have signed the Charter of Machu Picchu. The Charter claimed that urban planning must be based on a continuous system of collaboration between professional designers, urban dwellers, public and political leaders. Urban planning and protection are not

just the duty of public department but every individuals. Users shall participate in the entire

process of design, being a part of the overall architect work.

In 1977, the famous British architect Christopher Alexander who works in the center for

environmental structures at the University of California, Berkeley, created a common design

vocabulary and grammar diagram (Alexander, 1979).

In 1987, British architect and critic Nick Wates published the book named *Community

Architecture: How People are Creating Their Own Environment* which chronicled the

emerging community building movement pioneered by Prince Charles of England in the 20th

century. The conceptual framework of the community building movement basically relies on

the principle that the building environment is most effective when people living in local areas

actively participate in their creation and daily management.

In 1989, American architect King Stanley published a book named *Co-Design: A Process

of Design Participation*. In this book, he pointed out that image visualization can effectively

promote communication between designers and users, based on the exploration that the most

important part of participatory design is user's personal experience and intuition. This principle

has been implemented in a series of techniques for interviewing and workshops with users,

such as the public participation of The Vancouver Robson Square and the False creek intention

survey.

In the early 1960s, the rapid development of Japanese economy led to a series of social

problems such as the destruction of the natural environment, and the civic movements related

to environmental protection, cultural rejuvenation, and disaster prevention has occurred

continuedly. Under this context, various community-building activities were born as a kind of

civic movement. The community building in Japan mainly focused on the improvement of

environmental quality and the creation of common culture.

In Taiwan China, the overall community building has drawn a lot of experience from

Japan. In the 1990s, Chen Qinan, who is the deputy director of Taiwan Cultural Construction

Committee, proposed the concept of "comprehensive community building" with the aim of

launching a "social movement to restore the island of beauty". The mode is in order to getting

rid of top-down administration and promote grassroots local development which emphasizes

the participation with citizen autonomy. Chen believes that the mass culture is no longer limited

to the exquisite aspects of the concert halls and theaters but ordinary and diverse life. And Xia

(2015) believes that the key to community building in Taiwan is how to construct the

community's subjectivity in the process of community mobilization and community training.

He claims that when the legitimacy of government-level governance is not in place, the process

of participatory planning and design can provide the opportunity of community participation

and the political space of mediation. The typical case is the "Shellless Nnail Movement"

(無殼蝸牛運動) in 1989 which showed the power of the professional involvement in

community building. A group of architects, urban planners, space designers with socially

caring established an organization OURS (The Organization of Urban Re-s).

Community involvement in Hong Kong is based on the specific practice of grassroots

democracy in the local community, and it is based on the cultural conservation and

reconstruction of community neighborhoods. For example, the redevelopment of Lidong Street

(利東街) in Wanchai (灣仔), Hong Kong in 2003 produced the first bottom-up, residential-

designed building plan in Hong Kong's history. Through the cooperation of planning and

design, the scheme proposes a method of segmentation reconstruction of the historical block

of Lidong Street instead of the complete dismantling of the government's hope. Although this

program was not approved in the end, the relevant civil resistance ended in failure, but it left a

positive focus on the reconstruction of other communities by the action focus group in the role

of a semi-professional civil society organization.

Community building in Korean was born in 1990s. It experienced the burgeoning stage

of residents' self-improvement for their living environment from 1990 to 1994, then the

prevalence of residents' leading environmental reform movement from 1995 to 1999 and local

group autonomy from 2000 to the present. At present, the depression of the real estate market

and the drawbacks of the large-scale opening of the city are accelerating, which further

encourages the Korean government to apply community building to improve and repair the

lack of government-led urban planning. Park Yong-soo, the Mayor of Seoul, South Korea,

launched the "Seoul Community Promotion Project" for the public wellbeing and the quality

of public life for the citizens. Participants including the residents, community organizations,

civic groups, or administrative institutions, as long as more than three people, they can apply

funding and get support to participation in the transformation of the public environment.

In Singapore, community building combines the livability of the real estate and tries to

introduce participatory design concepts into high-rise residential building. They made the

designers to build systems and allowed residents to implement details in high-rise residential buildings to create communicate and interact public places.

In 1998, the Berkeley School of California organized the "Pacific Participatory Community Design Alliance" to promote community design in the Pacific Rim through academic discussions and community project collaboration.

Community planning and architecture development in mainland China that is consistent with participatory design and community building concepts is relatively late. Political participation dominated by voting and cultural performance is still the main content of community participation. As Lou & Ma (2018) critiqued that China's urban communities are still seems as a function unit for living and leisure which are positioned at the end of the innovation and industry chain with the perspective of "service" rather than "activism".

In the new round of urban renewal, more and more design professionals, academic researchers, and official governments have gradually realized the importance of community planning and public participation awareness. The term "community building" is officially used both in academic and practical industries. For example, in 2009, the Southern City News hosted the 2nd China Architecture Thought Forum with the topic of "Community Building and Citizen

Participation" which was an early attempt to introduce citizen participation into the public. In 2014, the Experimental Base of the Xinyi Community Construction Research Center in the School of Social Sciences of Tsinghua University was established in Jiading, Shanghai, which demonstrated the cooperation of academic, government and enterprise in the field of community building. Chengdu city started community building in 2014 and invested 1.55 billion annually in 2018 encouraging community education, community environmental governance, volunteer services, community culture, community mutual assistance and community public space, etc.

Based on the above review of the development of participatory design, the author summarized the following points:

In the first, participatory design originated in Scandinavia's Nordic region. The original intention of researchers and users to participate in technology development is to promote the work and welfare of labor with the feature of democratic requirement;

Secondly, in the same period, participatory design spread into community and urban planning. The construction of participatory communities in different regions is different because of the different stages of development and political demands.

In the third, currently, community building in mainland China is under the jointed support of government guidance, private self-development, and social organization. Designers still play a leading role, the depth and breadth of the public as a "mass design" to participate in the design process is not enough. There is still a long way to go to realize the collaborative innovation in public sector.

2.3   The Application of Participatory Design in Community Building

2.3.1 A ladder of Participatory Design

There are different status and degrees of participation. The direct division is authentic participation and pseudo participation. Unless community residents have influence on public policies to some extent, it is pseudo participation. If planning and execution of a public policy by community residents is actually controlled by an external decision-making entity, community participation only exerts influence in form. When internal rules, operation modes, law and degrees of community participation are controlled by officials, it is considered a type of "pseudo participation". Authentic participation can intensify interpersonal relationships, cultivate residents' confidence, improve material conditions and reduce sense of alienation for

the disadvantages (Chiou, Hung & Chen, 2002). Besides, it also needs to reveal the direction

of social structure reforms, and the process of power redistribution.

Arnstein (1969) claims that participation is the redistribution of power. She encourages

those who are excluded by the political or economic system, to take part in the system once

again. Through participation, those without power can make decisions on information sharing,

targets and policy formulation, tax resource distribution and project operation, etc. The theory

of Arnstein mainly focuses on the political aspects, and ignores other possibilities

(Huybrechts,et al., 2014).

Arnstein developed the theory of the Ladder Of Citizen Participation. She concluded eight

levels of public participation, including (1) Citizen control (2) delegated power (3) partnership

(4)placation(5) consultation (6) information (7) therapy (8) Manipulation. Among them, citizen

control, delegated power, partnership belong to deep participation. Placation, consultation

and information belong to superficial participation. Therapy and manipulation are pseudo

participation (Figure 2.2). Manipulation and discipline should be avoided. In most cases, public

participation forms still include information, consultation and demonstration, such as

community reform hearing or scheme demonstration. Social organizations, such as street or

neighborhood committees, tend to control the members, forms process and results of

participation. These are all pseudo participation. Authentic participation should start with

cooperation, gradually transit to delegated power, and finally achieve citizen control.
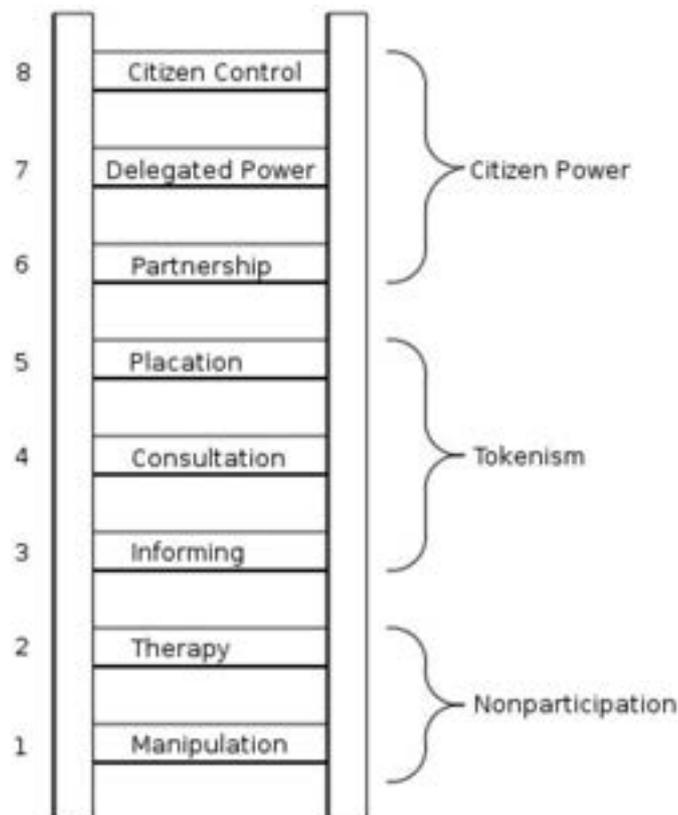
Figure 2.2 Ladder of participation(Arnstein, 1969)

The author borrowed this ladder for further analysis of participatory design. By

eliminating pseud participation and superficial participation, three patterns of authentic

participation are described as following:

(1) Participatory design as partnership

Designers and participation collaborate with each other by carrying out the design activities of jointed survey, design, implementation and maintenance. They make the best of different functions based on their own merits.

(2) Participatory design as delegated power

Non-professional designers can participate in the process, and apply some ideas in practice. The Quinta Monroy residential project designed by Chilean architect Alejandro Aravena in 2016 is a typical case of delivering design power to the general public. Limited by the funding, Alejandro Aravena designed a half of the houses for residents of the local slums, while the other half left the residents free to play according to their own ideas and funding (Figure 2.3). This co-design plan not only improved the living conditions of the residents, but also motivated them to work hard for preparing of future investment in the house.

Figure 2.3 The project of "half-house" (source: google image)

(3) Participatory design as citizen control

The result of a design is based on public opinion, and the non-design professional is operational. In this case, the designer no longer dominates a design task, but the role of the coordinator. For example, in the redevelopment of Lee Tung Street in Hong Kong, the residents spontaneously proposed the first bottom-up planning "dumbbell" scheme with the help of professionals. Although the scheme was not adopted at the end, the experience of Lee Tung Street became a valuable part of Hong Kong's citizen participation.

The ladder of participatory design guides my future field actions. I avoid having pseudo and superficial participation and promote the authentic participations as the three forms of partnership, delegated power and citizen control.

2.3.2 The Process of Participatory Design

There are two modes of participatory community design were compared by Shen, Kinoshita and Xu (2018), that is, PDCA mode and SPAR mode. PDCA mode is an easy-to-implement problem-solving mode proposed by Edwards Deming in the 1850s. PDCA consists of four main processes, namely "Plan-Do-Check-Act". Compared with the national conditions of Japan and other countries, most urban communities in China are still featured by large population and high mobility (especially in large and medium-sized cities), low awareness of participation of the residents, lack of motivation for the implementation of community design. Hence, in the process of community design, more attention should be paid to its complicated social environment and dynamic mechanism. Therefore, Shen and others put forward the SPAR mode (Search–Plan–Act–Retrospect) as shown in Figure 2.4.
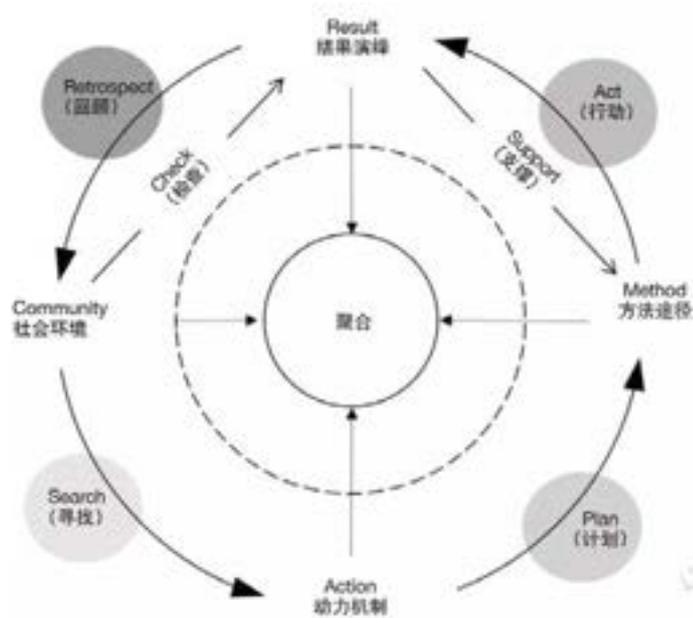
Figure 2.4 The framework of SPAR mode (source: Shen, Yang , Kinoshita & Xu, 2018)

S means search, visit and investigate in a complicated social environment, including discovering problems, establishing good communication relations with community staff and residence, discovering the original operation mechanism of the community and supporting the community; P means to plan community activities with the residents including brainstorming, round tables, activities, etc.; A means to act and deduce the results via discussing with the residents to find out applicable methods or ways; R means to retrospect, including two parts: (1) Designers need to review the whole process and results of the workshop, usually in the form of curating; (2) Feedback to the residents.

2.3.3 The Tools of Participatory Design

Participatory design approach is a design agenda including different tools concerning the

complex system of knowledge generation and joint design. This system includes interaction

between people, practice and knowledge. Besides, it finds the right direction in tacit knowledge

of participants, abstract, analytical and technical knowledge of designers and researchers

(Robertson & Simonsen, 2013). According to different paper, books and websites, I collected

20 types of different tools.

Borrowed the framework of participatory tools (Figure 2.5) developed by Sanders, Brandt

and Binder (2010), I have sort out different tools into three categories as Table 2.1. In the

framework, there are three types of human activities, which are "telling、making and enacting".

when we adopt the methods, we may think about the different experiences of the tools in order

to enhance the degree of diversity of participator's experiences.

Figure 2.5 Participatory design practice and framework(Sanders, Brandt and Binder, 2010)

Table 2.1 A List of Participatory design tools according to three types of human behaviors (by author)

Type	Tools	Description
Tell	oral history	Oral history is a way to gather history. This kind of historical data is derived from human memory. Historians, scholars, journalists, students, etc. visit witnesses who have personally lived in the historical scene, leaving written transcripts, audio recordings, video recordings, etc.
	brainstorm	Unrestricted free association and discussion, with the aim of generating new ideas or inspiring innovative ideas
	Open space	Open space is a form of democratic discussion meeting, a dynamic meeting mode discussed by participants.
	World coffee	It is a structured communication and communication process, which divides the crowd into several groups, and allows the individuals involved in the discussion to frequently change the discussion group and introduce the "team leader" of the new discussion group to other group members for exchange of ideas.

	Photo Voice	Organize actors to take photos of specific topics, conduct group discussions on photos, think about the causes and countermeasures, and promote individual and social changes.
	Life diary	Let the residents involved in the discussion write or draw out the activities they have done in the community for a period of time.
	Story	Draw a "segmentation" of future usage scenarios, and learn about the use of space or services through stories
	Social spatial map	Visually document each opinion collected, the activities of the base and community, and the appropriate environment
Make	Scene collage	Form an artistic effect by means of partial patchwork to express design ideas, future scenes or story logic
	High prototype	A prototype that is almost completely made according to the real thing, and is highly similar to the actual effect in the later stage.
	1:1 model	Using chalk, simple wood, rope, carton, etc., and the user to imagine the completion of the base and test it.
Act	Role play	Users exchange roles and let each person stand on the position of the role they play and feel the other's situation and express their opinions.
	Community theater	The community theater is an interactive way created by the community residents. Through the form of the theater, the residents exchange and interact in the "rehearsal, acting, and watching the drama" to establish a certain connection and enhance the interdependence among the residents. .
	Community walk	Professionals and residents work together on a community tour according to a schedule or a random route, in which the process re-visit the community and allow users to see the limits and potential of the environment.

These tools originate from human-oriented design, experience design and social work and

other specialties. When choosing different tools, how to match them and   develop the most

suitable participatory design method for a certain community scene is quite important. It is

necessary to consider group situations, such as occupation, age, region, gender and educational

background. For example, If users don't have adequate presentation skills or willingness, we

can encourage them to use photo-voice to collect their understanding about their own living

environment. If participants are in low age group, games, paintings and clay sculptures tend to

become more attractive. If users and designers keep a long-distance also both are skilled in

computer operation, online tool is commonly considered. In order to overcome barriers in

professional and cultural symbols of citizen participation, Sanoff (2000) developed a set of

graphic symbols to express the ways for people to have different activities, so that they choose

specific symbols according to various actions.

2.3.4 Four Quadrants of Participatory Community Design

The content of community building is with different goals and results. One type is to

develop " physical space" refers to space, community landscape, public facilities, etc. Another

type emphasizes the "non-physical space" related to management, operation, and culture

cultivation. The process of establish the physical environment often provides a carrier for the

shaping of "non-physical" culture. Based on the type of immediate-indirect contact between

participants, the author develop a four-quadrant of participatory community design to clarify

the focus of this research (Figure 2.6).
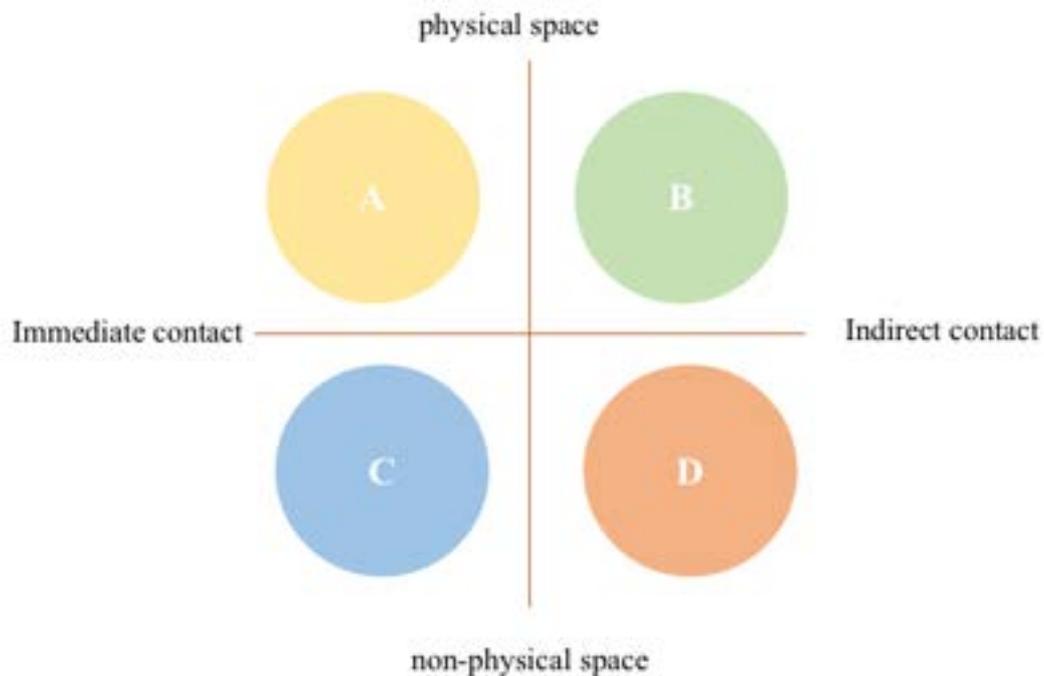
Figure 2.6   A four-quadrant of participatory community design types (illustrated by author)

Quadrant A: focus on physical space through immediate contact

Participants are directly involved in the community space development, such as

infrastructure and space construction. A typical case is that Xie Yingjun, an architect in Taiwan,

utilized the method of "open technology" for ordinary users to take part in house renovation

(Figure 2.7) In Taiwan, designers led community residents to conduct painting and wall

decoration. Through the process of "handwork", gather popularity of the community. In recent

years, handmade urbanism been advocated in this category (Rosa & Weiland, 2013). Different

stakeholders are involved in community status construction. Users and designers devote energy

and intelligence to enhancing community context and construction.

Figure 2.7 Cooperative construction system (source: baidu.map)

Quadrant B: focus on physical space through indirect contact

In this type, participants utilize online platforms as a tool for designing community

together. There are usually four functions realized through this kind of participation. The first

one is to discovery and mapping the community problems. For example, in Amsterdam, there

is a website http：//www.verbeterdebuurt.nl/ which connected to Google Maps. Citizens in

Amsterdam can upload issues and complaints about urban space whenever and wherever

possible. The website directly contacts municipal government and councilmen to notify them

of relevant issues. After the problems are solved, red flags become green as a sign of

encouragement. The second function is to design with designers. For example, in Japan, online virtual reality model language (VRML) was developed to help people engage in public environment design on the computer (Figure 2.8). The third function is to invite participants contribute personal capacities to the community and city. The case is a programme "Code for American", a platform that connected citizens and public services With thousands of people taking part in and solving community issues by open forces. Except for above three functions, people can even build their own house by using the online open-resources. The famous open resource building system Wiki-house is just one example. People used the graph paper to build independent conference rooms in the large interior space, an emergency shelters, a temporary dwellings, community factories , mini university in slums and other diverse types of buildings (Figure 2.9).
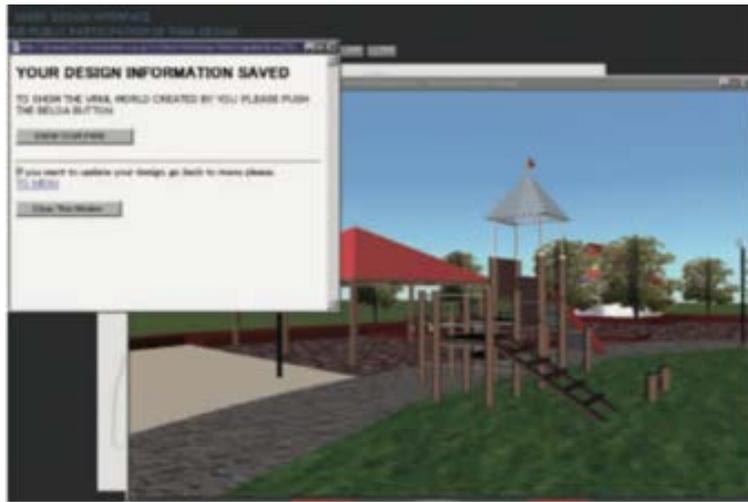
Figure 2.8 On-line participatory design platform (Lu & Shen, 2013)

Figure 2.9 Wiki-house (source: google)

Quadrant C: focus on non-physical community through immediate contact

In this section, participants are directly engaged in creating community culture, service

and lifestyle. Usually, community is given more features by focusing on common interest, such

as environmental protection, health, education, art and so on.

Yamazaki (2015) descript this type of community design is "design without designing".

He has run a successful case that is Ma Fuji Park in Japan. In 2001, with the invitation of his

friend, he developed a plan for the operation of Ma Fuji Park. He reflected that why in less than

ten years, a park will became a deserted place that nobody cares about. Yamazaki noticed that

these parks, no matter how hard they were designed, after the completion, the designers almost

no longer questioned, and the operators only care about the maintenance and management of

the park rather than the quality of operation. After comparing the model of the general park

with Disney Park, Yamazaki found that Disney Park has added an important role between the

operator and manager and the citizens, that is "actors". Actors in Disney park is an interesting

and indispensable connection between the guests and the park. This discovery made Yamazaki

realize that in addition to the physical design of the park space, it is also very important to

establish community group for daily operation. He gradually cultivated the community group

at the beginning of the space design and involved the surrounding communities in the park.

This resident-involved park management model has brought lasting vitality to the community.

In this circumstance, design itself has surpassed space material design, incorporating

community education and life-style , also inquires more sophisticated participatory design in system level.

Quadrant D : focus on non-physical community through indirect contact

In this quadrant, participants achieve community building in non-physical aspect. This type is mainly happened in virtual world, such as theme forums and WeChat group.

In above four types of participatory community building, the challenge of quadrant A is that "when the design task is completed, there is no more reason to bring people together", as mentioned by Yamazaki (2017). Hence, the community participation begins to decline and stagnate after design period. Then, maintenance and operation of the space may become new problems and burdens. Quadrants B and D are reliant on the internet. The author believes that indirect contact is not as true and really as immediate contact. Therefore, my research mainly focus on the type C in which community building brings different stakeholders joint together due to their common visions(Figure 2.10). This is also because in current era, the demanding of space construction has been declined, while the demanding for public services is

increasingly. Yamazaki Ryo regarded such design process as "design without design", which

is the third stage of community design[1].
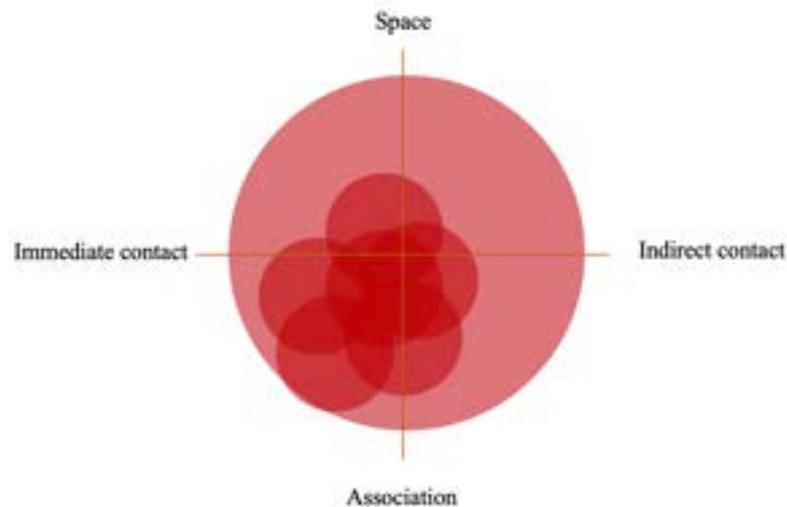
Figure 2.10 Focused type of participatory community building (by author)

2.4 Research Status of Participatory Design in Community

2.4.1 Academic Opinions

2.4.1.1 Participatory Design's Impact to Community

The effects that participation and participatory design brought to community has been

discussed by scholars. As Yang (2007) said that participation can bring the extinction and

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[1] Yamazaki (2017) proposed three stages. Community design 1.0 is based on hardware facility, which is put forward by the founder of Staatliche's Bauhaus named Pius. it focuses on the design of hardware. Community design 2.0 is conducted according to community, requiring community residents to take part in designing communal facilities, and enhance their awareness. The problem is when designing scheme is determined, there is no reason for more seminars. Community design 3.0 gathers people together to solve the difficult problems at hand, so as to conduct various activities and increase more companions.

formation of a certain community due to its attributes of publicity, process and reproduction.

Therefore, participation makes the community a dynamic state rather than static.

Halskov and Hansen (2015) summarized five fundamental aspects of participatory design,

which we may consider them in community content (Table 2.2).

Table 2.2 Five fundamental aspects of participatory design (Halskov & Hansen, 2015)

Politics	People who are affected by a decision should have an opportunity to influence it
People	People play critical roles in design by being experts in their own lives
Context	The use situation is the fundamental starting point for the design process
Methods	Method are means for users to gain influence in design processes
Product	The goal of participation is to design alternative, improving quality of life

Carl Disalvo, Andrew clement and others (2012) pointed out five aspects that

participatory design could act on community, which is to design with CBO (community - based

organizations), design with people with the same hobbies, design for community

communication, designed together to hatch creative ideas and foster cultural production,

broadening the scope of community building, and making the community participation become

a new content to be studied.

In Ji (2014)'s doctoral research, he believed that participatory could play a role of

integrating different capacity and resources. A transition from "people-centered" design to

"community-centered" design was proposed in Ji's doctoral research, while the key for actively integrating the design and social innovation of community and network-based (DS-CN) system lies in the building of "knowledge platform", "organizational design", and the " joint participation" of designers and local residents. The innovation of this design strategy is the proposed transition in design objects, design contents and methods of organizing design (Ji, 2012).

The significance of participatory design for community building is recognized by these discussions, providing the basis for this research. However, although he realized that "a participatory approach was adopted by the design team from the beginning of the design intervention to more accurately determine the region's demand for social innovation. Local knowledge was acquired from the perspective of a cultural holder, and the service objects were invited as participants and co-creators", only a brief introduction was made in the conclusion section without much explanation.

2.4.1.2 Community's Impact to Participatory Design

When participatory design is applied in the computer field, it mainly deals with the interaction of human-computer systems, achieving the purpose of users participating in optimizing the system through software.

In community context, there are two aspects of impacts from the community to participatory design. The first one is culture. When participatory design apply in the community, it deals with more complex interactions between people, social relationship and culture. As Zhang (2016) asked, "What is the most noteworthy in the overall complexity today? It should undoubtedly be the social factors. Social factors are one of the most influential things in design thinking and changes today." For designers, it is unable to provide solutions without considering complex social situations.

Community culture is diversity and complex. Some scholars have realized the differences of participatory design due to different community and culture. This is confirmed by Winschiers-Theophilus, Chivuno-Kuria, Kapuire, Bidwell and Blake (2010), who demonstrated that common participatory methods such as Future workshops and brainstorming, which are based on western communication structures, were incompatible with Namibian user group's socio-culture habits.

Merritt and Stolterman (2012) examined challenges identified with participatory design research in the developing world, the notion of culture hybridity challenges the static culture binary opposition between the self and the other, Western and non-Western, or the designer

and the user——offering a more nuance approach to understanding the malleable nature of culture. They have examined how participatory approaches and culture hybridity may interact in practice and conclude with a set of sensitizing insights and topics for further discussion in the participatory design community.

Manzini (2015) has asked the author in his book *Design, when everybody designs* if there is any connection between Italy culture and participatory design toward social innovation. He believed that there were a certain kind of connections, while he didn't provide detailed instructions.

Winschiers-Theophilus, Chivuno-Kuria, Kapuire, Bidwell and Blake (2010) also pointed out that participatory design approach need to account not only for diversity between individual people and groups but also culture variations and dynamics. They explored the concept of participatory design from a different viewpoint by drawing on an African philosophy of "humanness-Ubuntu". For example, in most Sub-Saharan rural community "participation" is a well-established value and directly incorporated in collaborative day to day activities. Thus the facilitation no longer needs to focus on jointing individuals but rather needs to focus on directing the interactions toward design.

The second impact factor is community components. Community is consist of population, space, time and other components. Su (2007) said the tensions of different community participants have influence to participation. No matter the tension or the background of community members, they are all related to individual factors. I believe there are a kind of group factor and culture which also have an impact on participation and participator design. Take Wang's (2018) question as example, he tried to ask the reason that in Taiwan, why communications in private always have better result, and he believed that it may related to the collective psychological characteristics of local population.

2.4.2 Academic Gaps

Based on a review of the current research of the relationship between participatory design and community, I propose the following gaps which is worthwhile for further research.

First, the mechanism of how participatory design works on the overall process of community building is not clear enough. Most scholars discuss community building from a relatively macro perspective of a country or region. At present, most of research conclusions have pointed out that designers in the field of architectural planning have entered the community and residents to engage in dialogue, communication and collaboration. Community

participation emerges as a necessary and ideal "result", while there are few studies related to

the process of participation, namely, how participatory design build up a community. We take

"participation" for granted, but "how to participate" lacks support and framework. Therefore,

the author hopes to explore more deeply how the participatory design approach works for the

community.

Further, some research issues after the ending of participatory design are not involved,

such as whether design participation plays a meaningful role in community building, whether

community awareness is established with participatory design, and what if residents are not

comfortable with the design process. Participatory design is important for the promotion of

community creation as a result, but for researchers, the practical process of reflection is more

obvious. How to conduct research through practice and obtain guidance for reflection and

further action will be considered in this research.

Secondly, there is less discussion about how the community reacts to participatory design.

Most of the domestic scholars have reviewed the typical cases of the advanced areas created

by the community, such as Japan and Taiwan, and lacked observation and reflection on the

local participatory communities in mainland China. There are currently individual cultures

(African regions), and the community context in mainland China has not yet been covered. The core of the community's creation in Japan and Taiwan lies in the politicization of life based on the creation of a sense of "community" which is based on the political and cultural life in Japan and Taiwan. It does not necessarily apply to the current comprehensive management of the Chinese mainland. The case and experience from other regions is worth learning, but it cannot be copied. The differences in cultural contexts at home and abroad require us to adapt the participatory design method adaptively, and the community design participation from the perspective of cultural and situational differences Research still lacks theoretical framework support.

Furthermore, at the outcome level, policy opinions are the mainstay, such as how to establish a citizen-oriented community participation system; how the community residents, professionals and city agencies interact, and how to combine the activities, methods and opinions of the three to promote community participation. The weakness of the policy is that its promotion requires a long time. Therefore, the public participation as an important basic principle of planning and design has not been widely promoted to the common design of the micro level of the community. The theory is applied to the actual situation. The effect is

relatively slow. The research of this thesis hopes to provide research results beyond the policy opinions, and can return to the starting point of "design" and "redesign" the participatory design method.

Finally, the author believes that if the study of the relationship between the two is only one of the two unidirectional perspectives. The limitation is that it is decentralized and fragmented, lacking integrity and relevance. It is necessary to find a variable element between participatory design and community to help us understand the dynamic relationship between the two.

2.5   Summary

In the first part, through literature review, the author summarizes how participatory design concept has enabled the democratic transformation of the workplace in Scandinavia to gradually expand the research application field into the community. A brief overview of its development in major countries has been discoursed.

In the second part, the author summarizes the application status of participatory design in the field of community building, including the ladder of participatory design , the process of

participatory design, the tools of participatory design and participatory design types. The result

of these four parts are as followings：

The study of the ladders points out the real-level participation level of cooperative,

empowered and citizen-controlled, helping design researchers and practitioners to identify

which participation behaviors in the community creation are true participation rather than false

and superficial participation; The selection of cases in the research phase provides the basis.

The literature on the process is summarized, pointing out the current main participatory

design process and the need for further exploration processes;

The combing of the tools not only provides the role of the toolkit, but also reveals the

need to combine and adjust the tools according to different participatory design scenarios;

The type of research points out that the focus of this study is on the type of participatory

design that is based on soft community relationships.

In the third part, the author summarizes the literature on "interaction between participatory

design and community". The author believes that, on the one hand, the mechanism of

participatory design in community building is still unclear. On the other hand, how the Chinese

community as a specific complex situation affects participatory design remains to be explored.

By clarifying these two points, we can have a deeper understanding of the relationship between

the two.

Chapter 3: Design of Research

3.1   Research Methodology

In generally, there are qualitative and quantitative research method with different epistemology. The degree of user empowerment in various research methods was summarized by Carr-Chellman and Savoy (2004), relatively speaking, qualitative research and practice research are more in line with the purport of participatory design.

Qualitative research is mainly adopted in this study focusing on the interactive relationship between participatory design and community building. Via detailed on-site recording of the community practice of participatory design, this research takes ethnography as the basic idea for qualitative research method, obtains data closer to the truth, tries to understand the design process of community participation and hopes to acquire new knowledge.

Multi-cases study: I participated six participatory cases and collect qualitative data from the cases for research analysis.

Fieldwork: The participatory design process of several typical communities in Shanghai were observed and described by the author to sketch out the view of multi-party participation

in community building, investigate the interactive relationship behind it, and have a description in depth by collecting multiple data.

Participatory observation: Observation is a survey method for researchers to collect non-verbal behavior data through sense organs or scientific observation instruments in a planned way to objectively and systematically observe social phenomena in a natural state. Observation is divided into non-participation observation and participation observation, and participation observation was mainly adopted in this thesis due to that the author and the users worked together during the design process.

Semi-structure interviews: (1) Interviews with scholars and experts in this research field to understand the system, problems and methods of community participation in different situations, as well as some research trends and challenges; (2) Interviews with stakeholders involved in a community's design project to understand their feelings.

3.2   The Selection of Location

The participatory design method is rooted in the democratic movement in the West. When it is used in China, it is inevitable that it will encounter the application dilemma brought about by cultural and institutional differences.

The localization of research design methods can be based on local communities and analyze their own conditions or conduct comparative research between different communities to find differences. The author believes that being based on the local community is a primary prerequisite. We need to recognize the situation in our community before we can continue to conduct the basis of comparative research between different communities. Based on this premise, the author hopes to select a particular region as the region for the "localization" of participatory design methods.

The author goes on to think about which particular area is suitable for the case of the research. Despite the mature experience and case studies in Japan and Taiwan, it is difficult for author to obtain participatory observations to obtain first-hand information. The author believes that the true observation and experience of the researcher can guarantee the credibility of the research results. Therefore, the text has been selected

In recent years, the author has started a participatory community-building area – Shanghai as a case-selection area. The author is able to conduct participatory observations all the time, with fewer language barriers, and can more clearly capture and understand the meaning behind "local jargon". The relatively familiar network also facilitates the author to organize various

design interventions. At the same time, as a first-tier city, Shanghai also has a certain degree of leadership in community building.

2.5.1 Chinese Mainland Context

The report of the 17th National Congress of the Communist Party of China (CPC) proposed to "establish and improve the social management structure of Party leadership, government responsibility, social coordination and public participation"; The Third Plenary Session of the 18th CPC Central Committee approved *The Decisions of the CPC Central Committee on Several Major Issues of Deepening Reform in an All-round Way*, in which the concept of "social management" was replaced by "social governance", reflecting the differences in governance subjects, mode and scope; The report of the 17th and 18th National Congress of CPC proposed that "the achievements of development should be shared by the people"; The Fifth Plenary Session of the 18th CPC Central Committee proposed to strengthen and innovate social governance and "build a social governance structure for all the people to co-build and share"; The 19th National Congress of CPC added the objectives of "Co-governance" and proposed to "build a social governance structure to co-build, co-govern and share", which advocates that the service and management of social members should not be

completely monopolized by the government, but should be involved by multiple social subjects in service and governance to achieve a dynamic balance between stability and vitality.`

From this course, we can clearly see that the social governance structure in our country has changed significantly. As a "small society", communities undertake the work for government, community organizations and citizens to jointly manage public affairs of their communities, with the same objective to co-build, co-govern and share as well as the essential requirement for citizen participation (Jiang & Heng, 2007). Under such a background, the second background of this study is how the design profession could participate in community public affairs more openly, realize its professional value and make contribution while outputting social value.

Considering all the above, the author has been thinking about how might we design with users towards a better urban public life. In order to narrow down the research scope, the author combined with practical experience and research status to further explore valuable research questions.

2.5.2 The Practices of Community Building in Shanghai

The conception of participatory design originates from western courtiers. Hence, they will encounter problems caused by cultural differences when they are applied in China. How to apply such design methods in Chinese cultural conditions is the emphasis of this thesis. This section will mainly discuss the participatory community building design in China, so as to lay the groundwork for subsequent research.

Shanghai Community Planning Seminar was conducted in 2015. It confirmed that central urban areas of Shanghai had been divided into different communities and units. 4079 neighbors were divided into 144 community units. The central urban regions included 85 street management units. The land area and population size of a sub-district are equivalent to one to two community units. Hence, as for management, community is an administrative concept, while social traits are ignored. In fact, 144 communities are 144 sub-district offices. Moreover, from the perspective of sociology, communities are not divided by numbers, and sizes are not quite large.

In China, community development comes into three stages which is community service, community development and community governance. The common feature is that they are promoted by the government. Therefore, the administrative features outweigh social features.

By contrast, community building has its own traits. In the first place, it is still regional experiment rather national policy. Now it is scattered social intervenes in Chengdu, Guangzhou and other few cities. Secondly, although government play a role of promotion , the essence of community building is bottom-up and spontaneous action. Thirdly, it owns many foreigner factors, concepts, ideas as well as experts.

Generally speaking, the orientation that conformed to "community building" developed relatively late in China, but it still gained strong momentum. In 2009, Southern Urban Daily held the 2nd Architectural Thought Forum with the theme "community building and civic participation". The journal of *Time Architecture* also published primary viewpoints related to the conference theme. After year 2010, the case of community buildings gradually increased. They were growing vigorously while the author was preparing for doctoral dissertation. In Shanghai, Wang Weiqiang at Tongji University initiated the public space reform for Caoyang new village, the first new village for workers; Liu Yuelai together with his group start a community plan named "2040 Food Forest" promoting participatory community garden with local people; College of Design and Innovation in Tongji University carried out an annually research and design project call "Open your space" to see how design can activate the old

district with local communities. The journal of *Urban China* published two relevant topics

including *micro community renewals* and *community designers - the communication and*

collaboration in multiple subjects. From all these community-driven experiments, the author

conclude that the characteristics of the current community building in China is with strong

external advocacy but insufficient internal growth motivation. These cases are mostly with the

purpose of scholars' experiments or the requirements of the government's political

achievements, lacking the initiated and continuously efforts from local community residents.

In other word, the external forces have not yet been transformed into intrinsic motivation. On

the more positive side, this is a necessary stage of community building from outside to inside.

2.5.3 Local Network of Stakeholders

The concept of stakeholder comes from the subject of economics and management. It is

related to shareholders, including operator, employee, user, supplier, creditor, competitor and

government, etc. As for economics and management, stakeholders witness the maximization

and transition of shareholders ' interests, as companies realize that stakeholders play important

roles in corporate operation and profits. In each project involved, these groups are stakeholders.

Hence, their operation logic pose significant influence on participation. As for participatory

projects, the core of relations with stakeholders lies in the design projects. If the interests of

designers or initiation teams and communities are blurry and uncertain (including interests of

various aspects), projects are likely to fail. Therefore, it is crucial to identify the stakes, balance

relationships between various parties, and set up harmonious ecosystems.

Based on the above five cases in Shanghai[2], I conclude eight types of stakeholders in

community building under Chinese culture and political context.

Sub-district offices

Sub-district offices mainly provide financial and policy support in community building.

Currently, community building is primarily driven by administration and scholars instead of

social doers in "real world"(Zheng,2012). As a result, many community design are hardly

sustainable.

Neighborhood committee

Neighborhood committee is the self-governing organization for residents to promote self-

government, self-education, self-service and self-supervision. It is the important foundation for

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[2] The selected cases are "open your space: design intervens in Siping area" (Ni & Zhu, 2017), Chuangzhi Farmland Community Garden, Qiuxia Community of Jiading Town Street, Xinyi Jiating Community, and Xinfeng Village, Lane 699. These cases meet three criteria (1) Shanghai case (2) involving space carrier (3) multiple participation.

people's democratic dictatorship and grass-roots political power in China. Besides, it is also the connection between the government and the citizen. At present, in the aspect of community building, community residents committees mainly organize leisure activities such as sports, recreation and so on. According to the data of an empirical investigation for a community in Wuhan, only 20% of interviewees seen it as "self-organization". Other people considered it as "government organization" or "connection between government and residents".

Voluntary associations are spontaneously formed by residents. Besides, various community services are also provided by them, such as women's home or old people's home. Specific groups of people conduct public activities through top-down administrative power. Because of administrative features, such communities tend to be exclusive for those who can't participate. When administrative power loses efficacy, organizations also become invalid. In other words, sustainability and operational capability are relatively weak. As for policies, according to suggestions on Promoting City Community Construction by Ministry of Civil Affairs, it emphasizes the path of democratic autonomy, including four aspects: democratic election, democratic decision-making, democratic management and democratic supervision.

Self-organizations of community groups

In Shanghai, typical community self-organizations include "aging group, reading group or mutual-help group. They care about issues like community environment, community equality, aging, peasant workers and their children. Self-organization is the non-negligible form of community development. This form of design activity is not related to planners or designers in the professional sense. Take "sweet home" as an example, in the research process, the author learned about a typical community self-organization "Sweet Home" in Quyang village (曲陽新村). It is an activity center organized by residents in No. 620 community in Quyang village (曲陽新村). They renovated interior buildings and rooms, and turned them into public spaces.

Owner committee

This civil organization consists of representatives within the region of property management. On behalf of owners' interests, it standards for the wills and requirements of relevant particles, and supervises the operation of property management company. The owner committee has the decision-making power over all important matters concerning properties. The owner committee often has community leaders who may also play important roles in community building.

Resident representatives

Residents are always the main part of community building, because they are the people who truly live in communities. In this case, the key factor is to seek for suitable interest. The subject of community building is users directly relating to "communities". Among the many stakeholders, government and external forces are the sources of capital and intelligence, "communities" need to focus on their own subjectivity and spirit, and encourage residents to take an active part in the process. Otherwise, community building will be trapped in complicated affairs and budgets losing the core values for the citizen participation (Lu,2015).

Real estate

The property company mainly cooperates with the construction in the engineering process and carries out maintenance in the following stage. A good property can bring better quality assurance to the community construction.

NGO

Third parties mainly provide different technical forces, including organization, design and support of community work. Relevant third parties primarily involve non-profit organizations, non-governmental organizations with non-profit purposes. They play roles in both services and

pioneers. In Shanghai, the website of social organizations released 1657 categories related to the third-party organizations, involving health, sports, volunteers, the elderly, community charity, community services, and the federations of social organizations. Large-scale social organizations play active roles, such as Wulixiang (屋裡厢) and En'pai (恩派). Small-scale social organizations take an active role as well, for example, Prof. Liu Yuelai at Tongji University who run the NGO called Siyecaotang (四葉草堂) which aims to cultivate community autonomy through community gardens and nature education.

Other public institutions

In addition to non-profit organizations, some design organizations and public space promotion centers also play important roles in the cause of community building.
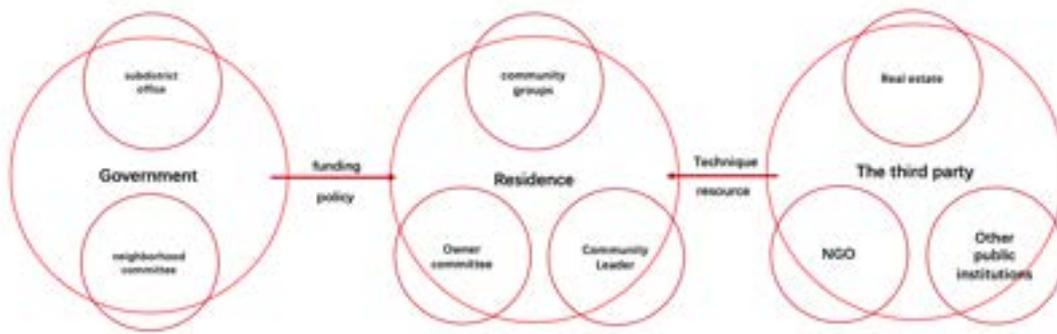
Figure 3.1 Primary stakeholders and roles of community building in mainland China (by author)

Different stakeholders make different contributions. In general, community residents are capable of knowledge and actions. Government provides policy support. Social organizations offer other relevant resources for residents. Some elements of participatory design aim to set up the framework of multiple cooperation. Participation and cooperation positively influence on communities. In order to seek for suitable positions, designers need to identify their own advantages and specialties during the process.

3.3 The Selection of Cases

From October 2015 to October 2017, during the two years, the author spent two years in conducting field actions. The organizations of participatory field is time-consuming. This is also the reason why the research takes such a long time.

The appendix B field notes described the details of the participatory community building happened in six communities with four themes in Shanghai. The four themes are sustainable community, neighborhood place-making, children participation and old community renewal. These actions were not only transient "workshops" which was my confusions described in the initial stage of the thesis. They gained a complete process from site research to implementation, also the cultivation of sense of community belonging and community association.

For conducting the research, I made thorough "depiction" on the primary scenes and crucial nodes happened in the field, recording the scenes, actions and dialogues without any assessment or interpretations. Depictions mainly focus on three aspects (1) participants' expressions during the participatory design process, including language, emotion and action (2) participants' reaction and assessment on other people (3) development status and results of each cases. The purposes of (1) and (2) aim to understand the interaction happened during the participatory design and (3) aim to compare the results with different communities. The field note includes texts, videos, interpretations, memorandums and pictures.

The research methods are mainly participatory observations and interviews. On such a

basis, I also conducted coding analysis according to the grounded theory. All surveys are

participatory, so as to ensure the validity of studies and research.

████ Case One: Sustainable Community

Youhe community (Y community in abbreviation) is located in Gonghexin community,

Jing'an District in Shanghai. It is a commercial residential building estate with only 13

buildings in total. In the northwest corner, there is a place interrupted the residents for a long

time, especially those from No.7 Building live nearby the construction pile (Figure 3.2). This

site incorporates construction waste and rubbish storage room. Due to the lack of regional

planning and management system, the environmental quality is quite low, thereby perplexing

the residents and neighborhood committee of this commercial residential building estate.

Secretary of the neighborhood committee said that she often got complaints from residents.

They contended that failed to perform duties. Such a tiny space induced conflicts between

residents and property management, and caused a lot of troubles to the neighborhood

committee as well. Hence, with the advocacy of environmental protection NGO, the

community hopes to add an exclusive and refined space for waste and rubbish.

Figure 3.2 The site of construction building   (photo by author)

The author participated in the entire design process. She worked with community residents in project design, environmental protection organization development, discuss the function of participatory design in community space reform, as well as the influence of this process on community participation. The preliminary designing scheme was formulated by neighborhood committee secretary, environmental protection NGO and designers which providing preliminary schemes as primary materials for further discussion.

The first discussion was held on July 14th 2016. Participants included the staff, temporary cadres, representatives of residents, owners' committee and property management. The theme was to discuss the design concept and draft. Then residents proposed detailed ideas about the design, such as enlarging the door width, shielding building waste, adding roof gardening, collecting building wastes with surrounding estates. The workshop also played the role of

project approval, which is one of the main conditions for community projects to gain support.

In this workshop, environmental protection NGO guided the residents using the order of

Robert's Rules. (Figure 3.3)
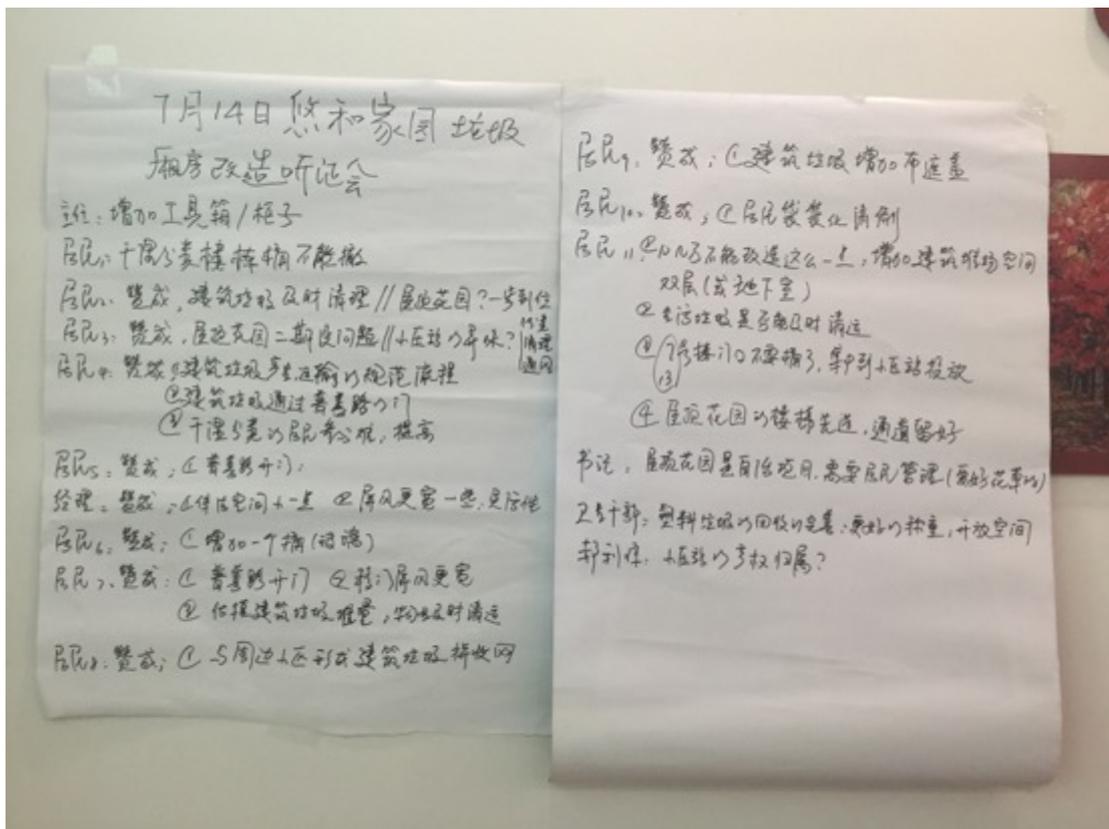
Figure 3.3 Residents' opinions about design plan (photo by author)

On October 12th, directors of street autonomy office, members of neighborhood

committee, cleaners, directors and members of owners' committee, representatives of flower

club, social workers of environmental protection organizations and designers gathered together

and discussed relevant design schemes again. The previous scheme met requirements of project

approvals, but it was not well considered yet. In this discussion, they hope to formulate more

explicit ideas. The workshop conducted three open discussions. The first round of discussion focused on "what I expect to do in this space". It encouraged residents to express their ideas such as building wastes, roof gardens, rubbish classification, publicity and pet stations. Then five discussion groups were divided to carry out the second round of open discussion focused on "what contribution can I make".

The third participatory design workshop about building waste was conducted on October 13th. Property managers, cleaners, directors of urban neighborhood committee, owners committee, resident representatives (who become project supervisors afterwards), social workers of environmental protection organization, designers and researchers attended the workshop. It lasted two hours and focused on issues like building waste, solutions and reformation designs of new space. After the discussion, a new system was set up for the reference of all residents, i.e. "For five tons of wastes or every period of two weeks, property management should assign sanitation companies to clean it away", so as to keep the site clean (Figure 3.4). Property managers, cleaners, directors of urban neighborhood committee, owners committee, resident representatives(project supervisors), social workers of environmental protection organization, designers and researchers.

During the process of discussion, designers proposed suggestions for revision based on the first draft. Participants were generally satisfied with this version of scheme. But forklift was still needed to demonstrate the actual operation and one resident Li became the volunteer to take part in this job.

Figure 3.4 Service design tool— flow chart (photo by author)

The fourth workshop mainly concerned the self-governance system. Property managers, directors of urban neighborhood committee, owners committee, resident representatives, social workers of environmental protection organization, designers and researchers took part in. They decided to set up the management team of "one director and two deputy directors". Different teams, management requirements and activity proposals were formulated for various estates

(Figure 3.5). For example, members from the flower club planted vegetables, learnt about

organic farming and earthworm composting.

Figure 3.5 Participants wrote down the rules (photo by author)

Figure 3.6 The opening day (photo by author)

On the opening day, different space games have been adopted to help people understand

the function of each place (Figure 3.6).

██ Case Two: Neighborhood Place-making (1)

In 2016, various Shanghai communities conducted community design projects on the theme of "beautiful corridor." The target is to improve the public environment in building corridors to enhance the culture of community self-governance and improve public relations among neighbors. Siping community, where the College of design and Innovation is located, also set the goal of creating warm and unique corridor culture. It aimed to introduce resources from the third party, i.e., teachers and students' participation in the College of Design and Innovation at Tongji University. There were eight corridors as samples in the community. Among them, No.363 Lane community on Fushun Road was rated as a "harmonious street." The warm and sweet design and implementation have a favorable community basis.

In Siping area, there are old buildings more than 20 years of age. The corridors in this building are the mini public space, which could be reused and activated. The passage consists of the entrance lobby and passageway. It connects each neighborhood. Corridor design not only incorporates the environment and planar elements into public space. Moreover, it also enhances space quality (functionality, interactivity, interest, and participation to start the socialization process of resident involvement and community involvement.

This case of community building was conducted in the form of course practice. The author also took part as the teaching assistant. The whole process lasted for nearly two months and contacted communities for more than twice a week. Students also participate in the joint design through open workshops with other residents (Figure 3.7). On the other hand, the corridors have their own ways and skills. For example, students in the pomegranate building invited residents to make food plates as symbols for the halls.

"New designs of neighborhood" exhibition was conducted in the College of Design and Innovation at Tongji University. Artworks of eight students were displayed, including neighborhood, cat butler, collection, corridor, warm fall, vegetable garden, and pomegranate. The scheme of the hall won the award of design in the US.

Figure 3.7 Participatory design with residences (photo by author)

Case Three: Neighborhood Place-making (2)

In this case of neighborhood place-making, we cooperated with teenagers and organized the "Little corridor steward" activity. We offered training on design thinking to enable kids to participate in the design process (Figure 3.8). In the workshop, children proposed many creative ideas and made the prototypes to visualize their ideas. The activities also got a lot of support from the parents.

Figure 3.8 Design training workshop (photo by author)

Case Four: Public Living Room

There are 96 households in the community of No. 89 Lane, Chifeng Road. Since 1997 to 2014, the owners committee was not established and there are many problems such as bad lighting. Hence, the owners proposed the idea of setting up the owners committee to scope with the community problems. At the end of 2014, the owners committee was set up. After that, many public affairs such as elevator updating, car problems, lighting issues have all been improved. A new ping-pong table also added and connect the residents. There was still an empty space in the entrance with great potential so that we are invited as designers to work with the local people.

On September 29th 2017, we gathered the community members and set up the

participatory space design workshop. In this workshop, residents were quite active and had an

energetic discussion. They proposed that the space should be multi-functional and considered

the needs of different users (Figure 3.9) .After the design implement was finished, the

community themselves organized many other activities such as singing, learning, playing chess

and reading (Figure 3.10).

Figure 3.9 design workshop (photo by author)

Figure 3.10 Daily use of the public living room (photo by author)

Case Five: Children Participation

Yidun (Y in abbreviation) apartment is located in the southwest corner of Siping Road and Chifeng Road in Yangpu District, Shanghai. It is a commercial-residential building estate completed in 2003 which covers an area of 3100m². There are 64 households in total and most of them moved in 2004.

Y apartment only has owners' committee without property management, so the resident Mr. Yang and Zhao, who are both nearly 70 years old, undertook most of the community public affairs.

The community need to renovate the living hall. We conducted an informal talk with aunts at the owners committee for half a day. Through the conversation, we learned that the subdistrict office expected the community themselves to renovate the public living room, but they did not have any professional abilities no matter in design and implement. So we as designers involved in this project by co-design with the local residences for promoting the public space and neighborhood interactions.

In order to understand the user demands, we started with the design workshop (Figure 3.11). In the workshop, we tried to learn about residents' habits for daily life to get the plan for space utilization. The old people seldom gather at the community center. They hope it will be used as the site for children's after-class activities.

Figure 3.11 Workshops showing the floor distribution and daily activities (photo by author)

Excepted the co-creation of design plan, we also hoped that more young resident could take part in the public activities. Therefore, we proposed the idea of "community class". in the class, residents who has different skills will be the teacher and share his/her professional skills to other residents.

The first community class is about painting. Since the corridor needed to be decorated, we thought that we could invite kids together to draw something for the public space.

We heard that there was a professional painting teacher Mr. Gao living in the community. I asked Aunt Zhao to invite this teacher to host the community class. Aunt Zhao tried several times but Gao rejected this invitation. He said he don't have much experience to teach the kids. Then we have to invited another painting teacher out of this community. The idea of evolving local talents has not realized in this class.

The empty public living hall should be filled with some furniture such as tables and chairs to support the class. We added some desks and started the first activity. Fifteen children attended it, and some children from other communities also came to our activity. With the guidance of art teacher, the kids spent a very happy time and completed their drawings. They signed their names, address and house numbers, then posted the painting in each corridors.

The second community class was host by the nephew of Aunt Zhao (Figure 3.12). His name is Liu Yuxuan, who studies in a preparatory class of an elite school in Shanghai. He is quite a capable boy who is quite interested in astronomy. He made fully preparation for this activity and introduced various interesting information about different galaxies. Fifteen kids in total came to the lecture. During the class, an mother considered that the weather was too cold, therefore she purchased hot milk drinking and share them with the kids. She was the first resident who offered something to the community which make the author feel touched.

These twice community classes were quite successful. After the class, the residences formed a WeChat group for daily interaction. For example, mothers communicated about how to buy the suitable astronomical telescopes for kids.

Figure 3.12 Community courses (photo by author)

Through verification of usage scenarios in these two community class, designers gave up their original design ideas about the living hall and adopted the suggestions by the aunts from owners committee that actually the space doesn't need require a lot of stable furniture.

According to the demands for children's activity sites in the first workshop, we decided to reuse the free region in front of the entrance. Due to negative impacts of ponding, it was replaced by the green plastic with no other additional functions. We collected some residents' suggestions and proposed a design concept "Yidun island" (Figure 3.11). Island means a place for kids to explore the space through different sport facilities.

Figure 3.13 Residents' feedback for the design proposal (photo by author)

The construction of Yidun Island was completed in three months. An area of 40m^2 have greatly activated the community (Figure 3.14). Later on, events and activities were also organized on this new site. (Figure 3.15).

Figure 3.14 Daily scene of the playground (photo by author)

Figure 3.15 The day of International Children's Day (photo by author)

▆▆▆Case Six: Community Renewal

In 2015, the author together with the her colleague launched a community project name "open your space" and applied the biennial exhibitions of Hong Kong-Shenzhen. As curatorial team, we selected Siping community as an experimental design objective to explore how design could contribute for community renewal and revitalization.

Siping Road community is located in the mid-western part of Yangpu District. It covers an area of 2.75 km². There are more than 70 communities and most of the residential communities were built more than 20 years. They were worker villages which provide living space for Shanghai workers since last 1950s.

For example, Anshan village is a typical example of "worker village". It was established in last 1950s, which used to one of the largest and earliest estate for workers in Shanghai. Later, it was expanded to eight estates. Most buildings are old public houses with unitary colors and shabby facilities. There was not enough space for public activities.

Although the community has relatively old , there are still some traditional handicrafts, such as barber shops, repairing stalls, master workers for pedicure and pastry making, as well as clinics in the community. Many skilled workers, who used to make contributions to the industrial development of Shanghai, live in the new estate. Meanwhile, due to institutions like

Tongji University within the district, many high-level intellectuals with professional and critical spirit also live here. In addition, a lot of migrant workers choose to settle down in this region. In traditional concept, Yangpu District, where Siping Road is located, is considered as "low corner" of Shanghai. But according to some surveys and interviews, many local residents like to live in this area. They think community life here is quite convenient. For example, it is quite close to hospitals and food market.

The project was activated by the cooperation between sub district and schools. The earliest participants included different departments of Siping sub district offices (offices of culture, management, city appearance and Party construction), and curatorial design teams. Based on one round of coordination on 12th Sept, and site investigation on 18th Sept in 2015, both sides reached consensus about micro space improvement within the community. Later, more participants were introduced by curatorial teams, including 30 students from the College of Design and innovation, young architects ,designers, and community residents as well. Students took part in the project due to their courses in city reading and environment narration, while young architects were involved because of their keen interest in space upgrading.

Community residents played different roles in this project. About 30 residents were invited to join the "Siping community imagination" workshop. It only lasted for half a day, so interaction was relatively weak. In spite of WeChat groups, resident connections were not quite strong due to lack of interaction.

3.4 The Collection of Research Data

The author recorded the above six participatory community cases by field notes and collected 27 participatory design sceneries (Table 3.1). The notes were without subjective assessment or any psychological interpretation to ensure the objectives. The record focuses on three aspects, namely: (1) The performance and reaction of stakeholders in the participatory design process, including their words, emotions and actions. (2) Participants' feedback on participatory design tools and processes. (3) The final results and outputs of each case. The purpose of (1) and (2) is to understand the feeling of stakeholders in the process of participation. The purpose (3) is to understand whether different communities have different participation processes and outcomes. The record is mainly field notes along with explanations, comments, memos, and photos.

As shown in Table 3.1, the author numbered the participatory design scenarios in the six

selected community cases. Each case is labeled as first-level, and the specific scenarios

occurred in each case are the second level. For example, the case of "Youhe Sustainable

community" is labeled as Number One. The first scene about the joint discussion among

designers, the community committee secretary and the garbage room cleaning staff is

numbered 1-01, the design workshop process is numbered 1-02, and so on.

Another source of coding material also includes a memo written after each participatory

observation. The writing of the memorandum also serves as a key step in the collection of

qualitative data, documenting the researchers' thinking, analysis and commentary after the field

survey. The author began writing a memo after the end of every participatory observation

process ensuring that ideas are recorded timely.

Table 3.1 A list of participatory design scenery (by author)

No.	Names	Participatory design scenery		
		No.	Themes	Photo
1	Sustainable community	1-01	Discussion with the director of the neighborhood committee and the garbage room cleaning staff	

		1-02	Discussing design workshop processes with environmental agencies	
		1-03	Community representatives work together on project design and project development	
		1-04	1st Design Workshop	
		1-05	2nd Design workshop	
		1-06	3rd Design workshop	
		1-07	The opening of new space	
		1-08	Daily maintain and use	
2	Neighborhood placemaking in Beixinjing community	2-01	Participatory design process in H building	
		2-02	Participatory design process in S building	
		2-03	Participatory design process in N building	

		2-04	Participatory design with kids	
3	Neighborhood placemaking in Siping community	3-01	The first meeting with local residences	
		3-02	Co-design with local residences	
		3-03	Implementation with residences	
		3-04	Daily use	
4	Co-design of public living room	5-01	Participatory design workshop	
		5-02	Implementation with residences	
5	Children partiicpation	5-01	The first meeting with local people	
		5-02	Participatory design workshop	
		5-03	1st community lectures	

		5-04	2nd community lectures	
		5-05	Design proposal consultation and adjustment process	
6	Community renewal project "Open your space"	6-01	Participatory design workshop	
		6-02	Discuss with proposal with local government	
		6-03	Discuss with proposal with district government	
		6-04	Test plan on the street	
		6-05	User feedback collection	

3.5   The Analysis of Research Data

Qualitative data analysis requires researchers to gradually extract and concentrate to gain

the complicated qualitative data, and seek for the meaningful contents. My two-year field

actions accumulate abundant data and materials for this research. I have collected all the

qualitative data, including interview records, research blogs, on-site videos, pictures and

recording texts. According to the analysis steps of ground theory, the author conducted data

analysis as following three steps.

███ Open Coding

Open coding analysis is to decompose and label the qualitative data line by line or

sentence by sentence. The main task of open coding is to make a preliminary summary of the

data, and to rename the essential meaningful segment of the data. The purpose of this step is to

conclude the phenomena and refine the materials. By discriminating the meaning segment , the

concept can be a word, a phrase, or even a short sentence. Under the intensive analysis sentence

by sentence, the researchers were able to slow down and rethink the issues before collecting

new data, and compare interesting phenomena to discover important and prominent phenomena

that researchers are interested in.

After completing the textualization phase of multiple cases, the author openly coded the

case through the following two steps. The first step is to mark the meaning segment, and then

to combine the similar ones (Table 3.2).

Table 3.2 Preliminary coding (illustrated by author)

No.		meaningful segments	code
1-01	1-01-01	Today, we went to Y community with two staff of environmental protection organizations, H and W, and communicated with director of resident committee H for the first time. We met at the LS resident committee. The office is newly decorated, which required extra a lot of thoughts.	Community foundation
	1-01-02	In the bright meeting room, we met with H secretary. She is about 40, wearing the orange uniform of volunteers. He is quite nice. We learned that she deputy to the NPC of Shanghai.	Community leader
	1-01-03	The secretary told us about the estate and project. She wanted to turn the rubbish storage space into a "scenic spot"	Standpoint
	1-01-04	After her introduction, I added, "I hope more residents can take part". Mr. Huang smiled, agreed and said, "Residents are not that competent in this community. We need 'experts' like you!"	Design authority
	1-01-05	We saw rubbish compressor for the first time, and asked Mr. Miao how the machine worked. He turned it on and demonstrated the process to us.	Mutual learning
	1-01-06	We found many things that he picked up in the room, including old furniture and empty bottles. In summer, he sprayed the toilet water to get rid of the bad smell of rubbish.	Daily wisdom
1-02	1-02-01	In this process, I think we need to discuss more about what the residents wanted it to become in this community. For example, they just want to sit there and take some rest. We are not quite clear about such demands." hence, she thought the first mission of the workshop is to get an answer to this open question	Identity user demands

	1-02-02	What do you hope to do in this space? This space belongs to you. What do you expect it to become? We still need to think about it. One sentence should express the connotation clearly and actively	Empower
	1-02-03	In fact, this is a defect of the project. If two systems are involved in the project, comparison is difficult. Their idea is to ask for a professional person to offer daily help, and residents just sit there. It was not consistent with the initial project purpose.	Professional outsourcing
	1-02-04	Basic maintenance is conducted by roof garden companies. Professional plant protection is done by property management. Daily arrangements are completed by interest groups. Specific missions are done by exclusive personnel.	Coordination
	1-02-05	We need to develop this group. What we expect is that in the future, this space will still be supported by capital or cared by other people.	Sustainable
	1-02-06	Design and brainstorming process are conducted a little more than reality. Based on "a little more", development a team of management.	Difference between design and construction
	1-02-07	This space is shared by every stakeholder. In this case, everyone can sort out his appeal to this area. Everyone is equal, and has same right of discourse and utilization.	Equality
	1-02-08	The purpose of the workshop is that we expect to develop the code of conduct for residents to place building wastes. Maybe it was a rule of management, but it wasn't approved by the residents.	Local rules Locality
1-03	1-03-01	When reporting to leaders, we consulted participation of residents. The sectary said, "mass participation in project and promotion can ensure smooth operation, obtain important indicators of final assessments".	Project basis

1-04	1-04-01	As for voting by show of hands, everyone responded "Not bad!"(A women repeated for about four and five times). they raise hands for about two to three minutes and showed consent.	Positive emotion
	1-04-02	Mrs. H summarized the skills of meeting. As usual, residents soon forgot about rules of meeting. Community staff and sectary kept reminding "Everyone only says one sentence" ,and the situation got better. But it interrupted the consistency of the meeting. Mr. Hao and sectary said "there is only difference, and not right or wrong" in brainstorming. Criticizing is not allowed. It is an important rule of Robert discussion	Sense of rules
1-05	1-05-01	It seemed as if the residents attended an event in spring festival. They came to the activity center with excitement.	Positive emotion
	1-05-02	They wrote their names on the stickers. Residents weren't clear about what to write on the stickers. Women were more active in cooperation. Men just walked into the site or stood by and watched. With our guidance, everyone wrote down his or her own name	Neglect rules of participation
	1-05-03	Mrs. H began the introduction. Rubbish storage should be managed. The estate should be turned into scenic spot	Standpoint
	1-05-04	Capitals are raised by multiple parties. Fund sources include five aspects. The first one is that Luoshan neighborhood committee is rated as the national science popularization community with a prize money of 170,000 yuan. The second one was regional Party construction. Some enterprises supported this project. Rubbish storage management is meaningful to corporate divisions of every commercial residential building.	Crowd funding
	1-05-05	When talking about the flower club, everyone seemed quite proud. An aunt said: Look! We all come from the club! Other people also applauded for her.	Positive emotion Community identity

1-05-06	Why can't it be a project like this? Because such project operation may not meet the new requirements. It can't effectively respond to usage requirements.	Defects of traditional projects
1-05-07	It is a project of space reform, autonomy, resident participation and environmental protection. So it has multiple identities	Multiple traits of participatory design
1-05-08	What do you expect it to be capable of ? Director Huang, Cleaner Chen, residents, flower club and owners committee, what do you hope for the functions of this space? Everyone has demands. We need to learn about them, because this space belongs to everyone	Space imagination
1-05-09	There is still time for revising the design. I need to make some minor adjustments.	Save costs of revision
1-05-10	In different groups, we give each of you a piece of paper, discuss the problems and write it down. You have to record them in texts, in order to change our future for the better.	Text
1-05-11	Residents divided in to groups. Things got disordered. They couldn't figure out what group they belonged to	Self-positioning
1-05-12	Mr. Gu proposed the idea of rolling door , but it should be installed in the horizontal direction.	Lack the common knowledge
1-05-13	We mainly focused on the daily management of Aunt Chen	Disempower: being represented
1-05-14	As for flower club, roof gardens should have water and electricity. Composts should be sealed with ventilation. Flower stand is also necessary for residents to see the flowers in the distance.	Users imagination
1-05-15	The requirements were not completed by the resources of owners committee and Mr. Huang. It was also quite hard for them.	Division
1-05-16	We could discuss a lot of things in one hour and 40 min. If we keep a favorable order and procedure, many things can	Consensus emerged

		be recorded in written forms to reach agreement. It is the power for us to take part in participatory meeting.	
	1-05-17	Mr. Huang smiled and said: You gave quite a good name	Rely on professional
1-06	1-06-01	Mr. Mao also asked the question: should the residents be charged for building waste piles?	Disempowerment
	1-06-02	"Loud voice" sectary of neighborhood committee, Mr. Gu said, "As the director, I often walk around in the estate. Mr. Wang didn't quite specify about some of the rather complicated issues."	Personal character
	1-06-03	Secretary also added: I think Mr. Wang needs to point out one issue: only ten tons of rubbish will be cleaned away. But we don't know when it will reach that amount. So it is a matter of time	Essential issue
	1-06-04	Yes. That is the point I want to make. What does it mean? Rubbish will be cleaned away only when it gets to ten tons. It concerns the cost instead of overall garbage management. economic effectiveness is considered.	
		Mr. Huang: 1. how many tons of garbage will be cleaned away? 2. how many days will it take? Mr.Li continued to summarize and add. I think three points are critical. 1. ton 2. time 3 breakthrough inspection	Gradual consensus
	1-06-05	Li: beautiful, odorless and dustless Song asked everyone and they agreed. How many tons do you think should be cleaned away? What is the standard of beautiful?. It can't be seen with eyes. Huang: Another requirement. I hope they seem normal and regulated in unison rather than disorder Mr. Lu: it should be hidden, so that others won't litter around	User- abstract concept Designer- embody
	1-06-06	Everyone was quite pleased with it. They finally found a way to solve the problem	Positive emotion

	1-06-07	Everyone wanted to see if it was OK for forklift to come in and out. Mr. Li would take charge tomorrow	Joint effort
1-07	1-07-01	The project would be a waste of time if rubbish reaches ten tons. Aunt Chen quickly agreed: That's right.	Everyone is equal
	1-07-02	One owner said: We thought about stone bench for the wall Another woman said: it won't work. Li: It's very obvious! (emphasis) Xiong: No place for stone bench now. 200 yuan will buy a new one(loud voice)	Regional personality
	1-07-03	I also wanted to use this as public chair, but it is too high. Others say we dig out 20 centimeters down the stone. Everyone agreed.	Thinking and attention
1-08	1-08-01	Mr. Hao invited a professor from the sustainable development center of Tongji University. He is quite nice. Later, I went to his office, and learned about some technologies he applied	Social network expanded
	1-08-02	In the opening, Li asked me to recommend a guy to his daughter.	Social network expanded
2-01	2-01-01	Young mother and her child patiently selected the intention	Influence of family members
	2-01-02	She said angrily, "Don't do anything in front of our house." "Where should we put the clothes hanger and hang our clothes on rainy days?" "It is our place, OK?"	Lack of morality
	2-01-03	Mr Liu said that residents should also be checked. Corridors wouldn't be decorated if they didn't cooperate	Conflicts between officials and folk
	2-01-04	One resident made troubles, but she complied this time. She was not angry or discontent. She changed clothes and took pictures in the team. We were shocked and puzzled. I asked Liang Yan, secretary of neighborhood committee. Nothing changed in fact. Local people in Shanghai call this "high and low feet"	Face culture

	2-01-05	A neighbor said to Mr. Jiang: Your space is fine by now, but our still looks ugly. She sounded jealous somehow. Mr. Jiang explained to him: Keep quiet about it. Your corridor will also be reformed	Afraid of misunderstanding
	2-01-06	Everyone though it was a strange method. Maybe it didn't work essentially.	Unproperly way of participation
	2-01-07	We wanted to install a clock on first floor. They considered it as bad luck. Mr. Jiang used to support us, but he also hesitated	Regional culture
	2-01-08	Mr. Jiang gave me two bead dolls as the gift, and put it in the bag	reciprocity
2-02	2-02-01	The 90-year-old grandma didn't open the door, but a survey was still conducted	Impact of family members
	2-02-02	On 2nd floor, the grandpa is fond of calligraphy. Grandpa and grandma are immortal couples. Because we didn't offer manuscripts to the construction team, the clouds they drew didn't look good. I wasn't happy with either. But grandpa said: mounting the clouds and riding the mist seem quite cute somehow	Character personality
	2-02-03	Neighborhood committee secretary said "Instead of message board, it is better for the committee to post notices "	Afraid of public sentiment
	2-02-04	Secretary said residents in Room 601 complained a lot. He said the project was in vain rather than actual implementation	Character personality
2-03	2-03-01	Photo frames should be larger to contain large pictures. Due to tight budget, we didn't offer 500*500 frame she wanted. She was rather unhappy.	Hard to communicate
2-04	2-04-01	Because children didn't have the right time, or the activity was beyond their courses, only one event was held.	Lack of overall atmosphere

	2-04-02	Three groups didn't take part in the event by neighborhood committee cadres. Parents and their children expressed the ideas of buildings for relaxation, happiness, rainbow and green heart. They focused on themes in daily life	Standpoint
	2-04-03	After the workshop, residents put the posters in the corridor. They also had interactions online.	On line interaction
3-01	3-01-01	Took us to visit No.16 building	Community autonomy
3-02	3-02-01	Residents looked somehow solemn when listening to student reporting. They saw the prototype, cheered up and discussed with students about the model.	Emotion and participation
	3-02-02	A group of residents made lamps. They showed positive feelings.	Positive feeling
3-03	3-03-01	Residents thought other people would take care of it, and they didn't care about it	Lack of morality
	3-03-02	But there were also interactions, such as kids' comments and residents presenting desserts to student designers. Those who believe in Christianity recommended youth choir at 7:00 p.m. July 24th . Two kids worked hard in spite of sweat, and took pictures together.	Relationship improvement
3-04	3-04-01	On WeChat, we contacted owners to maintain the "community union"	Social network
4-01	4-01-01	First workshop began at 7:00 p.m. everyone arrived at around half past seven.	Lack of unity
	4-01-02	We asked everyone to take turns to give opinions. They follow the rule at the beginning, but they ran out of patience little by little. So those who didn't make statements became disordered.	Robert's Rules of Order Lack of rules
	4-01-03	In self-introduction, a young resident saw the workshop. She listened and asked for a statement. The young mother proposed her own idea of after-school care in the evening.	Express demand

	4-01-04	In need of design, I should consider everyone in the whole building. children's playground can be set up in the sunlight room. As for the after-school care class in the evening, I am an English teacher. If I don't go travelling, I can offer voluntary (tutorship)!	Contribute skills
	4-01-05	I have a question. Will next-door printing affect air quality?	Rational thinking
	4-01-06	When Mr. Shi stood up, someone said, here comes the summary talk	Community levels
	4-01-07	As for garbage classification, it is in the stage of formality. To achieve real garbage classification, it is better to install recycling bins	Good awareness from residence
	4-01-08	People made active statement in this stage. But owners committee secretary talked with others. Researchers reminded not to "talk privately". Peter said with a smile "We are not pupils, and we don't go to school hand in hand. So we have talk on our own"	Reject rules
	4-01-09	Although I didn't engage in each group, I could feel the heated discussion. Nobody went back to the desk and sat down even time was up	break rules
	4-01-10	We gave to intention list to everyone. The group that had designed sunlight room, went it through quickly for once. They just closed it and said: Nothing useful in it. They "wrote down" their ideas then.	Inapplicability
4-02	4-02-01	Zhu took pictures with her camera. She also made photo albums and share them in the WeChat group.	Contribute skills
	4-02-02	A resident on 4th floor came down and asked if it was about to open a tea bar? Mr. Li asked if she was the owner lived here? She said yes. Peter said it is the space of owners, and you can't come. Lady said something about improvement of the 4th floor. Peter said that she go to talk with leaders in Tongji University.	Community exclusiveness

	5-01-01	Aunt Zhao did not regard me as an outsider and talked about some hardships in the work of the owner. In particular, after a member suspected of using public power was removed from the committee, she suffered many hostility from this member.	Trust
5-01	5-02-01	Residents also came along. Aunt Zhao welcome every one of them. She also calls the names and greets to residents as usual	Community leader
	5-02-02	When filling the forms, some aunts thought this step was strange, and expressed different opinions about it.	Inapplicability
	5-02-03	Prof. Tian had opposite views. His answer may be an example to everyone	Seek for capable people
	5-02-04	Mrs. Yang with clear mind considered himself as an organizer rather than a participant. He completed his mission anyway. She answered phones calls.	Unclear identity
	5-02-05	Mr. Tian thought children should play in this place after class. He was firm about his idea, but he was rejected by Aunt Zhao. She was concerned with safety and management	Divergence
	5-02-06	According to original plan, the community center should be locked up. It only opens during activities.	The right to make decisions
5-03	5-03-01	He was fully prepared. His parents also made ppt and videos for him	Family participation
	5-03-02	Considering cold weather, a mother bought hot milk teas and gave them to kids	Reciprocal
	5-03-03	They also formed a WeChat group in the second course. "Mommies" talked about how to buy the suitable astronomical telescopes for kids. Cong Cong's mother shared links for extra-curricular activities.	Online interaction

5-04	5-04-01	The author asked Aunt Zhao to invite a drawing teacher Mr. Gao. After several invitation, she got the reply that "Gao knew it was difficult to teach kids drawing class, as he is not able to light up the atmosphere"	Community experience
	5-04-02	The designer focus on decoration so they designed a lot of furniture. But the aunts hope to leave room. After discussion, I decided to purchase only a small portion.	Consensus
	5-04-03	Teachers guided kids in happily finishing their works. Later, they were signed with kids' names and address, and posed in the corridors	Community Produce contents
5-05	5-05-01	Aunts at the owner committee said some kids wrote this at random.	Rules and regulations limit imagination
6-01	6-01-01	We found that participants were the actively aunts in the urban neighborhood committee system	Groupuscule
	6-01-02	Kids were quite happy in participation and playing	Education
	6-01-03	The children mentioned that they want to add parks and bookstores. The children's participation is very positive.	Education
6-02	6-02-01	The propose took a lot of efforts. Leaders of Tongji University should not keep on saying that the school is filled with knowledge but (sub-district) is illiterate.	Participation dispel misunderstanding
	6-02-02	Director Du brought resources to the sub-district. Otherwise, we could not complete the tasks. We couldn't understand what you (designers)said either	Participation dispel misunderstanding
6-03	6-03-01	In terms of mass interaction, I saw the participation of high school schools during the Open Day. This is quite good. Then, are the surrounding shops and factories willing to take some resources to participate?	Government attitude
6-04	6-04-01	A resident passed by and watched for ten minutes and communicated with the classmates: "The idea is good, but it doesn't depend on the quality of the person. I have seen a young man before…" and talked to the students ten times.	Curiosity

		Minute. Finally, self-deprecatingly said, "There are not many curious old women like me!"	
6-05	6-05-1	The old people told us that they like "affordable" things, such as having a canopy on rainy days, or sunbathing when the weather is warm, because if there is too much sunshine in the place, they won't sit there.	Standpoint

▨ Core-axial Coding

Core-axial coding is a recombination of concepts in a concentrated manner around a specific "spindle" category based on open coding. Spindle coding is the process of combining concepts into categories, and finding correlations between categories and developing into interpretable story lines.

In the spindle coding analysis phase, the canonical model is a commonly used analysis tool for establishing relationships between categories, portraying story lines, and extracting core theories. The canonical model consists of six aspects, namely (A) causal conditions - (B) phenomena - (C) context - (D) mediation conditions - (E) action / interaction strategy - (F) results. Based on the categories summarized above, the author established a model for the interaction between participatory design and community. The specific description and story line are as follows:

(A) Causal conditions - restrictions: With the fine division of the profession, design has become a division of labor. Constrained by "professional thinking" and "expert mode", users often rely on or trust the designer's ideas and skills, and think that the other party is an "expert" who is high above, has no initiative and confidence in their own participation, and neglects their own initiative. This greatly limits the participation of non-design professionals;

(B) Phenomenon - tool exclusion: In the process of participatory design, there is often a phenomenon of inapplicability of tools, mainly reflected in the exclusion of users, especially older people, from participatory design tools such as drawing and intention selection. Mentality

(C) Situations and contexts – community structure (community-family-individual): Factors from three levels of community, family, and individual that influence the effectiveness of participatory design. Specifically, at the community level, the existence of community levels is very important to ensure the fairness of participation, leading to the neglect of the voices and needs of some people; the emergence of families can strive for more social resources for the process of participatory design; From the first two factors, the impact of the community and the family;

(D) Intermediary conditions - core attributes: Compared with the expert design process, the participatory design process has three attributes of diversity, ritual and openness, breaking through the boundaries of conventional design. For the purpose, diversity meets the complex needs of political needs, civic education, community and new; ritual is a process of public integration and social interaction for the process. Openness for results, the results are open, uncertain and unexpected;

(E) Action strategy - Participation Behavior Model: In the participatory design process, participants engage in a series of interactive behaviors, including understanding, empowerment, collaboration, exchange, and disagreement. This series of actions is intertwined and constitutes the social interaction of participatory design;

(F) Results – Creating Results: The results of participatory design with the goal of community creation are beyond the scope of traditional design outcomes (plans, texts, drawings). It establishes social interactions, community consensus and community rules, and the results are social.

In the above relationships, communities that are contextual and contextual, as well as participatory designs that provide intermediaries, actions, and outcomes, can interact and

influence each other. Based on the canonical model, the author mapped the participatory design and community relationship model. The author found that the three levels of community, family and individual as the context and context affect the participatory design. These three levels point to an important concept in the Chinese social structure, namely the characteristics of the "differential mode". The so-called difference pattern refers to the two dimensions of the horizontal self-centered "poor" and vertical hierarchical "sequence" in the social structure of China, and its meaning will be specifically stated in the fourth chapter and the fifth chapter.

█████ Selective Coding

Selecting a code selects a core category in all categories, and the other categories become a subsidiary category, and then combines various theoretical elements through an integration scheme or a story line. Scope, attributes, assumptions are integrated. The main task of the process is to identify "core categories" that can lead all other categories.

By further analyzing the data of the main category, the author responds to the adaptive problem with the core category "community mode". The story line of the core category is as follows:

Through the analysis of the above main categories, the author believes that in the community building process, participatory design and community are related. Specifically, when participatory design attempts to influence the community, it is itself influenced by the individual-family-community, presenting a compromise and coordination. In order to further clarify the impact of the community, the author analyzes the situation and context, and uses the difference pattern to summarize the characteristics of the community. On the other hand, participatory design itself is open, diverse and ritual, exerting influence through a series of action strategies and outcomes, leading to a shift in the community.

Chapter 4: Research Findings

Part One: Influences from "Community Differential Mode"

Not all participatory design processes can facilitate community building, as "appropriate" and "exact" approaches are necessary on the basis of a thorough understanding of the local community. When the author interviewed Hong Kong community building practitioner Chan Yunzhong, he mentioned that it was hard to say which community building case is the best, since the situation of each place is different. Upon the recognition that community is a complex cultural ecosystem consisting of places, people, values, institutions and people's lives, simple understanding of the one-way impact of participatory design on community is not enough, and the impact of community on this design process is more meaningful for localization. On this basis, the interplay between "Chinese communities" and participatory design approach is the main body in this chapter.

"Localization" is the core issue and a challenge for participatory design methods. For research on localization, self-analysis based on the local community is one side; cultural comparison of different communities to highlight the difference is the other side. The author

believes that taking the local community as the basis is the primary task for now. Comparative

research is a matter of course when "The nature of community" is figured out by scholars and

doers. As a matter of fact, due to the limitation of language in communicating and practicing

outside the mainland, field operations are concentrated in Shanghai. In the context of Shanghai,

on the one hand, with few language barrier, the author is able to capture and understand the

connotation of language more clearly, including "local jargon"; on the other hand, the relatively

familiar networking of the author is beneficial for the organization of various actions. Therefore,

the local culture discussed here is mainly represented by Shanghai, which is a representative

city with relatively advanced economy and culture in mainland China.

4.1   The Origins of "Differential Mode" Theory

Mr. Fei Xiaotong is a Chinese famous sociologist. In 1947, he compiled and published a

book *From the Soil: The Foundations of Chinese Society* based on his lectures on rural

sociology in University of South West Union and Yunnan University. In the book, Fei

elaborated fourteen features of rural society, especially the theory of "differential mode", which

highly generalizes the traditional Chinese social structure and interpersonal relationship logic.

Its influence has gradually expanded in social studies of China, especially after the 1980s, its

fundamental role in describing the phenomenon of Chinese society and Chinese people has

been further demonstrated (Zhai, 2009).

In this theory, Fei compared the social structure of the West with the East by the metaphor

of "firewood" and "ripple" respectively (Figure 4.1). As he said, "the western society is

somewhat like bundling firewood in the field, several straws are bundled into one bunch,

several bunches are bundled into one sheaf, several sheaves are bundled into one bundle and

several bundles are bundled into one pile. Each straw belongs to a certain bunch, sheaf and

bundle in the whole pile. Each straw can also find other straws in the same bunch, sheaf and

bundle, without disorder. Western social groups are often composed of several people with

certain limits. People inside and outside the group are distinguished clearly". It is a kind of

"group mode". In this mode, everyone has an equal relationship with the group, "if the group

is differed in terms of team or level, it is specified in advance". On the contrary, in the rural

social structure of China, "the pattern is ripple emerged on the water upon throwing a stone

rather than clearly bundled firewood, as everyone is the center of the ripple according to his

social influence" (Fei, 1998).
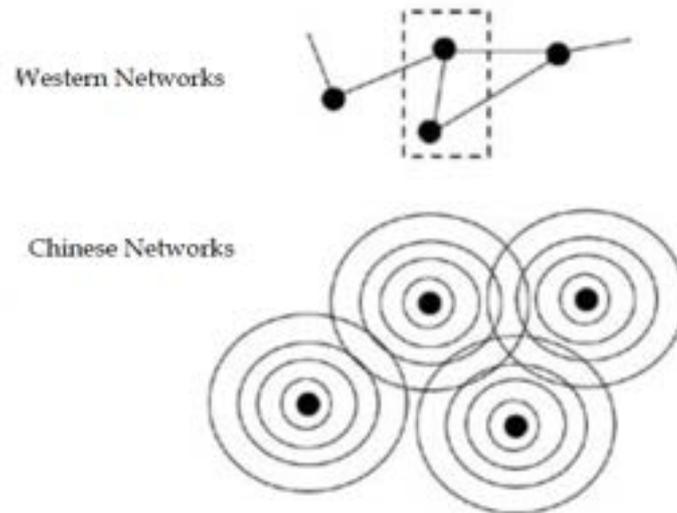
Figure 4.1 Two different pattern in Chinese and western networks (Herrmann-Pillath,2016)

In the rural society, the property of the ripple centered with "oneself" is mainly reflected

in the kinship and geographical relationship. Kinship is the nature of the concentric ripple, as

each of us has a network spread by our kinship. Geographical relationship goes in the same

way as centered with own status, families draw a circle around which is calling "neighborhood".

Fei summed up the layers of differential mode into "Oneself-Family-Country-World".

Differential mode has the following features:

(1) For the so-called hierarchy, "different in degree, distance, relationship and height,

different layers vary in importance" (Ma, 2007), the scope is not fixed, as it spreads out

according to the power of the center.

(2) The theory of differential mode reveals how the feature of "ambiguous concept, indistinct margin and flexible scope" of "family", the most basic unit, is shown in the social structure of China. First of all, the boundaries of the "family" are unclear for "scalability", and even "highly scalable", as family member can include any person to be included in the circle and extended with affection (Ma, 2007).

Associated with modern society, the concepts of "community" and "family" are often equated in some slogans issued by the government, such as the slogan of "the community is my family, the environment depends on everyone", "the community is my family" and "Everyone is part of the community family". The concept is not available in Western society, because community and family are clearly bounded, in other words, community is not "family" at all. It embodies the scalability of "family" in differential mode. With the popularity of residential commoditization and the alienation of people in the same area in terms of consanguinity and business relationship, "family" presents ingrowth, as rare people regard the community as family, without realizing the situation of "Community is family" appealed by the government. It is the prominent problem of community nowadays. The author ponders on

in what case urban residents are willing to regard the community as family? The requirement

is that needs in family are met in the community context.

(3) Group order embodies "individualism", the core value of Western Civilization,

emphasizing the individual's freedom and importance, as well as the virtue of self-

independence; differential mode embodies "egoism", emphasizing being self-centered.

Why the features of differential mode are reflected by the rural society? The distribution

pattern and mode of scarce resources in society is one of the reasons, determining that people

have to use "oneself" as a starting point to seek for other accessible roles that are closest to

themselves for resources. The agricultural society with underdeveloped transportation and high

geographical restrictions makes family the foremost source of resources for people. Favor

exchange in differential mode is a major way to expand the trust network and get access to

social resources (Li & Luo, 2012).

Differential mode is used to describe the traditional rural society. Profound changes have

taken place in differential mode of rural society owing to the structural changes of rural society

in China. The traditional blood relationship is intertwined and integrated with the modern social

economic relationship (Hong & Lin, 2005). The infiltration of marriage, pseudo-blood

relationship and business relationship into differential mode results in the expansion of the

included social relations together with benefit-based relationships (Xie & Niu, 2004). Power,

profit and love has become a major part of the "reasonable core" of differential mode in the

new rural society, leading to the rational development of differential mode.

In terms of interpersonal relationships, local society is an acquaintance society, in which

people know each other. As a result of the long-distance life of a large number of young and

middle-aged laborers in rural areas year around, daily life in rural society is different from the

logic of "acquaintance society", which is called "acquaintance society without subject" for the

large number of displaced young adults (Wu, 2002). According to Professor Wu, the behavioral

logic of traditional rural acquaintance society includes public opinion suppressing, valuable

"face" and accumulative "social capital". However, in the new countryside nowadays, there

are three phenomena of (1) public opinion failure (2) face failure (3) scattered social capital,

so the dissolution of acquaintance society reflects the characteristics of non-subject

acquaintance society while increasing the difficulty of rural community governance.

Whether the above-mentioned differential mode still exists in the modernized society of

industrialization, and what are the evolution and significance? In field analysis, some codes

have turned to the social structure of differential mode. On this basis, the author explores by means of further understanding and empirical evidence.

After over 70 years after the publishing of From the soil in 1947, the structure and form of Chinese society have undergone tremendous changes. First of all, as for industrial structure, the traditional Chinese society is dominated by the agricultural economy, where people live on the land with low population mobility and abundant local characteristics in general. People always live in the birthplace throughout the lifetime, described as "being completely isolated from each other all their lives within talking distance" by Lao Tzu. On contrary, the weakened relationship with land in modern urban community, where agriculture is not the economic base, indicates that geographical relationship has faded and even disappeared. With accelerating urban mobility, lots of people move out of requirements for urban development, job mobilization, children's school attendance or commercial housing of higher quality, but geographical relationship linked by location is still an indispensable congenital connection in community building.

Apart from the differences in liquidity, resources have achieved unprecedented growth in modern society. Most relationships of group and resources represented by "family" are untied,

especially for the relationship with giant families. The phenomenon of atomization of urban communities mentioned by the author in context research is formed in this way. When family is no longer depended on to acquire resources of life, "blood" relationship is weakened. In modern industrial society, the state, the holder of distribution rights of scarce resources in society, uses resources such as production materials, employment opportunities and living space in control to form a new organizational framework, which dissolves "differential mode" based on blood relationship and geographical relationship fundamentally as the basis for forming new types of social relations (Sun, 1996).

Nonetheless, differential mode still exists in modern society, which is not a replica of the classic one, instead, as a model, concept and recognized, structured and relatively stable behavioral norm for dealing with interpersonal relationships, it integrates into various social roles and social status of people in modern society and adjusts the social relations between people, influencing the choice of value, behavior and communication, as well as the distribution of social resources and the flow of social classes eventually. For example, organizations such as schools, enterprises and administrative agencies, as well as urban communities concerned in this thesis. Differential mode of modern society is relatively

dynamic, showing a pattern chosen according to a specific situation. The network of interpersonal relationships formed by differential mode has the dual characteristics of immobilization and mobilization (Bu, 2003). Compared with the traditional differential mode, new differential mode seems to be increasingly farther away from the natural will and turning into a purely rational will, which explains why it is new…The determination of "one of us" also depends on prospects, design and selection of the most effective channel achieved by the people who are at the center of differential mode in specific situations for their own interests and power claims (Xiao, 2014).

Differential mode has the following features in modern society:

Firstly, circle order of differential mode changes. In traditional society, family has the closest relationship with "oneself" as the sole social basic organization for obtaining scarce resources in the community (Bu, 2003). Country is at the outer layer of family, and the invisible "world" is at the outer layer of country; in the era of industrialization, most social members are organized into specific "unit organizations" (Li & Li, 2000). "Unit consciousness" of Chinese is formed when people gain supports from organizations. From the disintegration of system of units to the establishment of street system and the implementation of community system

nowadays, the solid social network based on community has not yet formed, as people cannot expect how to get resources of development from the community. As a matter of fact that requirements for scarce resources for survival such as food, clothing have been met, requirements for gaining resources in aspects such as interpersonal communication and spiritual development have been "shelved" temporarily. In a state of vacancy and searching, community is not competent enough to meet such requirements in the stage of exploration.

Secondly, the kinship and geo-relationship mentioned by Fei are of differential mode, but the nature in has been weakened in the modern society. The network based on blood relationship or business relationship is not significant any longer. "Interests" have become a major dimension for interpersonal relationship (Yang & Hou, 1996), including hierarchy of single dimension of ethics, emotions and interests. It is also true in commercial real estates, where communication is based on pragmatic principles of careful calculation (Wu, 2015). The "warming" purpose of "penguin huddle" of China has evolved from the most basic survival needs to business relationship based on land and the current relationship of interests since the ancient times.

Fourthly, since the blood relationship is the most ascribed condition, the relationship between individuals is more maintained by the same interests and values in a community. For example, the Community Garden at Wujiaochang district (五角場) in Shanghai still attracts residents of other places who are interested in farming, nature and food. Taking the superiority of sociality to locality into consideration, we are also entitled to choose our living environment, rather than be connected for the purpose of growth completely.

Fifthly, cyberspace originated from Internet endows people with the freedom to express themselves. With the development of network society, CMC (computer mediated communication) has played down the social status awareness in the traditional differential mode. For example, people can complain for the improper tone of a certain neighborhood committee in the owner's forum openly.

For the transformation of rural community from "the acquaintance society" to "non-subject acquaintance society", urban community can be regarded as a "non-subject stranger society" before being connected in series. Commercially owned communities are typical collections of urban strangers from different fields with different work background and life experience. On the one hand, we feel sad for the disappearance of acquaintance society; on the

other hand, we are looking forward for the privacy of urban life. Community building that

advocates everyone's participation never demands returning to the rural society of acquaintance;

instead, platforms for participation and collaboration are expected in addition to the

competence of community users in creating a good lifestyle together, as people are entitled to

choose the distance.

Well, once strangers form a community in connection, will they still follow the differential

mode to communicate and deal with public affairs? Since modern society is no longer an

"organic organization" community that grows naturally without grounds, is it already a state

of "mechanistic organization", or between organic and mechanical? The author examines these

questions in the dimension of "participatory design" in community building.

4.2 "Differential Mode" Phenomenon During Community Building

Based on the previous analysis, the new differential mode in modern society is fostered

in urban community. It is indicated that building of urban communities is influenced by the

Chinese tradition of rural society, including local complexes and cultural taboos. In his book,

Fei confirmed that Chinese society is of rural nature, which is evidenced by the fact that Chinese is inseparable from the land.

In 2017, the urbanization rate of China is up to 58.52%. However, even residents in cities have rural flavor, which is particular in relocated old communities. Moreover, rural nature of China is inseparable for the society based on villages. Subjects related to "land" in Chinese communities nowadays are always relatively easy to be accepted and participated by users, such as natural farming, food safety and festival celebrations. In relocated communities, many residents still have the habit of cultivating at a small reserved land. Similarly, people also dress their balconies carefully in urban residence apartments. Professor Liu Yuelai of Department of Landscape of Tongji University has taken the lead of his team to build 50 community gardens in Shanghai to promote community autonomy through farming.

Such local complex also contains some rural habits in public parliamentary procedures, for example, the place around teahouses and banyan trees is still a major public field for Jürgen Habermas. With the renewal of urban space, teahouses and banyan trees may be replaced by some places of higher grades gradually, such as community squares, community public lobbies, etc., but the essence of public domain still exists.

As a noteworthy point in participatory design, cultural taboos also influence community building. In the case of space creation operation of Siping transformation, several "accidents" caused by "cultural taboos" occurred. The tree crystal ball (a work of interaction between the light and pedestrians) on Sujiatun Road (蘇家屯路) full of creation was removed after a brief demonstration for being complained by nearby residents with the reason that the inauspicious white lantern affects the health of residents; several community gardens in Siping were originally named after the communities and their features such as "Shun (means lucky) garden 順園" and "Fang (means fragrance) garden", but residents commonly hold that they remind people of the funeral street of Longhua Road (龍華路), Shanghai, so they even hate to mention them; for the clocks installed in stairs during the implementation of "beautiful stair project" to make it convenient for residents to tell the time, residents believe that it is inauspicious that the clock given faces towards home, so no one want the clock face towards home. The designer failed to take the psychological impact of these cultural taboos on users into account in advance, revealing that the cultural context should be considered in the course of participatory design.

Rural complex and cultural taboos are inspiring and referential for community building. In addition, the new differential mode in modern society plays a profounder role in the

structural level in the interaction of participants. Impact from differential mode is everywhere in the "applicable" and "not applicable" scenes in the participatory design mentioned above. They are summarized by the author into five aspects, they are "Rural flavor", "The resilience of Family boundary", "Relationship circle", "Hierarchy order" and "Absence of public morality".

4.2.1 Rural Flavor

Fei Xiaotong judged in "Local China" that Chinese society is rural. The local nature of Chinese society is reflected in the fact that it is a nation that is inseparable from the land. In the agricultural society, people rely on the land to harvest and rely on the sky to eat. In 2017, China's urbanization rate has reached 58.52%, but the imprint of China's long-established agricultural society is still traceable in the city, especially in some old and relocated communities.

For example, many of the themes created in urban communities are often associated with "land" such as natural farming, food sharing, and festival celebrations. In many relocation houses, residents still have the habit of cultivating a small reserved land; in urban residential apartments, we can also see people dressing their own balconies, adding green to their own

homes and beautifying the urban environment. The urban food forest and community gardens

advocated by the teacher of the Tongji Landscape Department, Liu Yuelai, are also providing

opportunities for urban people to get close contact with the land and are very popular.

The characteristics of the native land also reflect the public discussion habits that follow

the rural areas. In rural communities, teahouses, theaters, and village eucalyptus form an

important public domain in Habermas. With the renewal of urban space, the form of these

public spaces has gradually been replaced by some new public places, such as the central square

of the community, the public living room of the community, and the neighboring points, but

still play an important role in carrying public discussion.

The native nature is also evident in the concerns and concerns of users on cultural taboos

in the community building process. For example, in the case of the "Siping Space Creation

Action" in the old community place where the author participated, one of the public art

installations was called "Tree Crystal Ball". This work is a moon sphere hanging from the

treetop with eight sensors. The more people gather to chat under the tree, the more sensors are

activated and the light is brighter. This design concept provides a way to participate in the

design use phase, allowing users to participate in the use of the design work, while also aiming

to increase public interaction between community members (Figure 4.2).

Figure 4.2 Tree Crystal Ball (Source by author)

In fact, when this public art work with the concept of participation was launched, it was

continuously complained by residents living in the neighborhood. Residents even called the

citizen hotline to remove the work. The reason is that white lanterns are unlucky and affect the

health of residents. Finally, this creative but intriguing design was removed after a brief

presentation.

A similar situation occurs during the design and promotion of community gardens in the

Siping community. In the process of promoting the community garden in Siping Community,

the designer team originally named the community garden following the name and

characteristics of the community. For example, the community garden of Anshunyuan, Lane 363, Fushun Road, was named "Shunyuan". However, the author knows from some sources that residents think that the name is easily associated with the funeral street in Longhua Road, Shanghai, so they are not willing to mention the name of the community garden or replace it with other names. Originally, it was hoped that the establishment of a collectively imagined "name" would weaken and even play a counter-effect because of cultural taboos. For example, in the design of the corridor of Beixintun, the public wall clock was originally set up on the stairs to facilitate residents' awareness of time. However, it was unlucky for the residents to feel that the clock was sent to the home. The designer had to cancel the plan.

The love of the land, informal habits, and concerns about cultural taboos constitute the native of the urban community and are highlighted in the process of construction.

4.2.2 The Resilience of Family Boundary

"Oneself" is the central point of differential mode. Influenced by the traditional differential mode, "family" is next to "oneself", and the scope of "family" has no sharp line as a Chinese tradition of rural culture in the past thousands of years. In general, Chinese tends to be familial, as traditional Chinese morality requires mutual assistance between the neighbors,

but unitized living pattern in high buildings makes the neighborhood relationship alienate and indifferent. The family interest centered differential mode exists in various affairs of community. Execution and maintenance related to public affairs are infeasible due to the "oneself" centered pattern. For example, in the Hejiahuan Community of Beixinjiing, the concept of turning the first flour into a "shared lobby" put forward by the street office and design team was opposed by a resident on the first floor, just for worrying about the bamboo pole used to dry clothes in the public area of the first floor may be taken away, so the design scheme based on the concept of sharing had to be cancelled. In the mind of the resident, her consideration is also "public", as she takes the interests of "family" into account.

When the needs of family is fully considered, participatory design is more easier to implement. In the case of Yidun apartment, the theme of the first community course is to decorating the corridor with children's painting which is welcomed by the community for two reasons. First, holding painting training for children in the community is supported by parents who want their children to be trained for painting skills. Second, since children's paintings were used to decorate the elevator hall of their floors, the kids and their parents felt quite proudful with sense of participation. The theme of the second community course is about the

sharing of astronomy, as it is known in advance that Liu Yuxuan, the grandson of Aunt Zhao, is a boy with rich astronomical knowledge. His parents supported his presentation greatly, for example, preparing the ppt and video for him and appealed neighbors to take part in with their personal neighborhood network. The neighborhood lobby was crowded by 15 children and their parents from the community at that day. During the class, a mother bought hot milk tea and distributed to the children considered that the weather is cold. She replied the author that "it was deserved" when the author extended gratitude to her.

Under the influence of differential mode, the boundary of "family" is unclear and scalable. "Family member" can include any person to be contained in the circle and showed affection to, ranging from "one's own family" and "the community". In the case of No.89 Lane's decoration, Aunt Zhu told another woman of the community that the lobby is just like "her home", so she take care of the construction progress of the decoration very frequently. The ambiguity is both a challenge and an opportunity for participatory community building.

4.2.3 Relationship Circle

In the traditional rural society, the size of circle is directly proportional to the specification of blood relationship and geo-relationship. Circle is expanded by the blood relationship

organization, with the attribute rules based on ethical generations. Hierarchical circle is easy

to form for closer geography. The level of economic and political status, the crucial factor of

circle formation, represents the power of control. Cultural knowledge is generally lacking and

desirable for rural residents.

According to Xiao (2014), actually, modern legal persons act in some power and interest

spaces of China nowadays are gang-like interest groups reorganized logically in line with

differential mode. As a primary organization, urban city is also of differential mode structure.

There are explicit interest groups in communities, for example, neighborhood committee

director, block head and building head constitute a circle in the basic-level government system.

For example, in the space creation operation in Siping, participators of the participatory

workshop sought by the street office for the author are also "sisters" around the neighborhood

committee center; in the autonomous system, owners committee has its own circle; in some

cases, the neighborhood committee and the owners committee will constitute a circle. In the

public activities of urban communities, the activity of square dance is actually a circle. The

types of dance and dancing partners are all resulted from the interaction of the circle. Similarly,

calligraphy class, dance class and reading class in the community are all circles.

For the existence of relationship circle, stakeholders will continue to participate after building and maintaining a good "relationship". In the case of Wenxin Community, the interviewee said that "the residents reacted negatively when students conducted the survey with the approach of "cultural inquiry", but they got closed after making dumplings together, as the students could start undertaking then". The formation of such trust is always a key turning point in the participatory design process.

Core people in the circle interact with others in a differential posture. Why are we used to looking for talents in the community? Because resources are behind the talents for sake of the wider circle. Capable persons have bigger "families" and "bigger" circles, in which they have profound connection with others, and they can even regard the units or regions under their jurisdiction as extended areas of their "families" when becoming "officials" in a mentality and manner of "Chief" (Ma, 2007).

Secretary Huang of Y Green Station is a typical "Chief" of community. On the one hand, she regards the whole community as her "family" as the secretary of the community committee. She can outspread when getting enough power. As a key figure, she convened a roof greening

company, a science and technology commission and an electronic smart recycling bin enterprise in the early stage, with the scope of participators extended.

According to Wu (2015), in the space of commercially owned communities with low resident interaction, the individuals of Karisma personality with an appeal of unique personality charm can overcome the strangeness and alienation between residents to some extent.

In the relationship circle, participants pay much attention to their images in others' minds. According to Ma (2007), in western society, everyone's evaluation of himself/herself is based on the system and laws recognized by the public. In the objective standard set by the whole society, people never mind comments made by some colleagues or neighbors; however, a person is evaluated by others in his/her circle in traditional Chinese society", so the recognition of a person depends on his/her handling of the relationship with others around rather than any objective standard. Therefore, "a set of relationships" plays a certain role. In the case of decoration of corridor in Beixinjing, Ms Jiang, the building head of Hejiahuan, is a relatively reasonable community leader. Her interaction with a neighbor on the day of decoration complies with the view of Ma (2007). A neighbor said banteringly that "your corridor is

beautiful now but ours are not as beautiful as yours". Ms Jiang explained that they have no "privilege", as all the corridors are the same.

4.2.4 Hierarchy Order

In the society of group pattern, people in the same group are "all good" and "identical" (Fei, 2002). Influenced by the Confucian "Benevolence", people are unequal. Hierarchy is inevitable for circles.

For example, owners committee plays the role of owners' agent in the community. On the one hand, most of them have their own occupations; on the other hand, they vie for power for owners in the community. However, agents are also influenced by differential mode. Hierarchy is ubiquitous in community involvement. In No.89 Lane, although Director Shi only returns to his community on Saturday, he is still respected by others in the community as a result of his prestige for his career of professional coach. It seems to be a power achieved without much effort. Deputy Director Li reaches his status in the community by organizing group events and hospitality.

Such hierarchy requires the designer to perceive and capture. The hierarchy coherently existed should be considered after identifying the participants of a community. If the

participatory design breaks the original rules of the community blindly, its implementation may

be hindered for being "out of place" with the original community. Community information

may be acquired effectively by taking advantage of the high and mighty. However, it should

be warned against that false participation is possible if local "soft" rules are followed—gaining

recognition from others on strength of their local authority rather than being agreed by people

in discussion. In fact, in the case of Youhe, the "consensus" was reached to via rounds of

discussion before getting access to a design satisfactory for all parties. Therefore, reaching

consensus should not be affected by the "soft" rules in the participatory design process. In the

process of rational analysis, the essence of problem is approached with the consensus being

reached little by little. The connotation of consensus lies in rational contributions made by the

members based on rules in writing and documentation.

4.2.5 Absence of Social Morality

Since differential mode is a network composed of private connections, "moral ideas" in

traditional society are all about private connections (Fei, 2002). For example, it is well known

that "filial piety" is necessary for treating relatives, "brotherly love" is necessary for treating

brothers and "loyalty" is necessary for treating friends. Fei recognized that the reason for

Confucius' unspoken explanation of "benevolence", a moral element seemingly related to the public, lies in that it is difficult to identify a general moral concept specifically in the rural society of China with tender combination of "group". In modern times, it is particularly difficult to implement concepts of public morality such as participation, sharing, commitment, rights and obligations advocated for treating neighborhood and communities due to lacking of cultural foundation and tradition. Community building and corresponding ethical standards are in a pendent state in the layer of differential mode.

Therefore, users who are invited for public participation tend to be hesitated. They will refuse when they need to assume responsibilities in the process of participatory design. Occasional one or two times of participation are acceptable, but long-term assumption is barely feasible.

Such phenomena are common in the field recorded by the author. For example, in the case one of sustainable community development, when participants were asked to form groups according to their interesting and personal resources, they feel quite confusing as people don't know which group they belong to. As explained before, community members are clear about their identities as mother, daughter or aunt, as well as private morality standards of each identity,

but they are not clear about the explicit public morality standards in the public domain.

Although the spirit of sharing and initiative are advocated nowadays, the opportunities for civil

practice are insufficient, namely, the status of "civil society" is unavailable for the society now.

4.3   Reinforce and Restrain of Participatory Design: The Impact of "Differential Mode"

The above-mentioned five characteristics influenced by differential mode in Chinese

community have the affections of strengthening and suppressing on participatory design. The

strengthening effects are as following:

First of all, family participation will be motivated with the family needs when community

building is based on the needs to the family; so the pioneering role of "mom group" in

community building is widely affirmed. This year, the author has carried out a family

empowerment program by the theme of kid education in a certain community to convey some

concepts and skills of natural education to young mothers through several activities. After the

activity, a mother organized similar courses in her community as a result of expanding the

concepts and benefits.

Secondly, the author has identified that many community self-organizations are formed and developed under the influence of "circle culture". Similarly, in the participatory design process, the trust relationship between the designer and the user formed in circles can boost the participatory design process greatly. For example, in the design of "Sweat Home", a simple dumpling banquet narrowed the distance between participating students and community residents. With the affection of "relatives", residents' enthusiasm for the other design participatory activities was stimulated because of the common trust.

Thirdly, identifying the core community leader in the hierarchy will help doers get access to more information of community and connect with the community network.

For its suppressing effect, the private morality in differential mode is based on "benevolence", including the meaning of "differentiation of love", which actually recognizes the existence of unequal relationship between people (Bu, 2003). It is contradictory to the populism contained in the participatory design in the Western Theory. For the sake of hierarchy, if the core figure of the circle attaches great importance to his/her own power, the participatory design that pursues equality for everyone will be played down by the core figure with certain conflicts with the original class of the community generated; small circles are easy to form in

the process of looking for participants, thereby affecting the fairness of design results. For example, if the official of neighborhood committee is the core figure, people who be close to it will form a small group.

As a result of differential mode, hierarchy order also exists in people's concerns about public affairs, as advocating of self-cultivating, family-regulating, state-ordering, then the land great governed is an orderly behavior. Only the requirements of one's family are met, people will consider what to do next for others and for the country. Therefore, to a certain extent, China's community building is still in a preliminary stage. In this view, we need to adopt good participatory design concepts and methods at the outset to ensure that the process moves in a positive direction.

Part Two: Pattern Reconfiguration Caused by Participatory Design

4.4   Participatory Behaviors in Community Building

4.4.1 Empower

Citizen's power in the community is under continuous loss along with professional division of labors. Objectively, professional outsourcing leads to that residents are only aware of their basic residence rights but lose many other identities and possibilities of participation.

The fine division of labor in society has improved production efficiency, but life somehow has also been specialized. According to Yamazaki Ryo, neighborhoods during Japanese Edo-era were self-managed by local residents. Through work and dinners, people could confirm and strengthen their relationship with each other, but with the work of building roads handed over to the government, people's chances of gathering were reduced (Yamazaki, 2017). Everyone in the residential area gave up part of their power, such as simple repairs of community gardens, which was considered as professional affairs. What could be accomplished via full cooperation in the past is now impossible without the involvement of experts. Such cases also happen from time to time in the field investigation. A new table was bought by Lane 89 to be placed in the living room. Nobody had it installed after it is put there for a long time, but actually the installation work is not difficult at all. When it was installed in the corridor, some residents also showed an indifferent attitude. Let's assume it was a homework, things would be totally different. Moreover, under the influence of the long-term unit system control, the community residents also do not realize their diversified identity.

In addition to the "loss of power" caused by professional outsourcing, there is also a phenomenon of "expert worship". People often said to us, "you are the designers and experts, how to design is up to you" (Table 4.1).

Table 4.1 Worship of design experts

1-01-04: After introduction to the project by secretary Huang, I added, "I hope more residents could participate!" Huang smiled and said to me while expressing his approval, "However, the residents here do not have much knowledge. They still need 'expert' like you!"

1-05-15: Finally, Ms. Hao distributed two "assignments" to everyone, the first of which is about the small team discussion on autonomous group, While the second is about site naming to be discussed together. At this time, Huang said with a smile, "The name given by you sounds good!" Ms. Hao still kept her view and said, " This is your opinion, but everyone has his or her own. We hope that next time when we have a meeting, the name could be proposed, ok?"

Urban residents are "disempowered" in community life. In the process of participatory design, residents are given certain powers again, including expressing opinions on public space, raising their own ideas, participating in community governance in some social identity, etc. (Table 4.2) This also requires designers to de-authorize themselves, consciously invite marginalized people into the community building, consciously record users' opinions and give feedback, and enhance their confidence for participation.

Table 4.2   Empowerment behavior during participatory design process

1-02-01: "I think more detailed requirements was what we didn't do very clearly in this process, such as what residents wanted the space to become, on which we haven't actually have more in-depth discussion. For instance, one resident just wants to sit there and take a rest. In fact, we are not very clear about such a demand." Therefore, she believed that one task of the workshop is to get the answer that "what is the true demands" via open questions.

4-01-03: When people were introducing themselves, a young resident who passed by just saw that our workshop was being held there. She stopped and listened for a while and then expressed her requirements in an active manner. This young lady put forward her own opinion that wanted to set up an after-school care here.

1-07-01: Li Guoyong said in a calm way, "This project has brought many benefits to the residents, but if the stacked things are beyond 10 tons, this project will not work." At that time, aunt Chen, an inarticulate woman, unexpectedly and quickly expressed her approval: "Yes, that's right!" Aunt Chen seldom have words daily. Her quick response indicated that she had paid attention to that issue and was thinking about the essence of the problem.

4.4.2 Mutual Understanding

In the process of participatory design, different participants learnt from each other. The designers understand the habits of users and their rich daily experience, while the users also try to understand the specialty of design and the language of designers. A quick and effective understanding about each other's purpose, intention, background, working conditions and so on could ensure that both sides work on the same "channel" (Table 4.3).

Table 4.3 Mutual understanding and self-understanding generated in community

1-01-05: That was the first time the author and the designer met with the garbage compressor. Mr. Miao was very warm-hearted, introducing its daily use and also demonstrating how to use it. His demonstration was more powerful than language, and we soon understood how his tricycle works and how large a doorway we needed to reserve.

1-06-01: Mr. Mao also asked whether the residents are charged for stacking construction waste. Mr. Wang, the property manager made a patient reply.

Why there exists the behavior mode of "understanding"? Usually because the participants have "no understanding" about each other, they lack a unified understanding on each other's experience, participation rules, professional vocabulary and their own positioning. Taking the "reference image" as an example, it is the most commonly used design tool, but it is unfamiliar to the residents. Those "reference images" selected by designers often brought some misunderstandings, especially for those elderly people, it is very hard for them to establish a link between the reference images and final design results. They thought the final design results would be just that. At this time, it is necessary for both designers and users, to seek adequate explanations and demonstrations to understand each other's and experience each other's feelings via some tools (Table 4.4).

Table 4.4　Miss understanding in the process of participation

1-05-11: When we started to divide into groups, disorder came into being. We didn't know which group we should belong to.

4-01-10: We distributed the intention map to each resident. Several team members who proposed the design for the sunshine room looked at the schematic diagram and began to discuss it with each other. After a few simple words, the intention map was closed. They said, "there seems to be nothing (for reference)", and then began to write to express opinions.

4.4.3 Collaborate

Collaboration refers to the participation mode in which participants have division of labor and cooperation in different stages of the design process. If the entire design process is compared to a chain, then each participant assumes different roles and performs different functions on the chain. The user's initiative is not only reflected in participating in the design process, but becoming a part of the design solution, with a more proactive state. Participants collaborate in community through two aspects:

1. Personal advantage capital

As an intangible asset, personal advantage capital is one of the main contents of participatory input into design collaboration.

In the collaborative mode, everyone contributes their own skills to promote better use of community public affairs. Personal assets such as skills, wisdom, and time are integrated into

the local community, which strengthens the local collective community assets and brings a

certain degree of internal growth. In this way, community members realize the transformation

from mere consumers to resource providers and creators, and realize the role of linking

community members' emotions and accumulating community capital while exerting the main

value.

2. Crowd funding

As a tangible asset, funds appear in the implementation stage of participatory design in

the form of crowdfunding or matching. The mode of crowdfunding refers to crowdfunding to

support the actions of individuals or organizations initiated. In Pujin Street, Minhang, Shanghai,

there was a case where residents successfully crowdfunded a green trail renovation through the

like platform[3]. In the Youhe project, multiple sources such as community reward funds, cultural

and broadcasting funds, and street autonomy funds were also crowdfunded to realize the project.

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[3] There was a muddy "path" in the green belt near Carrefour Station, Pujin Street, Minhang District, Shanghai. This "path" was formed over time because pedestrians cut through the green belt directly. Now, the vegetation on this "path" has gradually receded, leaving only the soil exposed. Meanwhile, Shanghai is located in the south and therefore is always wet and rainy. There were safety risk for the residents to walk on this path in rainy days. Mr. Xu, a retired teacher living in this community, believed that the reconstruction of this path could make the travel of the community residents more convenient and bring new vitality to this "nobody cared" area. The "Harmony" Path Project of Pujin street was released through the website of Dianzan, receiving a total of 10815 likes and nearly 60,000 RMB to support the project.

The mode of matching funds mostly appears between the government and community members, and they jointly complete the fund raising with a certain proportion of the relationship.

The collaborative behavior embodies the transition from "problem-demand orientation" to "advantage-capital orientation". Each community has its own problems as well as its own resources. McKnight believes that community construction based on "assets/advantages" should not use a "demand lens", but should focus on, insight, and use the community assets or capacity available in urban communities. In this way, the community's skills, abilities, wealth, assets, potential, advantages, etc. will gradually emerge, enriching the community's asset map.

4.4.4 Mutual Benefit

When participation continues to occur and community building has reached a certain stage, the phenomenon of "mutual benefit" will appear among participants (Table 4.6). This reciprocal behavior means that design as a kind of capital exchange, which is also a characteristic of Chinese society. As a kind of participation, reciprocity is more about the emotional investment of both parties.

According to the data in Table 4.5, it can be found that there are two main types of reciprocal behavior in the process of participatory design. One is the mutual benefit between the designer and the user. The residents of the community regard design as a kind of capital that benefits the community and are grateful, so they give back as much as they can. In a conversation between the author and Wu Nan, who is a community builder in Nanjing, he said that "Doing the work of community building is actually to use the time in your life for the community, and the rewards you get are used to build your own life. It is to create economic activities between oneself and the community." Wu Nan's understanding reflects the accumulation of social capital brought about by community building work for community workers or designers.

The other is the user's feedback to the community itself through the collective participation process of participatory design, such as the behavior of buying milk tea by young mothers in the school. As community users, they have not directly invested in the design, but the investment and dedication outside the design means the recognition of the community, and the positive diffusion of this kind of emotion is very important for the construction of the community. Community participation has produced positive social interaction.

In these two reciprocity models, the author believes that the latter mode is more satisfactory. The first kind of mutual benefit between the designer and the user is temporary and short-lived. It disappears with the withdrawal of the designer or the departure of the community users who provide benefits. The reciprocal behavior among community residents stimulated by the participatory design process is the beginning of the establishment of community reciprocity norms and a window for residents to build social capital. Community participation contributes to the generation of universal reciprocity norms. Community reciprocity norms increase the social capital of the community, promote the important role of connecting community residents and maintaining the order of community public life.

When this reciprocal behavior occurs to a certain stage, it can produce reciprocal behavior based on the community economy. Reciprocity is not to obtain direct economic benefits, but to create social connections and cooperation. Neighboring members of the community carry out peer-to-peer exchanges to realize a new community economic model, and in an optimized way of resource allocation, various unconnected economic components in the community are transformed into a community of interests. In the future, there can be exchange behaviors in the community, such as nurturing families, volunteering, helping others solve difficulties,

organizing public activities, and providing emotional support for others, so as to solve social

problems while realizing the social values of social members.

Table 4.5 Action of mutual benefit

2-01-09: On the day of corridor implementation, Mrs. Jiang brought us in and strongly asked us to receive a bag with two beaded dolls as her gifts to us.

4.4.5 Diverge

In addition to the above four modes of behavior interaction, there are also divergences

caused by different reasons during the process of participatory design. Divergences are

"confrontations caused by two or more people's different wishes" (Table 4.6).

Different participants have different perspectives, positions and interpretations on the

same plan, which will lead to divergence. For instance, in the project of Open Your Space of

Siping Community, students proposed a plan of interactive chess, placing a chessboard on the

public wall for the elderly to play chess. The designer believed it is feasible. While the

community leaders believed that "this is a very ideal plan, but perhaps residents will take away

the chess pieces, bring them home and sell them. And it's not the problem of Siping residents,

but the floating population." So they proposed "to make a 3D drawing of chess pieces", but the

researchers rejected it because the drawing method was believed to be not attractive to the users

and similar 3D drawing was already common to see and lacked innovation. The staff in community activity center interpreted it from another angle, "We encourage everyone to play chess in the activity center. If you specially make this chessboard outside, it seems to be encouraging everyone to play chess outside, which is not very appropriate."

Hence, for a seemingly simple design method, different stakeholders will think from different angle and have different opinions. What the designers wanted is an open, interactive and participatory public life, but as managers said, there were many practical problems especially in safety and management. At the end, the student designer adjusted the chess pieces, which is able to move but could not be taken away. However, the chess pieces were damaged in a short period of time.

Divergences occurred not only in plan design, but also in participatory process. For example, when the designer directly adopted design research tools to " assign" some "design tasks" to the participants, the they were essentially resistant but may reluctantly accept them because of their kindness, however the results of the research was not good. In one case of a workshop held at Tongji University and the community, the method of [4]"Culture Probes" was

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4 Cultural probe is a way to do research in the design process, by which the researchers could collect data

adopted by the students and the residents were asked to shoot their own life clips for three

consecutive days. In fact, most residents felt[5]"puzzled".

Table 4.6 Divergences among participants

2-01-06: In Hejiahuan, the residents were asked to claim the corridor area they are respectively responsible for, such as someone was responsible for closing the public security door, someone was responsible for rubbish treatment. People believed this method was quite strange and may not have any substantial effect, so they completed the work without knowing why.

5-01-06: We hoped residents could draw the axis of their daily life so that we can find some rules for the use of public space. In the process of filling in, several aunts felt that this step was a bit strange, and they expressed their objections noisily, believing that daily life is not necessarily regular.

4-01-08: At this phase, people were actively involved, but the secretary of the owners' committee kept whispering to others. The researchers kept reminding everyone to listen and not to whisper without permission. Peter smiled and said with a slight sarcasm, "Don't treat us like primary school students. You require us to go to school hand in hand as if we were children. Then we'll just say what we want to say separately."

Similar conflicts of opinions were common to see in the process of participation. However,

the process of mediation is also a process of building the sense of community, because

everyone found each other considering how to make these new things more creative and down-

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about the life, thoughts, etc. of a particular group. More details see:
https://www.zcool.com.cn/work/ZNjYyOTExNg==.html

    5 See Appendix: Interviews with Participants, Interviews with the Author and the Researchers of A Reconstruction Case of Warm Cabin Community.

to earth in the community. These "disagreements" also become "topics" among people after the event, and narrowed the gap between each other. From this perspective, divergence is also positive. When participants debate, talk, negotiate or conflict on a concerned topic of the community, it means that a "group" concerning about the community is slowly forming.

Participatory design process brings about substantial intersection among residents, amongst which empowerment, crowd funding, understanding, gifting and divergence are often interwoven in the design activity and woven into an action network among stakeholders. Because of these actions, more attention could be paid from a design perspective to how to consciously present and promote the occurrence of these behaviors, so as to accelerate the communication of communities and the establishment of a sense of community.

4.5 Social Outputs from Participatory Design

4.5.1 Community Interactions

The increased community interaction is reflected in the more frequent interaction between internal participants, who will have many "unexpected" interactions besides each scheduled meeting, for example, children residents actively left messages for designers, residents provide snacks to student designers, etc. This kind of interaction originally caused by public affairs will

also enter into the category of private affairs. For example, at the opening ceremony of Y Green

Station, Mr. Li, an enthusiastic aunt, talked with the author for a long time about her daughter's

marriage, and actively expressed her hope that the author would use his "circle of friends" to

find suitable candidate for his daughter.

In addition to the increased interaction between internal members, the community as a

whole has more contacts with the outside world. At the beginning of each community building

project, its stakeholders are not very clear. With the gradual development of the project, more

people are involved in and the community network is under gradual expansion. For example,

in the action of Open Your Space by Siping community, the design team and the government

were the first two actors, gradually attracting sociologists, architects, artists and designers who

were interested in community renewal to build the same physical community space from

various angles in their respective ways. Visualized tools and spread via WeChat helped the

total number of visitors to the project reach more than 10000, and also attracted the attention

of Public Welfare Fund of Lujiazui Community in the process of dissemination for further

cooperation.

Therefore, production of community not only finds people with common needs and values within the original region to form local communities, but also includes the introduction of relevant external resources to support and strengthen local communities. In this process, a new cross-regional community also takes shape. It is the process of breaking up the original community and reorganizing a new one.

4.5.2 Community Consensus

Consensus is a common vision that integrated by people with their different visions of space. Residents have some abstract concepts about the built environment, such as neatness, cleanness, beauty and modernity, but they do not have some concrete images in their minds. What the designer undertakes is to translate these feelings into some concrete design plans.

The benefit of participatory design process is that it can provide a collective rational analysis process for reaching an agreement. Through analysis, debate and thinking, the agreement emerges little by little, approaching the essence of the problem and relying on written records to form community regulations. In the discussion about garbage dumping at Y Green Station, community participants experienced from "complaining about the bad environment in the area of garbage compression", "consulting the property management about

the cost of collecting and transporting construction waste", " discovering the contradiction between the time and cost of collecting and transporting construction waste" to final formulation of a new rule of "transporting when it is over five tons or over two weeks", which is a process of analyzing, sorting and thinking about solutions relying on collective strength.

4.5.3 Community Rules

Once agreed, the establishment of rules becomes more important. Community rules are the criteria for the existence of a community. In the past, "tradition" is always mentioned by people as the default rule of a community, such as regular celebrations, collective activities, etc.

Rules include short-term rules and long-term rules. Short-term rules are temporary single-time rules in each meeting, taking the participatory workshop for example, people arrived at the time appointed, and the principles of "Robert Ritual Rules" or "Brainstorming" were followed. These external rules brought by professionals broken the "no rules" or "hidden rules" of the community itself.

Long-term rules play a more important role in shaping the characteristics of a community. The space itself brings about rules, for example, people regularly use the space according to

certain regulations, or 89 residents in Lane 89 regularly gather and chat each night in the space created by everyone's brainstorming, forming soft rules for space using. This kind of space plays a role of public field like "teahouse" or "cafe" in Habermas's works. Others are scheduled, such as the holding of community school in Eaton apartment, or the new property management regulations of "transporting when it is over five tons or over two weeks" at Y Green Station. This regulation rewrites the top-down rules, forms the rules that are more recognized by the community based on the situation of that community, and shapes a more localized community.

4.6   Participatory Design Reconfigures Community Mode

In the last two sections, the author analyzed five behavioral patterns involved in the participatory design process and the three design outputs. From this process, the author found that participatory design as a social interaction process is not only a role as a design tool to stimulate community participation, but more importantly, it exists for the differential mode in the Chinese mainland community. This kind of reconstruction is reflected in the breaking of the existing differential mode and the establishment of a community pattern with a group pattern, which is reflected in the following aspects:

1. Change the maintenance mechanism of the differential mode

The maintenance mechanism of the differential mode mainly relies on four mechanisms:

ethical norms, resource allocation, reward and punishment mechanisms, and social mobility.

In this process, people are shaped into "differential personality", and the individual constantly

defines his position, role, and meaning of existence based on his relationship with the other

through a network of crocheted relationships.

In the process of community building, when the participatory design intervention, it has

had a certain impact on the original four maintenance mechanisms, and the impact has reshaped

the new community. Community consensus and rules developed in participatory design replace

ethical norms; resource allocation is no longer only flowing between big people and small

groups, but spreads to more general categories; reward and punishment mechanisms no longer

follow superiors to subordinates Rules, but from the pleasure of participation in the spiritual

level and the accumulation of social capital.

2. Optimize the social resource allocation model

Reflecting the "difference pattern" of the way resources are allocated, it highlights the

basic position of blood and geography in social relations. In the current new "differential mode",

interest has also become a new resource allocation factor. Therefore, in the pattern of

differential mode, when community members need to obtain more resources to meet the development of individuals, they must rely on blood relationship, geographical relationship or interest relationship. The resource allocation in this mode is likely to cause unfair distribution of public resources, making another part of the people marginal.

As Friedmann believes, the public interest is ultimately not endowed, it can only be generated and changed in the process of participation. Participatory design provides a more open framework for shared participation. When users have the enthusiasm to participate in community affairs or have the ability to serve a community, they have the opportunity to enter the community circle and be more free to express their opinions and participate in. Therefore, the relationship circle is no longer a threshold for community members to enter the public discourse system, and the influence of the hierarchical order on the lower-level population is relatively weak. It is the participation motivation, ability, enthusiasm and action of community members to help individuals achieve their public interest.

In addition to the open participation platform that participatory design can provide, Internet-based participation also breaks the time and space limitations of the differential mode. Through social media, participants form decentralized and de-hierarchical communication, and

people from different circles have the relative equal opportunity to express their opinions. The author believes that participatory design breaks the circle of the differential mode by building an open participation platform and pushing the community mode into a more flat community structure.

3. Establish a new type of social trust relationship based on rules

The credit of the local society is not the emphasis on the contract, but on the reliability of the rules of a behavior familiar to the unquestioned. Since the reform and opening up, the rural China has moved from an acquaintance society to an anonymous society, destroying the logic of the generation of social capital and social trust in this structure, resulting in a decline in social trust. Zheng (2015) also claimed that Chinese people's trust has never surpassed the family category, which is the restriction brought by the differential mode.

The participatory design approach forms community consensus and rules by advocating the community, integrating the vision, and providing participants with a platform for rational thinking and public debate. The conscious breakthrough in the trust of Chinese society remains at the dilemma of family trust. By constructing community trust relationships, individuals or groups have created new social intermediaries because of social networks, reciprocal norms

and the resulting trust, which can solve the problem of atomization of modern urban

communities to a certain extent.

In this new type of community based on rules and trust, members have a certain common

identity and share common community development goals. Joining such a new type of group

means that members can get their own What is needed, but through the "differential mode",

the primary social relationship cannot provide the resources to resist the inequality caused by

the excessive concentration of public facilities and resources. This community has tended to

be characterized by Western "group patterns", with members having equal relationships and

public life around certain pre-agreed rules and contracts.

4. Cultivate community middle organizations

The participatory design process has inspired the establishment of various community

self-organizations. Social organizations, especially various types of civil organizations as the

members of the social organization and the norms of behavioral norms and social interaction

platforms, are the brewing workshops of social trust and cooperation. Various social

organizations are the main carriers for the existence of social capital. Encouraging and

cultivating various types of social organizations and social groups can fully cultivate social

trust and create social capital. Through the participatory design process to find community

reach, connect community resources, establish community rules, can precipitate social capital,

and help foster new social trust relationships.

From the perspective of social relations between individuals, rural communities

experience "the transformation of acquaintance society" to "subject-free acquaintance society",

while urban communities are considered by most people to be "unfamiliar strangers" before

they are connected in series. Human society." On the one hand, we regret the disappearance of

acquaintance society, on the other hand, we also yearn for the privacy of urban life. A

community built through participatory design does not mean returning to the local community

of acquaintances. Instead, it creates a platform for participation and collaboration, empowering

community users to create a good lifestyle together, and people have the power to come.

Choose the distance between each other.

In summary, participatory design refactors the urban community landscape, bringing

about a transition from circle to fold, level to flat, and tradition to modernity.

4.7 Deconstruct and Reconstruction of Community Mode: The Impact of Participatory Design

In the mode of differential mode, when a person who is far away from the core figure want to get close to a person with great power to get more resources to meet the needs of individual's development, he/she needs to "seek favor" to put some other people at marginal status. In the process of participatory design, the method to get close to the core circle is not limited to "seek favor", as any user who has the enthusiasm to participate in community affairs or has the competence in serving the community can be regarded as a resource for getting close to the core figure and form a relationship network. Participant design, to a certain extent, breaks up the differential mode and presents a more flat social relationship and community structure, reorganizing in the two aspects:

The first is restructuring relationship. Social capital building is more demanded in some low-income communities. In the past, for the significant effects of hierarchy, for example, getting access to a professor is impossible for common people. Nowadays, the circle layers have been broken by the Internet, which leads to a flat community structure. As a matter of fact, individuals from different circle layers gather at a same place in open space or technology

guidance, and original people affected via different aspects gather for a same direction, calling…

The second is restructuring resources. For the increase of social capital in the participatory design process, trust between individuals or groups resulted from social network and reciprocal norms are resources for people in their positions in social structure.

Reconstructed community is featured by unity in diversity. With a certain common identity and same community development goal, people join a new community as a new group, implying that members can get access to needed resources, which cannot be supplied by differential mode, a primary social relation. The feature tending to the Western "group pattern" indicates that members are equal to each other.

4.8   Summary

Participatory design, which takes place in community, cannot circumvent the impact of community. This chapter explores the application of participatory design in urban communities in China and analyzes how differential mode, the most classic social relationship of China, interacts with participatory design. Despite housing is commoditized, the style of differential mode is inevitable for users in public affairs outside their commoditized houses or collective

action of co-creation. The author identifies the impact of rural society on urban community, and differential mode, the most essential structural concept of rural community, has reinforcing and suppressing effects on community participatory design; on the other hand, participatory design breaks up the hierarchy in differential mode and reconstructs community in terms of concept and order.

The philosophical foundation of "populistism" behind participatory design is unaccustomed to an urban community full of rural society style and particularity of order. However, such discomfort is just a stage, which can be dissolved gradually by breaking up and reorganizing the differential mode of community via participatory design.

In the beginning of Chapter 1, the author has proposed a goal to explore the full picture of participatory community building, not just a collaborative design event, but a truly complete and effective participatory design process. In essence, community building is a bottom-up action. The participants should be resident users, and we designers or other professionals are advocates and facilitators. Therefore, for designers, one of their work is to stimulate the participation and motivate collective actions by transforming individual thinking and doing into a group of people. One of the purpose of design research is to explore the

dynamic mechanisms, implementation paths, and methodological tools that make this transformation happen. Thus, in this section, the author reveals the essence of participatory design for community building. How this design approach works on community building will be also discussed, as well as on which key touch points it works, so as to further consider about how these touch points could be designed and presented in a better way towards an effective community participation.

Chapter 5: Strategies for Enhancing the applicability of Participatory Design and Implications to Design Major

5.1   Localization of Participatory Design in Mainland China

████ Design Implications from "Community Differential Mode"

In chapter four, five aspects of community differential mode in mainland China has been summarized. According to each, we need to consider how to adjust participatory design.

Responding to the phenomenon of "rural flavor" and its impact (see 4.2.1), when designers and users develop design ideas together, they often focus on conceptions, aesthetics and functions, overlooking the hidden cultural factors. Therefore, designers need to respect the local consciousness of urban community residents, guide users to express their cultural taboos and preferences from multiple dimensions to avoid deviations between design intent and user preferences.

To cope with the "flexible home" phenomenon and its impact (see 4.2.2), designers need to find a reasonable balance between the individual needs of each home and the public needs

of the community to create a public vision , through attractive storytelling to nudge urban residents to have sufficient willingness to extend the category of home to the community space.

To cope with the phenomenon of "relationship circles" (see 4.2.3) and its impact, designers need to realize existing circles in the community, so that they can be trusted by community leaders or have good community relations. Community volunteers guide designers into the community, we should recognize that trust is the essence of the community's "entry ticket", and build trust with the community through some strategies, such as community gatherings and festivals, thus, the community building process can be visualized and archived in a timely manner to the community, let the community participate in cognitive commitment and feedback; allocate some reasonable to the participants, build trust through empowerment, and so on. Establishing a trust relationship between participants is a more effective start, and the subsequent follow-up participatory design will be smoother. When trust is established, it can pave the way for more discussions and consensus, and stimulate the active intention of participation and communication.

To cope with the "hierarchical order" phenomenon and its impact (see 4.2.4) , designers need to take into account the existing hierarchical order after entering a community as a third

party. If participatory design blindly breaks the original rules of the community, it may be too "incompatible" with the original community and cannot be implemented smoothly. At the same time, it plays the role of community leaders of higher-level people to capture community information and drive participation.

In response to the phenomenon of "suspension of public morals" and its impact (see 4.2.5), designers must affirm the public participation status of community residents and pay attention to the establishment and dissemination of a public moral system.

███ Strength the Re-configuration of Community

From the previous study, the author pointed out that participatory design also has an impact of community mode. Therefore, we can also think about how to enhance these impacts and boost the process of community mode re-configuration so that the mode of community could be more open, reasonable and democratic.

First, from the perspective of the excitation of behavior patterns, we can use the excitation strategy to promote the occurrence of these five behavior patterns for the five behavior patterns that occur in participatory design. Specifically, by providing a community platform where everyone can speak up, giving community members a reasonable participation identity,

balancing the legitimate interests of multiple members, popularizing and cultivating design capabilities to achieve empowerment and empowerment; by providing a platform that can promote designers and use To achieve understanding, tools can include simplification and visualization of design conditions and intentions, community walks, role-playing, etc.; collaboration is achieved by clarifying collaboration content and expressing encouragement and affirmation to collaborators; encouraging community members and promote the evolution of decentralized reciprocal behaviors to reciprocal norms, and guide the development of community economy and increase of community capital; designers should have an accepting and tolerant attitude towards the "differences" in the participatory design process, and remain relatively neutral if necessary, you can seek the help of other informal communication channels.

Secondly, after understanding the three social design results that participatory design can bring, we can further think about how the design results can be guided and strengthened. In terms of community interaction, the involvement of participatory design has brought into play its bridging relationship between members within the community or between members inside and outside the community, connecting some originally scattered resources in series, and also making up for community members, community and external Information asymmetry between

resources. This kind of relationship is called "structural hole" in sociology-emphasizing that the structural hole in the interpersonal network can bring information and other resource advantages to organizations and individuals in this position. Participatory design organizations can consciously use their information advantages as structural holes, and at the same time seek out community members with the characteristics of "structural holes", so that they can also play a role as a community bridge. In terms of reaching community consensus, play the public communication value of design, and promote the form of consensus by enhancing the experience of each touch point (space and service platform, etc.); in terms of community rules, add key institutional design to participatory design , cooperate with the community to establish local rules to enhance the recognition and localization of the community.

5.2   General Localization Strategies of Participatory Design

5.2.1 Dynamic

Before entering the community, designers often have some "preplans" for participatory design, such as the need to form a grassroots autonomous organization or to run several workshops. These ideas come from their past work experience or customary means. However, this thesis has pointed out that in the process of community building, there is a dynamic two-

way relationship between participatory design and community structure. When the designer really enters the community, the envisioned solution must be reconfigured based on real community resources, relationship circles, and family needs, and gradually updated to become a local-friendly participatory design. In other words, not only the "design process" is engageable, but more importantly, the "participation approach" design process needs to be opened. One of the characteristics of Sabiescu's community-centric participatory design is the reconfiguration of design spaces, tools, and work methods. In fact, community-centered participatory design needs to consider the reconfiguration elements beyond the material factors mentioned by Sabiescu, including the reconfiguration of community resources, assets and needs.

This reconfiguration process also needs to be applied to the concept of a participatory design approach. Designers and community members need to discuss how they should work together and design together before designing a space or vision. For designers, with the original participatory design methods and solutions into the community, the process of participatory design needs to be treated in a completely open and dynamic state of mind until a consensus is reached with the community.

5.2.2 Transform

The participatory design approach is a design philosophy that respects the differences between communities. Considering the application of the method in localization is also a means to respect the multiculturalism of each place and avoid homogenization. Participatory design is applied to the community, and it is hoped that it will create the personality of each community, realize the work of revitalizing the cultural elements in the local, and guarantee the local identity and local characteristics.

Current applicability and localized application scenarios occur mostly in the cross-border use of software, pointing to how the user interface and supporting documentation of a software product can be transformed from one country of origin to another, adapting it to a foreign language and culture. the process of. In the localization application of software, the process of localization is mainly based on the steps of translation, testing, application, and iteration. We may wish to consider the local translation of participatory design methods with the concept of "translating" of software localization. The author believes that in the process of participatory design, it is necessary to establish a "translating" thinking mode and action plan. It can mainly include the conversion and translation of three aspects:

1. Translate communication language

In the case of participatory design, the same language is the medium between people and people. First-line community designers often have such experience, one or two "local words" can break the gap between strangers and quickly pull into the relationship. The practice of two different languages often makes the conversation very "living" and creates an alienation in identity. This is particularly evident in the Shanghai area where Shanghai-language recognition is important. Therefore, it is a good preparation for the designer to understand the language of the community before entering the community. For those who don't speak local, they can learn a few local words to eliminate the sense of distance, or invite a community resident to act as their own translator.

2. Translate design terms

As mentioned before, the impression that a community user or other third party has on the design is what an "expert" can do. Designers need to consciously "personalize" the design terminology. In community design, the proper nouns involved include color matching, moving lines, shadows, furnishings, and various materials. Designers can use the model and physical aids to explain in more general language.

3. Translate design requirements

Participatory design is the design process for finding balance points among multi-stakeholders. Taking the Chinese mainland community as an example, it has the characteristics of the difference pattern of family and circle. It is a social network that is dispersed outside the family and the family. Designers can try to translate the public needs of some communities into more family-based needs, setting a demand point in the middle of the "home" and "community" in the differential mode. For example, the completion and promotion of community gardens can be transformed into the health and well-being needs of community residents; the promotion of community waste classification can be transformed into the need for community students to establish environmental awareness and develop social responsibility. Each specific community building process requires designers to find a balance between the "home" and the "community" that both stimulates family participation and the public interest. Under the social conditions of other community patterns, other translation methods related to needs can be derived.

5.2.3 Progressive

From the perspective of a large public participation environment, the community in mainland China has been developed late. Whether it is the improvement of aesthetic consciousness or the establishment of civic spirit, it is not a matter of overnight. Designers

need to have the mentality of accompanying the community to grow, with a gradual and time-based model to drive participation and design innovation. The author believes that the "progressive" principle can be implemented from the following two dimensions:

1. Starting from the participation model that the community is good at

In the first part of the participatory design, the participants usually first responded to the fear of "doing nothing". We can take a different position and use content that community users are good at as a way to participate, such as simple collages, assembly, squatting, and more. After the users gradually realized the fun of participation, they were accustomed to the existence of participation, and then gradually communicated with the content of the design. In this way, no matter which age group of participants, they can quickly take off the "can't do" fear of the coat, gradually relieve themselves as "non-professional heart defense" and integrate into the planning and design participation process. In this way, planning and design is no longer just a "professional matter" for the so-called professional, but a "side thing" that the general community can also participate in.

2. Start with building trust

The community difference pattern tells us that a circle of trust and stability is conducive to the "entry" of participatory design. The author believes that establishing trust and collaboration between participants is a more effective start than the task of rapidly engaging in participatory design. After the establishment of trust, we can lay a more consensus for everyone and stimulate the willingness to participate and communicate. Building trust includes finding trusted community leaders or community volunteers with good community relationships to help designers enter the community; visualizing and archiving community-building processes as much as possible, presenting them to the community in a timely manner, and making community participants feel promised and Feedback; assign some functions to participants reasonably and build trust through empowerment.

5.3 Implications to Design Major

5.3.1 Changes of Design Value

The traditional projects of community design spend most time and energy on computer drawings after simple user survey, which is relatively separated from the actual state of daily life and people in the community, so the results achieved may not be optimal. With the same investment of time and energy, participatory community building pays more attention to the

interaction with the community (Figure 5.1). Either a small talk or an interactive community can bring closer the distance between designers and users, and hence create more emotional ties. Under this circumstances, collecting community opinions and obtaining community support could be achieved easily. Community capital found in this process, including cultural assets and talent resources of the community, could also be beneficial to operation and maintenance in later stage. Therefore, on the whole, participatory community building can bring more value and welfare to the community, and at the same time, it enlarges the value of the design itself (Figure 5.1). In the eyes of the author, the essence of participatory community building is a kind of local innovation, and it is nearly the same with Anna's understanding of social innovation with participation as its core, that is, innovation driven by real needs, resources, principles and abilities (Manzini & Meroni, 2014). One feature of innovation is to create more added value.
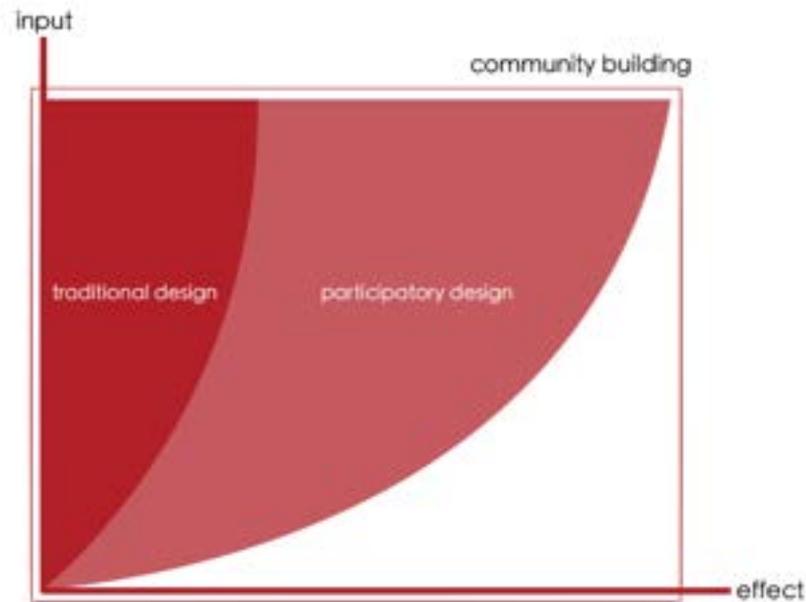
Figure 5.1 Input-effect value curve of two design modes in the category of community building (illustrated by author)

5.3.2 Changes of Design Process

According to the difference of value curves created by traditional design and participatory design in community building summarized in last section, we can find that participatory design brings more added value to community building, especially in terms of social interaction that gives birth to community. With the value changes, changes also happen to the design process.

First of all, the focus of the design task needs to shift from creating concept drawings to community exploration and joint planning of early stage, that is, search phase and plan phase in SPAR. In these two stages, investment in design time and manpower is needed to guide the design team and obtain real community impression and real user needs through non-

participation observations, user diaries, informal interviews, community simulations and other tools. "Truth" is an important principle hidden behind the representation. A simple look and listen may not catch the essential problems. Just like the case of Y Green Station, real causes of public problems need to be discovered via painstaking investigations to finally propose solutions. and proposing a solution. Relatively speaking, design expression and drawing creation can be handed over to the design draftsmen.

5.3.3 Changes of design working place

Participatory design requires that intellectuals and entrepreneurs should have more field spirit (Luo, 2010). The field spirit requires designers to be on-site or on-site to transfer more design work between computer workstations and models to the community (Figure 5.2). The scene of the community includes the homes of community residents, community activity centers, informal places where residents often gather, neighborhood committee offices, streets and alleys, community squares, and some temporarily created public areas such as community markets, pop-up action sites, and community open day etc.

Designers not only need to be stationed at the site for perception, observation, research and collection of information, but also have the ability and means to invite users to visit the site together, discuss design concepts, divide functional areas, and conduct simulation tests.

The significance of the transformation of design work is to help designers better obtain real community impressions and real user needs. All needs, resources and solutions come from the joint participation with the community. The importance and necessity of this part of the work far exceeds the drawing itself. They should also be included in the design results, and the time and energy invested should also be included in the cost, becoming a new standard for measuring design investment. Designers can record the results of this part of work by recording images and writing field diaries. This part of work is not only a source of design materials, but can also become vivid and precious anthropological materials. From this perspective, designers have the professional characteristics of social workers or anthropologists.
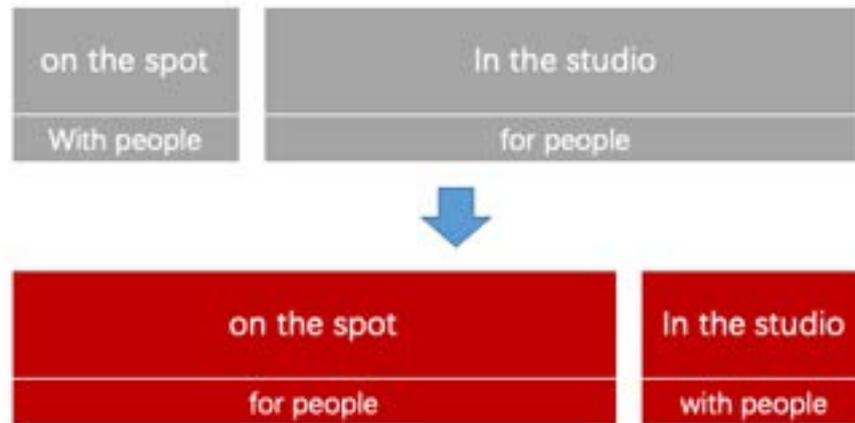
Figure 5.2 Change of Design working place (illustrated by author)

5.3.4 Changes of Design Objects

Yamazaki Ryo once said that community design is the design to connect the interpersonal network. This indicates the change of design objects in community building. The design of community relations is a new and important design object. When people do not find a reasonable reason to gather together, they will still encounter many problems in the process of operation and use even if space design has taken a lot of effort, . This is particularly obvious in community space, because the public space in the community is the material carrier for local users with common interests and hobbies. How could the space vitality could be ensured without either rigid rules or stimulation of consumption? Therefore, the object of participatory design has gone far beyond the material design level, and it involves more in considering about how design can cooperate with a participation, endow reasonable reasons and dynamic systems

to participation, and make the design thinking and ability transfer to the public to realize internal innovation. Based on this understanding of the differential order pattern in urban communities, the following factors need to be considered for the change of design objects.

In the first, as to how to assist participation, in mainland communities with a pattern of differential order, comparing with a grand collective vision. the needs and interests originating from individuals and families can stimulate a high degree of participation and people's sense of acquisition. For instance, in the case of health care and children's education, individualized needs or interests could be used as link points to avoid indifference or avoidance of public affairs due to the blurring of family and community boundaries.

Secondly, influenced by the differential order pattern, people often temporarily construct a network of relationships based on ingroup when dealing with public affairs. As the outsiders, designers need to be sensitive to the situation and can temporarily organize a community participation network with people. Designers need to deal with the relationship between the front stage and the back stage.

It is worth mentioning that the above two design activities are mainly carried out at the system level, from the material dimension to the design of "community relations". However,

this does not mean that the design of touch points at non-system level is not important. On the contrary, the quality control of touch point design, including the understanding and design power of material design elements such as "configuration, style and function", is what other disciplines cannot imitate,   which is also one of the core competitiveness of design. The improvement of touch points, such as an interesting activity, an interesting space or some user-friendly interfaces, can bring joy to the participants, increase their excitement of participation and give them a deeper impression. This grasp of design quality is essential for community building.

In the rural culture, the public is the remaining part outside of private space, and the larger the private space, the better(even some private space would be occupied), while the remaining space is meaningless and useless, and the state of the remaining space has nothing to do with people themselves. The Chinese believe that public space other than home is of no value or of no obvious value. It's always found on site that, in the eyes of the users, sporadic and local spaces are "Ok, and it seems nothing needs to be changed". The users relatively lack imagination for space, while design can help them establish a new understanding about that. It will be a spreading process of design values and design aesthetics if the process is realized by

participation of everyone. When it collectively works on some space through a participatory design process, and create new functions, meanings or forms of space, people's inherent impression could be changed, thus boosting more positive national creativity. As a medium, space has positive significance for the formation of community relations.

5.3.5 Changes of Design Tools

The author list common participatory design tools in Section 2.2.3. It is also suggested that in selecting these tools, in addition to the individual's ability factors, group characteristics are also factors that affect the use of tools. The author summarize the four aspects of the rational use of these tools:

1. Reduce the dimension

In the face of community residents who use non-designed languages, drawings and texts sometimes do not play a good role in communication, but instead widen each other. Designers need new design tools to reduce communication barriers. Based on the "gradual" principle of 6.1.3, the author believe that there is a need to "design the dimension reduction" of the tools currently involved in the design. For example, scene collage, intention map design, high/low fidelity design are relatively biased design tools, and for the general resident group still have

difficulty in mastering in a short time. Designers can choose some alternative methods. For example, the vocabulary description of the nature of nature is used instead of the scene collage. Generally speaking, the people of non-professional background are not describing the space first, but the memory of the time of the past, creating the association with the space, and the creation of the event is for the person himself. Influential and meaningful, lead residents to physical visits or play videos to replace intentional maps; and use some cultural elements that are popular, such as playing cards, dialects and so on. In addition, it is necessary to fully demonstrate before using the tool directly.

2. Protect user privacy

There is less privacy among community members in the local acquaintance society, which in some ways brings about a "rebound" of the demand for social space privacy in urban community life. Therefore, when using participatory design tools, consider protecting user privacy. Tools like "cultural probes" that show a person's private life or create a strange feeling to the user need to be carefully considered when applying. In contrast, design tools applied in a collective situation can give community members more security.

3. Create pleasure

All human behavior is for pleasure. In the face of community members in mainland China, this pursuit of pleasure also exists. In the case, the author found that DIY, parties, games, etc. can mobilize the excitement, ritual and pleasure of collective participation, and improve the motivation and quality of follow-up participation. Therefore, the tools of participatory design mobilize the participation of everyone's body and feelings as much as possible, especially the limitations of language, and create the feeling of common presence through multiple forms such as production, cultivation, painting and performance.

4. Respect the original hierarchical order in the community

In participatory design, we often use methods such as brainstorming and Robert's rules of procedure to ensure fairness and effectiveness in collective communication. However, in the differential mode of the Chinese mainland, it is necessary to balance the existence of the original community hierarchy. It is necessary to ensure that the marginalized people also have the opportunity to speak, and also to avoid the core people's resentment and resistance to the temporary loss of "authority".

5.3.6 Changes of Design Bodies

The main body of design is the people who do the design. The author believes that the discussion of the subject and object of design must be clearly defined in the scope of the design.

The author discusses the design body and the preparations that the designers need to make in the participatory design process from the narrow design and the generalized design.

1. In the narrow sense of design, the design subject is a professional designer.

It is impossible for a designer to turn into a complete object. After all, design in a narrow sense is a professional technique. The designer accepted at least four years of vocational training on the design of materials, dimensions, colors, etc. to the application of the design software. Therefore, if the design is understood from a narrow perspective, the designer of professional identity is still the main body of design.

2. Community building as a broad design, the main body of design is the stakeholder community

Community building is a broad design. Among them, community users are the end users. In the community to create the most fundamental principle of "who advocates, who is responsible, and who benefits", since community users are the ultimate use and beneficiary groups, then they should also be the subject of sponsoring and taking responsibility. One of the

main reasons for the lack of participation and insufficient sustainability in the current community is that many designs are in an embarrassing situation of "designer advocates, residents benefit, residents' committees are responsible, and even no one is responsible". Therefore, community users do not understand or even need these designs, and naturally there is no one to claim and no one to be responsible.

At present, it takes a relatively long process for community residents to change from object to subject. In the current situation where the community's sense of autonomy and innovation is relatively scarce, it requires the advocacy of professional external forces. It is not yet ripe for community users to be a design subject. The author believes that at the current stage, the design of the community should be a group of stakeholders. These include designers, community builders, community residents, and other social actors. After such a companion phase, it is possible to transition to the stage of "participating design with community residents as the main body".

In this process, the designer as a professional identity needs to establish the awareness and preparation of "participating design with community residents as the main body". On the one hand, when design is promoted and guided as an external force, designers need to change

the attitude of technical experts, and the positioning of careers is more of a collaborator, communicator and communicator. In order to achieve a certain expected result in a phased manner, it is also necessary to invest in "cultivating" users in the community, such as on-site teaching, community training, and publication reading. After the designer enters the community for a certain period of time, the designer needs to consciously "hide" himself. Because the ideal state is that after the designer "quits" the community, the community is still able to function well. When the user's innovative thinking and design capabilities are improved, the public quality of all aspects of the community naturally increases. This process relies on "practicing" to achieve the transfer of design power. This includes cultivating the creativity of individual citizens; fostering collaborative venues, rules of discussion, and habits of consensus, so that society can learn to share, respect and create.

On the other hand, designers also need to realize that relying solely on design investment is not enough and not comprehensive. Designers must also learn from other community external professional strengths, such as first-line staff, social workers, social planners, etc. .

Moreover, for designers, participatory community building not only needs to be put into individual community practice to "do", but also consciously let the design profession become

the driving force of culture, and create a concept of sharing, equality, and participation in the community. Promote it and finally achieve the situation of empowerment and creating a better life. Designers need to be aware that participatory community building processes are also a process of learning together and educating. Education is not necessarily in a variety of classrooms, and participatory design of the community scene is a better place to educate. Whether it is the cultural communication of rural residents in the countryside in the early years, or the training topics of Professor Xia Zhujiu and Professor Lin Defu in the urban and rural areas of Taiwan, they are doing design education and civic education. In the current urban community, a new educational model that combines good ideas such as design, innovation, creativity, and sustainability with daily life is also needed to promote the establishment of civil society and learning communities, promote the growth of subject personality and subjectivity, and continuously improve life. The quality of growth allows value to be reflected in the community.

5.3.7 Changes of Design Results

In traditional designs, designs often embody a fixed result through a complete set of texts, schemes, and drawings, announcing that "the design is over". Participatory design is a design

process created with the user and is a process of clarity. The design results have the following changes:

1. Design results become open

On the one hand, the content presented by the design is open and not limited to regular text or drawings. The specific form may be a community salon, a community exhibition, or a community party. These are the results of working with the community, not the unilateral decision of the designer. In the poorly-formed mainland of China, community gatherings and gatherings are more esteemed forms that mobilize the positive emotions of their communities. These are also important results of the design.

On the other hand, the end time of the design is open. The establishment of a community requires multiple effective face-to-face interactions to build trust and connections. Therefore, the community construction in a region is short-lived for two or three years and lasts for decades. It is a process of "companion growth". In the process of companionship, the community gradually grasped more ideas and consciousness, which means the end of the design as an external force.

2. Design results become uncertain

Community building is a complex process of stakeholder collaboration. Therefore, the design results may not be exactly what the designer or the government wants, and this uncertainty must exist. Not only in participatory design, the design process that emerges throughout the social innovation process is definitely a dynamic and unpredictable process. Participants need to accept the uncertainty brought about by open participation with a more peaceful and inclusive attitude. This inevitable potential outcome uncertainty needs to be resolved through negotiation.

5.3.8 Changes of Design Abilities

The development of today's society is complex. The most important thing to watch is the social factor. It not only provides context, but also is the most important object of the stakeholders. The intellectual structure, thinking mode and design concept of the designer. And design methods dominate.

The community creates a formal complex process that is intertwined by various social factors. The above-mentioned changes in the design curve, design process, workplace, design object, design tool, design subject, and design result bring certain enlightening significance to design ability and construction of design discipline. After the participatory design introduces

the Chinese mainland community with a distinctly differential mode, it opens a new window for the designer's self-reflection and re-construction.

Yamazaki said that community designers need a kind of "new intelligence." The new intelligence comes from the famous educator Gardner, who believes that "under the value standards of a certain social and cultural environment, individuals need to solve the real problems they encounter or produce to create a certain product. "Capabilities" include "the ability to read the feelings of others", "the ability to listen well to others", "the ability to understand each other's intentions and ideas", "the ability to understand the social framework." Yamazaki believes that these four abilities are the capabilities that a community designer should have.

Ezio believes that community design requires a new set of design skills that promote collaboration between different communities, participate in shared visions and programs, and support members of creative communities. Existing products and services are combined with their partners. Ezio emphasizes the ability to link resources to bridge the platform to create a vision.

Whether it is Yamazaki or Ezio's point of view, it can be seen that the design ability is no longer satisfied with the creation of functions, styling and aesthetics, and more towards the social ability to listen to empathy, link resources, architecture platform, and cooperation and sharing. Based on the aforementioned changes in the seven aspects, the author further elaborated on the design capabilities:

In response to the critical steps of applicability, designers need to pay attention to the design of community relations and foster professional willingness and actions to participate;

In response to the transformation of the design process, designers need to have the ability to build communities, guide and generalize group issues and needs, and have the patience to accompany the community's growth;

In response to workplace changes, designers need to have the spirit of the field and the endurance of the field, cultivate the feeling of working on the spot, be good at listening and recording the voice from the scene and quickly capture the multi-stakeholder logic and appeals;

In response to the transformation of design objects, designers need to have the ability to judge the situation, understand the social framework, and create events and handle complex situations;

In response to the transformation of design tools, designers need to be able to understand the local community culture first, then be able to select and combine the right tools according to the situation, and have the ability to iteratively re-innovate;

Responding to the transformation of the design subject requires the designer to have a non-expert mentality of identity tagging and the ability to publicly communicate and teach people to fish;

In response to the transformation of design results, designers need to have an open mind and accept uncertainty, and be good at summarizing and disseminating social design results.

The above changes in design capabilities have also led us to think about how design education can be complemented. In the book "Architecture, from that day", Toyo Ito criticized the architect as a member of society, but did not have a self-awareness that was linked to the society. Architecture education was outside the real society. He said that some children's programs and suggestions when they were young can reflect a very preliminary community social awareness, but after receiving university training for specialized talents, they gradually forgot this essential thing. This observation leads us to reflect that college-specific college education may not be a good way to shape students' social interests.

The Chinese University Education Institute teaches subdivided professional knowledge and is a typical "Prussian education system". The voice of criticizing "Prussian education" is endless. Through the reflection of the design ability in community construction, the author believes that the sub-disciplinary education is suitable for cultivating design professionals, while the design of community-oriented and social innovation, which emphasizes innovation and life links, emphasizes the need for comprehensive integration.

At present, most of the students in college design colleges are eager to work for design companies and design institutes. Although the students who have contacted the community design think that the design for the community is "fun" and "grounded", there are not many people who will continue to practice in this field. Community designers and community planners have large industry gaps.

In response to the shift in design capabilities, the author proposed three recommendations for design education. First, as a leading design school in China, we can actively create and disseminate more mature and excellent cases as a guide, so that students can feel that the design can fully realize the output of social value and the fun and achievements behind it;

Second, we need to strengthen the ability to strengthen the horizontal structure of T-type talents, including interdisciplinary knowledge and integrated innovation capabilities, and encourage those with higher "social wisdom" to choose careers related to community building.

Third, there is also a need for more support and guidance at the policy level, such as the emphasis on University Social Responsibility (USR), the revision of social responsibility credit regulations, and the establishment of social organizations that encourage community building.

5.4 Summary

In this study, the localization of participatory design approach were considered in two aspects as following:

Firstly, from a specific view of mainland China context, suggestions were proposed based on the feature of "differential community mode". In the detail, on the one hand, the author think about the impacts from this mode; on the other hand, the author think about how to strength the re-configuration of community mode through participatory design approach.

Secondly, based on the discussions of the social structure of China's differential order mode , a set of general localization principles of participatory design responding to local

situations were summarized, in order to review the method in a more general level and provide

references to designers and practitioners in different regions and countries.

In the last, changes of design including its value, process, working place, objects, body,

tools, results and abilities are discussed by author.

Chapter 6: Conclusions, Contributions, Limitations and Future Works

Community building is a process of collective social actions searching for better public life and civic society. Urban space should be the place where people live together, rather than a simple economic machine, a transportation node or a huge building display platform (Whyte,1980). As a small "society", each community is an "island" which could be connected to become a larger one, that is, a better society.

6.1 Conclusions

This study explores the applicability issues of participatory design approach in China urban context. In order to have an authentic understanding of localized applications, the author recorded and analyzed multifil cases of participatory community designs in Shanghai, pointed out that the interrelationship between Chinese "differential mode" culture and participatory design approach. This finding leads to the several localization principles of participatory design . This study summarizes the following research conclusions:

Research question One: What is the interrelationship between participatory design and community?

Research conclusions: The community in the Chinese mainland context has the characteristics of the differential mode, which is embodied in five aspects that are rural flavor, the resilience of family boundary, relationship circle, hierarchy order and absence of social morality. These five aspects result in both enhancements and inhibitions for participatory design approach. This perspective provided a new perspective when we apply participatory design in social context besides information technology.

On the other hand, participatory design achieves non-material design results of community interactions, community consensus, and community rules through the five participatory behaviors which are empowerment, mutual understanding, collaboration, mutual benefit and divergence. They promotes the community mode moving from "differential mode" to toward the "group mode" by updating the community resource allocation model, changing the maintenance mechanism of the differential order structure, and cultivating the social intermediary organization.

Research question Two: How to adapt the participatory design in response to the community differential mode in mainland China?

Based on the interrelationship between community pattern and participatory design, I further discussed the applicability of participatory design with specific suggestions and general principles of "dynamic", "translation" and "progressive". The dynamic principle requires designers to maintain an open mind, starting with the plan of participation in the first and focused on the process rather than merely results; the "translation" principle ask designers to think about the communication language, design terminology and user needs to adapt to customs and preferences in mainland China. The principle of "progressive" requires designers building trust as the beginning point, and gradually promoting participatory design tasks.

6.2 Contributions

Contribution One: Regarding the research objective, this research focuses on the relationship between the participatory design approach and the community mode, and then considers the applicability of this design approach towards urban community building. This new perspective fills the research gap of participatory design in the consideration of local culture structure.

Contribution Two: The research pointed out that participatory design is not a one-way effect to community but a mutual relationship between each. The mode of community structure also has influences to the design approach. The discovery of the binary relationship has certain theoretical innovation significance.

Contribution Three: In regarding of the research process, the practice-based case collection has practical impetus for local community building and enhance the interaction and quality of local public life.

Contribution Four: Based on the research results, on the basis of revealing the interrelationship between participatory design and community, the application principle of participatory design method in Chinese community construction is proposed, and the design requirement is updated accordingly. The scope of design value, design process, working area, design object, design tool, design subject, design result and design ability has deepened and broadened the understanding of design which has certain academic innovation value.

6.3   Limitations

In the first, the coding analysis method is somewhat restricted by the researchers themselves. Therefore, the binary relationship derived from this research is not the only result.

The author reveals the important impact of the differential mode on participatory design and how participatory design counteracts the differential mode. This does not mean that the difference pattern is the only factor that affects the application of participatory design.

Secondly, when exploring the interrelationship between participatory design and community, qualitative methods were mainly used without the support of quantitative data.

Thirdly, every theory of social science is always a "local theory" and it cannot be adapted universally. The field data of this study are mainly limited in Shanghai and have its cultural limitations.

Fourthly, due to the limitation of the research time, each project mentioned has not been involved and tracked by the author for more than three years, and therefore cannot cope with the issue of "non-timeliness" of socialization.

6.4   Future Works

In response to the above research limitations, the author look forward to continue with the following future works:

1. Increase quantitative research method

This thesis takes qualitative research as the research method. Looking into the future, the author hopes that in addition to qualitative observations and analysis, I will introduce quantitative research method so that consider the research from a multiple perspective. To be detail, on the one hand, I will try to collect big data to see the dynamic changes of communities after the adoption of participatory design in community; on the other hand, I will introduce the comparative study to examine more variates which may effected the community.

2. Conduct comparative research in western community contexts

The author hopes to have an opportunity to understand the impact of different community patterns on participatory design applications in western communities, to further explore the academic value of "community mode theory".

3. Explore the impact of participatory design from a longer tense

The projects in this research lasted from one month to one year. The author hopes to have the opportunity to root in a Shanghai community for a longer-term and examine the role of participatory design.

4. Explore the relationship between participatory design and action research

Studies have shown that action research can actively participate in participatory processes to produce positive social changes, often involving cyclical processes of iteration and feedback, such as planning, action, observation, reflection, and planning for subsequent cycles. The author also found in their research and practice that there is a compatible internal relationship between participatory design and action research. In collaborative action research, researchers and locals are always being together. Each participatory design process can extract the action topics jointly studied by the community, and through the practical research of designers and community residents, it can solve the public problems of the community while improving the ability of all people to learn and explore. The author believes that combining design practice with research and exploration may become a participatory solution to public problems.

5. Explore the possibilities of community building from other dimensions

In addition to the way the government or the community buys "third-party" public goods to carry out community building to the community and as a system of solidification, in addition to this approach, further consideration of self-hematopoietic needs. In the future, community building needs to be further linked to concepts such as "local creation" to achieve sustainable economic, ecological and social development.

Appendix A: Interviews

Interview（1）

3rd February, 2015

Venue: To Kwa Wan Story House, Hongfu Street, Hong Kong

Interviewee: Social Worker from Community Culture Concern (CCC)

Author: Will you now the main ways in which community do to create it?

CCC: In To Kwa Wan, we do community building through art and social innovation. We focus on the participatory process and work with the people to plan what they want to live in. We learn about their life and community through some cultural and artistic activities. Some residents' activities will also happen here, such as coming to this meeting.

The Hong Kong Story House in Wan Chai is different from To Kwa Wan. We have to do some research, communicate with the neighborhood, and need to understand the regional characteristics, because the situation in each place is different. There was a project in the middle school where a high school student from an art school in Hong Kong collected waste on the street, such as abandoned furniture, transformed them into different toys, and played them with the children of the residents. These students are all from the new towns, there are no small streets, no small buildings, the surrounding area of the living environment is covered by the subway, they have not come to these more residential areas. We also have a cultural heritage project. There is also a project in Caiyuan Village on the other side of the New Territories. The government wants to set up a high-speed rail and has to remove the village. Now that everyone has moved away, there is a change than before. They can work together to build a new village. This was not there before. This is the vegetable garden village, everyone is doing a "mapping" activity.

This is a relatively long process in general. Now we are here (To Kwa Wan) is the

beginning, just like we were in Wan Chai. Many residents are not clear about what is "reconstruction, they think it is like the media said," the government wants to collect, I will go, see if there is a little compensation to go to another place. They didn't realize that "I am also a part of the region and have the power to advise the government. We have also done some regional newspapers. On urban renewal, some projects are real estate development, and some projects are urban areas. The Bureau of Reconstruction (URA), but the terrible thing is that their property prices are as expensive as those of private development projects. In fact, the change is not bad, reconstruction is not bad, but in many parts of Hong Kong, there are finally luxury houses and even empty units.

We are still working on a community-based project. We are looking for different people in Hong Kong. Some are artists, some are cultural and artistic backgrounds, some are students, and they create different activities here. Through the art and the media to show what they observe, an important element is the art of the neighborhood to participate in the creation. For example, if you see these multicolored braids made of M lines, it is made by an extra M line donated to us by the artist after finishing the work. Local women learn how to prepare together here, and family women watch their children do their homework while chatting with others to learn to weave. This area is originally a factory area, there are many factory women workers, they will make snacks, do women red. This is a melon report, we will update the community regularly.

Author: those enzymes bottle is not it?

CCC: Yes, there is a volunteer, very interested in green life, just do some personal trials here. We will also do a lot of environmentally friendly recycling. Clean enzymes and compost fertilizers can be given to neighbors.

Author: Before you do, Wan Chai, Hong Kong Story House, then why do residents in To Kwa Wan is this requirement, you still active?

CCC: Because we see that To kwa wan is also necessary, we want to find a way of artistic intervention before our own community stories, characteristics, and social networks are still in place before reconstruction. Residents don't have the concept of "community building, so we want to get involved early, which will also benefit future reconstruction efforts.

Author: The best time to community residents and here's the link has not been disconnected but there are some dangerous time.

CCC: It is like this.

Author: In Hong Kong, in addition to the NGO to do so than some of the activities, there is no fixed community organizations, such as neighborhood mainland China?

CCC: There are NGOs in all districts, but they all offer more traditional services, such as youth centers and elderly centers, which are relatively one-off. They also have their own owners, but more about maintenance acquisitions. What really does the integration and linking of residents is mainly that we are doing it. There is also a factory nearby, called the Film Culture Center. They have a roof terrace and some neighborhood plants, all of which are our friendly groups.

Author: I would like to know CCC as an NGO organization, in terms of manpower and funding is how it works?

CCC: In fact, we are facing a shortage of manpower and funds. We usually have a fund for one to two years, but it is not very stable. About the staff, about 2 full-time, very few people. We also want some donations, but not the main ones. I am also trying different funds, but it is not always stable.

Author: How do you do a community survey?

CCC: We are not foreigners who are airborne. When we formed the team, we had some people from this community. For example, the volunteer just lived in this area.

Author: So what are the team of people professional background?

CCC: Actually quite different. St. Accord is a social worker. This year, there are some artists, as well as me in literature and cultural studies.

Author: Residents of art accept it?

CCC: We are not talking about the art of galleries. We want to interact from their participation. Sometimes we don't design a thing for them, but it happens here. We believe in the power of cooperation, like we want Building a village, we don't know about water conservancy projects or environmental planning, we will cooperate with experts and planners, so that they can simplify the more professional knowledge into something that residents can understand.

Interview (2)

Time: 26th June , 2016

Venue: Hong Kong Polytechnic University

Interviewee: Chen Yunzhong, founder of CCC Community Culture Concern Group, Hong Kong University teacher, leading Hong Kong Cultural Conservation and Democracy Movement

Me: What is the difference between you doing participatory community building in Taiwan and Hong Kong?

Chen: Community building began in Taiwan in 1994. It is a "policy, so experts have money, so it is relatively easy to set up. But suppose there is no such thing, there is no big problem. We can start by improving the environment around us. Then our approach in Hong Kong is to chat first, first understand the community, understand what problems this community has, such as narrow roads, residential comfort, etc. The awareness of social workers in Hong Kong is relatively strong, this is not possible in Taiwan. Taiwan is mainly from the

public. Start with space and start with improving the environment.

So, at first, people didn't know what was wrong in life. Let's define a problem together and then determine a project. The project is not done by outsiders, but by several residents, and others slowly join.

Organizations that do a lot of activities, so many people are caught there every time. Therefore, it must be done by outsiders and residents. This time, there are not many residents participating in our exhibition. Although only about one-third of the people in this district are involved, it is a breakthrough.

I am a theoretical person. I hope that through activities, I can create communication opportunities, organize my team, and plan the next event together.

There are many good things in the community that can build community identity. So start with this way and find out more good things.

However, nowadays conservation is combined with social workers, the community has to do conservation, and conservation has to do social work. But in fact, the two are two different logics. So we have to figure out whether to start with assets or start with problems. Nowadays, many social workers are engaged in childcare (probably also the problem of restricted funding). However, it is still very confusing and does not clarify the ideas. Social workers still have to learn from each other.

Me: In the specific participation process, what experience can you introduce to us?

Chen: In fact, it is more to chat with residents. Many people in To Kwa Wan have a lot of good opinions. This is something we can't talk about regularly. Residents also want to invite us to the house, and it is best to have a few people to chat and brainstorm. Hong Kong people always like to ask "Which is the best case? Which is the best way? This" is actually a very commercial language. The situation in each place is different. There is no such thing as the

"best case." I don't think I should be afraid to do the wrong thing. Every place should try. If you are afraid of the mistake, you will not be able to learn it.

Interview (3)

Time: 28th March, 2015

Venue: MAD Convention, Kwai Tsing Theatre, Hong Kong

Respondents: Director of the Community Support Center in Seoul, Korea, and the construction worker of Seongmisan Community, Liu Changyu

A(Author)：Why Seongmisan Village project can be successful?

L：The success is people doing things on consensus. Everybody reach into an agreement by doing things together. So let us do it by the way of A. But someone said，let do it in another way. So what will happen? They cannot do it. Because there is no agreement. Then we do it separately. After it all done, people will say，oh，why don't you tell me before (it is good!)? When you see it done，the comprise become easier. Even though there is different opinion，we become richer. It is not force to be A or B，just different opinion. Diversity will create the richness.

A：What if the resource is limited?

L：We do not do it then. Or we will start in a very small point. Not everybody needs to have the same opinion. Cooperation doesn't mean everyone should have the same idea. It means working together despite having different opinion coming into consensus.

A：Could you share the common problems you have encountered?

L：The biggest problem is about communications. Because all of the people would like to speak，not listen. So play is important. Gossip is important. Not have a formal meeting but chatting is important. In general，woman is good at chatting better than man. Man needs help.

We have the golden ratio of woman and man which is 7(female) to 3 (male).

Another approach is Art. Art is very important to people. That's why people go to dance. Also，if you want to build a community, you have to think about money. It is good to build community asset，so that you can continue to have community business.

A：What kind of community business?

L：For example，pre-school, after-school day center，then school itself. Then consumer co-op，village kitchen，people can come by，eating and taking the food to their home. Now we come to the stage of building our own architect firm to build community co-housing. We start the community business from what we need most， because it is necessary. From village to village， the need will be different.

A：Who can discuss the community issues?

L：We don't really make decision from meetings. If we really want to do something，we will find two or three people half way. Then we find another two or three people with the interest of thirty percent. So we already have five people who are not that passionate but willing to participate. All the projects in my village start from five or less people. What if five people with hundred passionate? Do you think it goes well? No，not really. It really goes complete opposite way. Because they are so passionate about the project. When they have different opinion，they start fight. it is quite ironic. Community building happens when you really want to do something，then you go ahead do it. Don't think you need a lot of people to start the something. You can start with just doing by three people. When there is crisis，we need the participation from all of the people.

A：How do you do community building for people living in high rising building?

L：Apartment structure perceives a very impersonal and non-interactive where people want to but no chance to communicate with their neighborhoods. So more people are skeptical

about if creating such community within those high rise buildings or not. In Seoul，fifty percentage of residential type is those high-rise apartments. I think apartment structure have better choice than else. Because to live in certain type of apartment means they all come from similar income and profession so they can afford such building. They will have similar interests. Also in Korea，in this apartment，community conception is becoming very fashionable and acceptable. They have community center really high concentrate on people in one area. There are good cases in Seoul that apartment have created really good communities.

Appendix B: Field Notes

1. Sustainable community

1-01 The first discussion with neighborhood committee director

Today, two staffs from environmental NGO, Miss H and Miss W, went to conduct the first communication with neighborhood committee director H. The meeting place was in the room of neighborhood committee. <u>The office was just decorated, which appeared to take a lot of time and effort</u>(1-01-01). The picture of neighborhood committee staffs hung on the wall. In the bright meeting room, we saw the secretary of the neighborhood Mrs. Huang. She is around 40 years old and a very kind person. Then, <u>we knew that she is also a deputy of the Shanghai People's Congress due to her excellent capabilities</u>(1-01-02). She showed great zeal to welcome us and said "The experts are coming, so great!"

Then she introduced the basic status of this community to us. <u>She expressed the hope of converting the annoying garbage space into a "scenic spot"</u> (1-01-03). After her introduction, I added, "I hope more residents can participate in the project". Huang smiled and said, "Local Residents are not quite capable. <u>We need more 'experts' like you guys!</u>" (1-01-04).

We visited the two sites which will be renovated in the future. The first site is the garbage classification area under the corridor. It is filled with oil stains and in need of space improvement. The second spot is the focus of project, that is the garbage compression room and surrounding area. We saw the cleaner Mr. Miao who is around 60 years old. He is in charge of cleaning and compressing the garbage. Aunt Chen, his wife, is also a cleaner in the station. We never know the trash compactor before so have no idea how it works. <u>Mr. M turned on the machine and demonstrated the procedure for us about how to move the tricycle into the garbage room, and the range of garbage piles patiently</u> (1-01-05). Mr. Miao told us that trucks will pull away the garbage. The tonnage includes three categories of 6 tons, 8 tons and 10 tons.

We also found many second-hand goods he collected including waste furniture, cans and bottles. <u>In the summer, he sprayed floral water to get rid of the bad smell in the garbage room</u> (1-01-06).

1-02 discuss for the workshop with environmental NGO

Participants: designer Zhu (Z in abbreviation), designer Song (S in abbreviation), social worker Hao (H in abbreviation) and social worker Wei(W in abbreviation)

In the beginning of the discussion, I presented the free-hand sketch to all for further discussion.

Designer Z: When we add a wall in this side we can have a corridor for decoration.

Designer S: This place is related to the topic of garbage classification. We don't need too much decoration but the knowledge of environmental protection and garbage classification is welcomed.

Social worker H: Indeed. So far, we are not clear about the demands of residents. Take this space for example, what do residents want it to become? What are the functions? We have no idea. <u>An important mission in the workshop is to conduct open discussions to get the answer.</u> (1-02-01)

Then we began to discuss how to elaborate this open-ended question.

"In which situation, you may come along here?"

"Good, we can ask people about the public activity they want to participate, and we can design according to their ideas."

Social worker H continued, "what do you want to do in this place? This space is yours, and what do you expect it to become? We need to decide how to express this question. <u>We need a good sentence to clearly express its connotation, so that it seems to attract residents to ask.</u>"

(1-02-02)

Designer Z: We can briefly introduce the functions and limitations of this place to the residents. On this premise, what facilities should be added so that you will come?

Social worker W: for example, the site will revert into a place with recreational and social contact functions. Then, the residents can make their own plans about it.

After reaching consensus about this issue, we focused on activity participation and preservation.

Social worker H: After the space design, how can residents participate in the space preservation and utilization?

Designer Z: You mean compost and planting flowers, right?

Social worker W: But I learned that roof garden is not totally open to the community. Last time, director Huang said she will invite a professional company to take care the roof garden.

Designer Z: So who are the final users on the roof?

Social worker W: We are not sure yet. If two groups are involved in the project, I think there will cause problem. If the company in charge of roof garden providing professional assistance and help, then residents will do nothing about it. In fact, it is not consistent with our original intention of community participation. (1-02-03)

Social worker H: In general, I believe Huang agree with the principle of community participation. Then, we can persuade roof garden designers to accept this idea as well to leave more rights to local people.

Social worker S: Yes. In my mind, the roof garden company will handle the facility maintenance, the property management will in charge of professional plant care, and the resident interest groups will do the daily work such as watering and fertilization.

Basic facility maintenance may handle by roof garden companies. Professional plant care may be handled by property management. Daily participatory care, such as watering and fertilization, is handled by resident interest groups. We will organize a small group of people to take responsibility for their own duties(1-02-04). The mechanism of management will establish in the workshop.

Social worker H: We need to keep some resources to build up the team, so that it won't fail due to the lack of daily management or capital support. (1-02-05)

Then we started to talked about the procedures of the next coming workshop.

Designer Z: So we need to know how to conduct the communication effectively. For example, we show a big site plan to residences. We ask them to add more attractive design elements. As for management, we may set up an initial team and WeChat group for those who would like to take part in. How about we carry out discussion based on different space sections?

Social worker S: Residents may not have a clear concept of each space. They only have a general impression of the overall region.

Designer Z: All right. We can also ask why they don't come to this place? Maybe it's because of the garbage dump.

Designer S: We don't need to say the garbage dump. We just need to show the future scenario with good management.

Social worker W: I agree. We help people to build up an expectation about this place. So we call for everyone to provide a good management.

Social worker H: "Tidy" should be regarded as the precondition. What can we do to keep it clean? First of all, utilization. Then, maintenance and management. We hope to make them think that they can't put things right once and for all.

Designer S: Can it be completed in one workshop? Is one afternoon enough to get it done?

Social worker H: More or less. <u>As for design brainstorming, it can include some more creativity ideas comparing with the final version</u>. (1-02-06).

Designer S: If some of their viewpoints are not adopted, will they feel disappointed ?

Designer Z: In my opinion, we can only conduct initial discussion about the concept of "management team". So there are many uncertain factors.

Social worker H: Indeed. Perhaps they can be truly developed on the day of opening ceremony. In the past two months, more and more people will showed their interest and join in.

Designer S: Volunteer team is the subject of our workshop. The rest provide feedback like audiences. For example, cleaners of property management or roof gardens offer regulation and technical support to the volunteer team.

Designer Z: They can also join us.

Social worker W: Because they are also the space stakeholder. Everyone who come to the workshop should make their own statements.

Social worker H: It is a mutually shared space. Everyone is the stakeholder. They are all equal. <u>In fact, everyone has his right of discourse and utilization</u>(1-02-07).

Designer Z：What we hope for is that residents can tell us their expectation of the space and activities, also make sure they agree with our solutions and themes.

Social worker H: Firstly, elaborate and digest solution. Then, the second part and third part require residents to participate in the discussion.

Designer Z：The second part is the process of brainstorming. Then, we can post their ideas.

Designer S：We can present a large picture of space. Participants discuss it over and over

again. We post their opinions on it, regroup them, and see what activities can be included according to space.

Social worker H: How should we divide the into groups?

Designer S: 30 people in a group? Or all of them together?

Social worker H: Well, in general, we ask them to propose opinions, and a specific name is also required, such as recreation group, planting group and management. They are divided into groups based on different interests. What do you expect this region to become? What are the functions you hope to realize? We need to be clear about the functions. Currently, our concept is still quite broad and not specific.

Besides, the same reason also applies to management. If demands become clear, the space will be managed by four groups. Perhaps more resources and people should be required by propagation. Other than demands, contribution also needs to be considered.

Designer Z: Is guidance needed at this moment? Don't they know what demand is?

Social worker H: No. In fact, residents are pretty good at it. There is no problem about it, I think.

Designer Z: Then we need to give feedback on the spot. Some operations are feasible, while others are not.

Social worker H: They have to accept it. You can realize whatever you propose, right?

Designer S: For example, we had to thought a lot about the previous solution. But subsequently, self-governance is needed within the limited community resources

Social worker H: <u>The purpose of this workshop is to develop the code of conduct for residents to pile construction waste.</u>(1-02-08)

Social worker W: This is our ultimate target.

Designer S： We need to reach consensus on the utilization and management of storage yard, demands action plans and regulations.

Social worker H: That's right. We should proceed step by step.

Designer S： Didn't this community have code of conduct and regulation on decoration?

Social worker H: I don't think so. I never knew about it.

Designer Z： Generally, construction work should not be conducted after a certain time point during the day.

Social worker H: Yes, the routine regulation is the rule of management. But the residents do not identify rules from bottom to up. (1-02-09)

Designer S： Responsible departments demonstrate the current regulations. Then, we talk about the future plans, they propose suggestions, and in the end, we may arrange them to form a common scheme. Based on this consensus, we need to discuss the specific steps and what actions are necessary. After the workshop is over, we can publicize the scheme. But I have no idea how the owners committee reached the consensus.

Social worker H: Our discussion should be approved by the owners committee to form a consensus. After that, residents' viewpoints and suggestions will be posted in downstairs of buildings.

Social worker W: According to my personal experience, the so-called publication is that Huang persuade property management. But at least it is the process of communication.

Social worker H: Indeed. Staff of property management are dependable. As for our current regulations, we still have a lot to do before completing what we discussed. How should we make them come true? In fact, the workshops have their own similarities in constantly reaching the next consensus and final implementation.

[Memo] After NGO, designers and Mr. H meet each other, they conduct further discussion and prepare workshops. They have unified understanding and agreement on participation process, i.e. "Users propose demands and form shared visions", "Users arrange their own contribution" and "Initialization and maintenance of self-governance team". The final target of workshop is to reach consensus on stock pile utilization and management, in order to develop the action plans. According to effects in later stages, this model also has its own defects. It deviates from the basis of community self-governance, thereby resulting in failure.

1-03 Online communication and project approval conference

Participants: "Mutual community design" group chat

Time: June, 2016

The secretary reminded us to hold a multi-party conference, because things progressed slowly. As the designer, I don't find it necessary to participate if there is no substantial progress. The secretary said on WeChat, "The urban neighborhood committee can't determine community project alone. But we will offer guidance. So we expect professional teams to introduce the design thinking at the conference. If residents respond actively, the urban neighborhood committee can officially sign agreements, and we are about to facilitate the project. We discussed about resident participation with leadership." he also added, "mass participation is an important indicator for community projects to progress smoothly and pass the government assessment". (1-03-01)

1-04 Project approval conference officially started

Participants: Mrs. Huang Mrs. Gu from neighborhood committee, property manager Mr. Wang, cleaner Aunt Xu, owners committee director and members, resident representatives of flower club, members from NGO, researcher and designer Zhu and Song

After designer introduced the scheme, residents expressed opinions. W from the

environmental protection arranged them. Residents cared more about small and practical problems, while the secretary advocated self-governance to them. He said that there is no such thing as one-hundred percentage democracy for some public affairs (within the community). "Referendum" is still essential in the end, as long as two thirds of residents agree. He took the car parking issue in Y community as the example. In his opinion, every resident should give considerations to other people.

After representative made statements, attendees all agreed on the project of reforming the garbage room and rubbish piles. Meanwhile, the secretary said proposals of representatives will be further improved in the future discussion. Attendees responded positively and said, "It is a good proposal" (A lady repeated this point many times)(1-04-01). They showed hands for about two minutes. After that, attendees also hoped to renovate the stairs and roof garden during the first phase. Experimental unit should be successful in one attempt. This suggestion was accepted by many people.

Mr. H concluded the technology of the meeting. He said that like many meetings, some people soon forgot about the rules. Community staff and secretary reminded "Each person can only make one statement", and the situation slightly improved. Mr. H said "there is only difference, and not right or wrong" in brainstorming. Criticizing is not allowed. It is an important rule of Robert discussion(1-04-02). Mr. H agreed to keep an open mind and learn from professionals.

1-05 Participatory workshop about overall design

Participants: secretary Mr. Zhang from autonomy office of sub-district office, director Mr. G, manager Mr. W of Yestate property, cleaner Aunt C, owners committee director and members, resident representatives of flower club, cadres of neighborhood committee, members from NGO, researchers and designers Z and S

Before activity started, residents came to the activity center of neighborhood committee

on time. They look very excited. (1-05-01) They wrote down their names on the sheet. In general, women tended to be more cooperative, while men simply directly walked into the site or stood by and watched. With our guidance, almost everyone posted and their names as required(1-05-02).

Besides, Ms. H from NGO environmental protection was busy making preparations in another room. She wrote down the keywords for the next steps on the back of previous posters (Please imagine. Describe the function of space. What resources are needed for realizing the functions? What is "my" contribution). As is discussed last time, our common hope is to form the volunteer groups according to their own preferred approaches.

Attendees were divided into two sections: male and female. Mrs. H emphasized the garbage room should be administered and changed into a new scenic spot in the community. (1-05-03)She told everyone: capitals and funds were mainly raised from five different aspects. The first one is that Luoshan neighborhood committee is rated as the national science popularization community with a prize money of 170,000 yuan. The second one was regional Party construction. Some enterprises supported this project. Rubbish storage management is meaningful to corporate divisions of every commercial residential building. (1-05-04)

Director Zhang Li of sub-district office expressed her own thoughts fluently. She said, "This project reveals the concept of 'I am in charge of my own home'. It touched me deeply. I hope that projects like this will be conducted more and more often". Everyone in the meeting applauded greatly.

Next, Wei demonstrated the way of self-introduction:"Hello, everyone. My name is W. I'm from Aifeng environmental protection. My role is to promote garbage classification in the community."

Then, everyone took turns of self-introduction. Speaking of the flower club, they showed the sense of pride. An aunt introduced herself in a proudful way: "Look, we are all members

from the flower club". Everyone else applauded when hearing this (1-05-05).

Before starting the detailed introduction of projects, H emphasized the meeting principle. She said, "our project lasted from spring to autumn. Finally, it will be implemented. why is it so completed? It is not just a traditional project--designers complete designs and construction organizations finish them. Why is this project so different? This is a project responded to residents' demands (1-05-06). It is the space reform project of multiple participation and cooperation. This project not only involves space reform, but also resident participation and environmental protection. Hence, it has multiple traits and identities(1-05-07).

H talked about the purpose of workshop. Firstly of all, she responded to the suggestions on last proposal. Secondly, she asked us to imagine about the future space. Secretary H, aunt c, ordinary residents, flower club and owners committee, what new functions do you expect the space to have. They all have different demands. We need to learn more about this, because the space belonged to all of us. (1-05-08) 440,000 RMB would be spent on this project. How to make the best of it and manage it? What is the value? How can it become the platform and space for mutual communication? This is our second purpose today. Thirdly, construction will soon be completed. Who will the space belong to? Secretary, neighborhood committee and owners committee will not take charge. This space belongs to the whole community. It should be administered by the community groups. Today, we need to think about the future management. There is still time for revising the design. I need to make some minor adjustments.(1-05-09)

H said, "In addition, we need to have a name for this space. Do you still remember?" "How about Youhe Green Site?" "The name is from designers, we hope you can generate you own name. At this moment, someone interrupted H and said , "I think Green House is better" "OK, we will discuss it later." When you are divided into different groups, we give you a piece of paper, discuss the problems and write them down. Based on this point, we will be able to make some changes in the future(1-05-10)."

They were divided into groups. The meeting site became disordered. Some people did not know which groups they can attend(1-05-11). After groups were divided, they started to discuss. Each discussion had ten minutes.

The first open discussion focused on "What do I expect the space will be?"

Director G: I think a rolling door should be installed in the horizontal direction, so that it can cover the whole site(1-05-12). In addition, the front moving doors are made of wood. We think they will be quite large doors, in order to present the picture posters. The section of colored drawing can be exposed, but it should not cover the area that is blocked by construction waste. If residents want to get to the roof garden, some regulations should be adopted. There is no problem with the flower club. You can go to work there every day. But if some of you invite relatives to visit there, instructions and rules are also necessary. Another worker from the urban neighborhood committee proposed his requirements: compost should be ventilated, clean and convenient.

Secretary H, "We mainly focused on discussing the management requirements of cleaner (1-05-13). She is involved in garbage classification, so she hopes it can be installed behind the distribution box. Trench and water pipes do not affect the environment. In addition, we require the small compression door to be open. The ground should be quite tidy with no waste. But some boxes and snacks might be put on the ground. Is it possible to make a small and closed space to contain the temporarily recycled cartons. "

Director W: as for flower club, roof gardens should have water and electricity. Composts should be sealed with ventilation. A flower stand is also necessary for residents to watch the flowers from a certain distance.(1-05-14) The flower club also proposed a stainless steel chair built in the roof garden in order to facilitate some activities. Lastly, I think it is necessary to set up grape trellis. It is good-looking and breeds grapes at the same time. The name should be green roof garden.

At this moment, everyone was discussing names and meeting became out of order.

Neighborhood committee Q: I hope to hang a board on the wall of transformer substation that shows information about pets, such as breeding of dogs or medical treatment of certain diseases. (people applauded again)

Mr.H concluded that, as you can see, we all have unlimited wisdom to come up with so many ideas in such a short time. Just now, four groups proposed some detailed requirements, such as chairs, flowers and plants. They will be taken into consideration in the future. Such ideas give life to the community. Other than owners, cleaners also proposed demands, such as the space for washing buckets. This is something that we didn't think about in the past.

Then what means behind all these demands and requirements? After the future space implementation, a management system will be set up. For example, who will take care of the pet group? The flower club has a lot of members. Can they offer to administer the space, take care of keys and watch out for buildings? We discussed some quite specific demands, and that is our harvest today. But there is another issue to be resolved. <u>The requirements were not only completed by the owners committee. They are also quite hard for carrying out this work.</u>(1-05-15) In the future, can you also in charge of a part of the management task? Today's discussion laid the foundation for our future. We have a clear idea about the special focus that you all pay attention to, and future management will progress in that direction.

Mr. H asked designer X and roof garden W to respond.

At this point, resident M (previous representative of owners committee) proposed a question. He worried about the high maintenance cost of the green wall. The automatic irrigation system is installed and utilized. Mr. M explained that maintenance expenses are paid by the community, which was the reason for such concerns. Several hundred or thousand yuan would not be a big problem. But more expenses will be unacceptable.

After the section of raising questions, the host began to conclude. Mr. H said, We could

discuss a lot of things in one hour and 40 min. <u>If we keep a favorable order and procedure, many things can be recorded in written forms to reach agreement. It is just the power in a participatory meeting</u>(1-05-16). Therefore, we need to learn about this method of proposing suggestions, writing them down, conducting discussion and sharing knowledge. In that way, we can clearly figure out certain tasks and problems? Is that OK? Today, we conducted an experiment. Hope you all like it and accept it. Secondly, the orders and disciplines are generally well maintained, but they still can be further improved. We don't have microphones. If some of you take privately on your own, other people might not hear the main speaker, which is also a waste of time and efficiency.

Lastly, Mr. H offered two assignments. The first one is about the self-governance team. The second one is about the names of the site. Hope all of you can take part in discussion. <u>At this moment, Mr. H smiled and said: You gave quite a good name</u> (1-05-17)" H responded "That's your viewpoint. But everyone has his own idea. Hope we can come up with a name and reach a consensus in our next meeting. Is that OK?"

Memo: the above assumptions and expectations are quite detailed. Some of them even exceeded designers' suggestions, such as grape trellis and keeping dogs.

1-06 Participatory workshop about dumping site

Participants: secretary Mr. Zhang from autonomy office of sub-district office, director Mr. G, manager Mr. W of Yestate property, cleaner Aunt C, owners committee director and members, resident representatives of flower club, cadres of neighborhood committee, members from NGO, researchers and designers Z and S

Secretary Mr. H conducted the opening introduction. It was about the management of dumping site. Since all of you want to make the dumping site more beautiful, the key is the piling of construction waste. So the discuss today is quite important.

Mr. H added: Yes. How to change it and what management method should be adopted

Secretary H: Indeed. As for the management, we want manager W of property to introduce the following aspects: how was garbage piled in the past? What did property management collect fees and pay expenses?

Mr. H thought that Secretary H asked too many questions. She suggest that everyone focus on the current situation on step at a time.

Manager W talked about garbage management: for construction, property management charged 1000 yuan from residents, but they were not willing to pay that much. They only wanted to pay 600 yuan. The garbage truck charged fees for construction waste based on the following standards: 400 yuan per five tons, 600 yuan per ten tons. Property management preferred to notify garbage truck at ten tons. The difficult problem was that garbage expenses suffered losses. The main reason for the loss was that environmental sanitation workers could not find out who dumped furniture like sofa, chairs and cabinets. But they still had to take the garbage out of the community, and expenses were paid by property management . secondly, trees were trimmed four or five times a year, thereby producing green garbage. They were also charged based on the rate of construction waste. In this case, residents make phone calls to environmental sanitation company. They tend to wait until the second day and get the job done. As a result, the concept "daily cleaning of garbage" can hardly be realized.

As the designer, I asked questions about "ten tons of garbage on the spot". Manager Wang said ten tons occupied about two thirds of site.

Mr. M also asked a question that is should the residents be charged for building waste piles?(1-06-01).Manager Wang said 1000 yuan would be charged for cleaning the construction waste. But many owners refuse to pay or only pay a small part.

At this moment, sectary of neighborhood committee, Mr Gu said in a very loud voice, "As the director, I often walk around the community. I think Mr Wang didn't fully express the complicate situation"(1-06-02). After Secretary G made statements, the discussion was still

disordered. They didn't how to proceed with it.

Mr. H proposed let the design, who engaged in serving procedure, offer guidance. Designer S drew flow chart about disposing construction waste. Everyone else found out the problems and proposed possible solutions. It was the method of "journey map" in service design.

Manager Wang said: when Aunt Cheng collected ten tons of decoration waste and ownerless garbage, we call the office of environment and sanitation, and they cleaned them away the next day. But another problem is: after several days, the garbage still didn't reach ten tons. But six or seven tons were piled there.

S further confirmed: the problem was we didn't know when it would reach ten tons. Secretary also added: I think Mr Wang needs to point out one issue: only ten tons of rubbish will be cleaned away. But we don't know when it will reach that amount. So it is a matter of time. (1-06-02)

After finding out the real problem, L also said: "Yes. That is the point I want to make. What does it mean? Rubbish will be cleaned away only when it gets to ten tons. It concerns the cost instead of (overall) garbage management."

W: I share the same idea with L. But it's not the problem of our abilities. Sometimes, we call the office of environment and sanitation, but they will only come to clean the garbage at the level of ten tons.

Secretary H concluded: even if we transport five tons with garbage truck, but office of environment and sanitation does not offer support.

Director G laughed and said: Indeed. They also need to economic effectiveness.

S: Is it possible for some households to pile construction waste together? They disagreed, because they couldn't conduct decoration during the same period.

Mr. H put forward a principle: in case of ten tons in the community, garbage should be cleaned away the next day, or within a period of time. You may set a standard for this.

A resident said: one month will be good enough to clean the garbage away. I don't quite believe that staff at office of environment and sanitation don't want to come over, as long as you keep making phone calls to them every day!

Z: Can we communicate with other communities about carpooling?

Secretary H: we need to contact other people.

S: let's propose the solution and not deny others.

Secretary H: firstly, how many tons of garbage must be cleaned away? Secondly, within how many days should the garbage be cleaned away?

Mr. Li continued to summarize and add. I think three points are critical. The first one is the amount of tons, then is the time, and last point is how to deal with the inspection. (1-06-04)

Mr. H: agree, we focus on the ideas of Li, OK? We shouldn't focus on all the topics. So let us discuss how many tons in the first.

"We should ask the aunt about that. Ten tons of garbage will fill the place up" the resident said (at this moment, participants just talked about this problem on their own terms).

H: I noticed that you all have different perspective of interest. I think three principles are feasible. The level of tons can be reduced. Then we deal with the time point, so that we continue the discussion.

H: OK. Ten tons is the current problem. It has to be changed.

Resident: if ten tons is not OK, how about five tons?

Everyone seemed to agree: then five tons?

H: How long can you be tolerated to the garbage?

L: clean garbage away every two week. Director G said one month is OK.

A female resident said: as long as we don't see the large pile of garbage there.

So everyone agreed on two weeks. Mr. M said: it doesn't matter about that. But we need to consider the season. The bad smell of mosquitoes and flies will be terrible.

H: then we divide it into summer and winter?

M: if two weeks are OK, there is no need for different seasons.

Resident D: we can't cover it with cloth? We need to consider the problem of concealment!

H: Mr. Dong, I understand that. But we also need to consider the cost.

Designer S: listen to others' suggestions. What target do you have in mind?

Resident D: this place has never been completely cleaned since 2007. Hence, it is necessary to be concealed and less obvious.

She kept talking in Shanghai dialect.

Designer S: cover the garbage when it is not too much. Any other standards you have in mind?

Li: beautiful, odorless and dustless.

Song asked everyone and they agreed.   What is the standard of beautiful?

L: It can't be seen with eyes.

H: Another requirement is that I hope they seem normal and regulated in unison rather than disorder

L: It should be hidden, so that others won't throw litter around(1-06-05).

H: sometimes people litter around. It's the management issue rather than design. We determined the principle. The third problem is inspection.

Secretary H: this is what I care about the most. In my opinion, in case that leaders come, will the garbage be cleaned away, even two tons?

H：Notice ahead of schedule.

W：If the covering is upright, then the leaders will not see it.

G：Many people often visit here. In that case, costs will quite high.

S：other than covering five tons, what other management do we need?

G：For example, if you see someone moves garbage on the monitor, go to find out who the real owner really is.

H：I think it is still quite hard.

M：The owners committee will contact you, as long as you get the account ready and clean. I care about more the costs of ownerless waste. For example, I discarded a sofa, and how do you charge fees about it.

G：Make a price list, and we all discuss and agree on the unified standards, such as toilet and soft.

M：The list should also be posted and approved

H：OK. We had a good discussion about the expenses.

M：Some owners committee staff are not here today. Let's have another meeting someday.

At this point, i had an idea of changing the site, and discussed with another designer. Then, i shared the new solution with other people about changing the stock dump. Residents were talking on their own.

You just asked how to hide and cover the garbage. It used to empty. We can convert the dumping site to a vertically rectangle. Move the door slightly and close it at ordinary times to leave an open space in the front.

Everyone thought it was quite good to finally solve a difficult problem(1-06-06) .M asked: is it enough for the forklift operate there? Cleaner aunt C also said that construction waste must be cleaned away by large trucks, so they had to lean against the wall

Mr. M said: if it is operational, it is the best solution.

At this time, manager W came back and said, as long as the forklift can go in, there is no big problem. (1-06-07)

Other people suggested to test and ensure that it is OK for forklift to go in and out. They asked Mr. L to take charge the next day.

Designer S proposed: is it possible to build a recycling room? Direct G said: the waste and garbage in community still looked usable. Secretary H suggested to go back to topic

Memo: the meeting lasted for two hours. It discussed the current issues of construction waste, possible ways, reformation scheme of new space. Participants found out the cause for the long-term problem, and came up with solutions.

1-07 3rd participatory workshop about the self-governance rules

Participants: secretary Mr. H of neighborhood committee, director Mr.G, owners committee representative W, representatives of flower club, resident L, Aifeng environmental protection H, AIfeng environmental protection W, designers Z and S

Prior to the workshop, we also contacted on WeChat. Secretary H said: we started with learning about project situation and proceed to the next step. He used a metaphor: there is no water for many monks to drink. Mr. H said: the secretary is best at finding water.

G: I don't think their purpose is to find fault. Instead, they conduct supervision based on management rules. We need to obtain oral and written materials, avoid complicated procedures (as well as quarrels). if the system include one director and two assistants ,they have their own obligations. Other than doing our own jobs, we also supervise other people. We can't just focus on others' problems.

Aifeng environmental protection H: Yes. Rather than finding faults, everyone should make contribution. It is the core of community service. We need to serve for our shared communities. I think what G said makes a lot of sense.

G：Yes. Make some rules.

H：Current principles are too general. Let the design talk about how many sections and space for management

Z: the site has clear division. First one area has compressor inside. Second area if roof garden. Third area is garbage dumping site. Fourth area is construction waste site. Fifth area is the flower nursery. It is a vegetable garden to grow vegetables. The sixth one is about publicity, including environmental monitoring date.

G：We also mentioned the picture poster on the outside of wooden door.

Z：Fixated picture is better, or it may fall off.

G：The best thing is that people can see it when passing by.

Z：What contents do you have in mind?

G：The neighborhood committee has many contents about legal affairs, family planning and many other things.

Z: Contents should be related to this site.

Other people laughed. family planning? Dustbin is not related to family planning at all.

As long as contents are related to garbage classification

Z：Roof garden, nursery garden, promotion and publicity are closely related to residents.

G continued to explain in Shanghai dialect: where should we wash the dustbin ?On the road behind backdoor. There are two problems. Firstly, it's not fair to people on the road. Secondly, the road got wider and management is needed. Now, we wash dustbin behind the power transformation box. Water taps and drain holes are connected. (from outside to inside) Improvement is needed in this aspect.

H：The aunt mentioned this point own her own. I think she is quite good

G：Very well.

L said quietly: This will bright a lot of benefits to residents. If garbage reaches ten tons, the project is in vain. Aunt Chen agreed: Yes. What you said is quite right(1-07-01)L proposed: management depends on the system instead of people. Rules, regulations and check-up system should be formulated

L asked designer for help. Mr. H showed it to residents. Mr. L proposed suggestions. They started to discuss in small groups. I tried to make them quiet and listed to me

Another owner said: we think of stone bench about the wall.

Another woman said: it won't work.

L: But here is the entrance ! (emphasized)

X：There is no room for the stone bench. Each one cost 200 yuan(loudly)

They began to fight. Mr. L sighed to express his complain.(1-07-02)

I also thought of using as the public chair, but it is a little bit too high. At this moment, a resident suggested: we dig out 20 centimeters down the stone. Everyone agreed(1-07-03).

Z: Mr. L talked about the drainage method and how to hide dustbin from others

L: Is there canopy near the dumping site?

Z: There isn't.

G mentioned his idea of rolling door again. Another resident said it won't work. The top of forklift will be torn off.

I said the rolling door is 1.8m high. There is no need to worry about this problem.

Mr. H said: we made principles of five tons or two weeks, so there is no big problem about it. We also have to reach consensus with other people, because consensus also requires costs.

Resident: yes. Discussion is necessary. We need to seek for similarities and preserve differences

I continue to explain that although it is a garbage site, it should be covered or concealed too tightly.

Mr. L said, we consider two points. Firstly, heavy wind don't blow. Secondly, flower nursery can be a little bigger

W reminded us not to discuss them again, as they had been discussed before. Let's mainly focus on discussing the management rules of space

H: we need to write down each section. The first section is about roof garden, managed by the flower club. Many of your suggestions were adopted. The second part is about unified and shared management of flower nursery.

J of neighborhood committee proposed: the flower nursery doesn't have good lighting. W of flower club said: plants should be grown where there is no sunlight.

Manager W took charge of garbage room management. Mr. H confirmed the eight categories and four buckets: glass, plastic bottle, plastic product and carton. They took up a lot

of space. Others included small things like metal, tetra pack and paper. There were also toxic, harmful and electronic wastes

H: there is nothing wrong with the setting. As for the meaning of demonstration, it is necessary to tell people they can do it.

Resident asked: No.1 and No.2 buildings were so far away. Will people come to participate? It is a voluntary act without forcing anyone to come.

Mr. H: it has the function of education. Green partners will be invited to offer classification and guidance.

1-08 The opening ceremony

Today is rather cold. Temperature is minus five degrees. Maybe it is the lowest temperature in a winter day of Shanghai. Many residents gather on the square. Other than announcing the start of Youhe green site, we also conduct " garden party" for everyone to visit each small space and have interactive games.

Mr. H invited Prof.D from the sustainable development center of Tongji University. After the opening ceremony, I went to his office, and learned about some technologies he applied(1-08-01).

During the opening ceremony, L asked me to recommend a boy friend to his daughter. He and his wife think I should know many young people in the university, so they talked with me about this issue in private. (1-08-02)

2. Place-making of the neighborhood space in the Beixinjing corridor

2-01 Informal interview in the Hejiahuan building

In the corridor of Xinjing Village, we met a mother who happened to go downstairs with her three-year-old child. The young mother patiently finished the choice of intention map with

her child (2-01-01).

Then we went to the home of Ms. Jiang, a teacher who lives with her husband. She talked with us for a long time. She likes to make beaded beads, and shows us her hand-made card packs, dolls and other small handicrafts (2-01-02). Beading is an important leisure for her and other women. Ms. Jiang's husband is also an easygoing person who is taking care of the small vegetable garden in the center of the outdoor square. This small vegetable garden, which is formed by the space of idle equipment, is planted with various kinds of plants such as leeks and peppers.

For the second time, we and the staff of the Street Management Office went to XinjingVillage to know about the situation. When we arrived at the building 211, a drying rack was hung in the public space on the first floor, and as we discussed whether the drying rack should be removed, a resident living on the first floor rushed out. She was a middle-aged woman who was about forty or fifty years old. It can be seen that she was very angry: "Don't do anything at our doorstep, nothing is needed. This drying rack is not allowed to let go, otherwise where are we drying clothes on rainy days?" This place is good for our family! (2-01-02) The staff at the street tried to explain that this place is public, but obviously it didn't make sense. The resident was very angry. Later, her husband also rushed out, in a very unfriendly attitude. The head of the management office Mr. Liu indicated that I need not explain more. Out of this building, Mr. Liu said that these residents should also be reviewed. If they don't cooperate, they will not be beautiful corridors (2-01-03).

Two weeks later, we came to install the doorplate, and Mr. Jiang called for ten residents. Everyone was happy to heard that they were going to take a group photo. The attitude of the former spoiler was surprisingly cooperative. She did not have any emotions nor dissatisfaction, and even went home to change her clothes for taking pictures, and standing in the middle of the team when taking pictures, which surprised and puzzled us a lot. (2-01-04).

On the way, a neighbor came up to Ms. Jiang, "Your place are such a beautiful building.

Oh, mine is not as wonderful as yours." said the neighbor with a ridiculous and somewhat jealous tone. <u>Ms. Jiang quickly explained, "Don't say so, it will be your turn soon"</u>(2-01-05).

We wanted to put an alarm on the ground floor, but the residents seemed reluctant as they felt it was unlucky to install an alarm. <u>Mr. Jiang who always supported our work was also hesitated under everyone's pressure.</u> (2-01-07)

<u>On this day, Ms. Jiang put two beaded dolls in a bag and insisted on giving them to us as gifts</u> (2-01-08).

Memo: Later, in order to understand the change of that resident, I consulted Liang Yan, the Secretary of the Neighborhood Committee. "In fact", said the Secretary, "there is no change in attitude, such people were unreliable. They just don't want to lose face when everyone is here. But on the whole, they are very selfish. Ms. Jiang, who lives upstairs, also thought she had bought the place of the ground floor. Actually, they don't have sense of law. This place is shared by three families.

2-02 No.67 Building

When I arrived at Building 67, a grandmother, who was over 90 years old, didn't open the door. <u>We finish the research out of the door</u> (2-02-01). The second floor is the house of a grandfather who writes calligraphy . The 90-year-old grandfather and his wife can be called a loving and happy couple. Grandpa can write calligraphy, and grandma can paint, and two people are gentle and very cultivated. Because we did not provide the manuscript to the construction team, the cloud drawn by the construction team on the wall was not good. <u>We are not very satisfied with the painting, but Grandpa said with a smile, "Such a vivid painting! Look! The cloud is ready to fly, so cute!"</u>(2-02-02)

Afterwards, something strange happened in the building. Someone wrote on the blackboard of first floor, "The neighborhood committee is messing around". The Secretary of the neighborhood committee said to me, "<u>It should not have the function of leaving message.</u>

Just hanging the notice is enough (2-02-03)" It is estimated that the resident not merely complained about the construction of the corridor. He probably is full of complaints all the time. The Secretary said that there was now a pile of objects at the entrance of Room 101, and the residents on the upper floor were dissatisfied. However, since the residents complained about the piles, why did they blame on the neighborhood committee? In a subsequent group meeting, the clerk mentioned that the resident of Room 601 had a lot of complaints, and it was possible that the light was taken by him. The resident argued that opinion was only a face-saving project instead of practical actions. He even mentioned the property law, etc. (2-02-04).

2-03 No.3 Building

Under the leadership of a male building director, we arrived at Building 3. There were two households on the first floor. The first person greeted us with great enthusiasm and began to introduce her handwork. She said that this was her strong point, and she was very excited when talking about this. The chief of the building seemed to imply that she had a certain degree of mental illness. She always said that if you liked it, you will take it, and she liked to play with it.

The other was the heir to the intangible cultural heritage. She had her own studio, small, with lots of materials and models. She showed us some weaving works and mentioned that the work was big enough, so the photo frame was bigger. Later, because of the budget problem, we did not have the 500*500 photo frame that she wanted. She was dissatisfied with the photo frame we selected. During the installation process, she complained, "how did I get it? If it was not big enough, it would not be conspicuous (2-03-01)." It is possible that she had already prepared the work, and suddenly the size was wrong, causing her work to be modified, thus causing complaints. Until the work was placed on the wall, it looked good, did she calm down a little.

2-04 Young children Workshop

The Little Housekeeper Workshop originally planned to be a group of five corridors. The plan was at first to be assessed at least three times between the housekeepers. <u>Because the child's time had not been right, or because the activity was not within their regular curriculum, it was finally compressed to just once.</u> (2-04-01).

We first introduced design idea to the family and then taught them to express their ideas using models and collages. It was obvious that the building group, with the participation of the cadres of the neighborhood committee, was easy to develop to the theme of "culture" and environmental protection. There were three groups of buildings without the participation of the cadres of the neighborhood committee, which were completely freely carried out by the children and parents. <u>The proposed leisure building, happy building, rainbow building and the green heart building were more common and closer to the civilian</u> (2-04-02). Children around the age of 10 were more involved. An 18-year-old girl coming with Dad, who probably because of her age was too old to participate in the little butler group, was unwillingly to be involved.

"Scene collage" was a very good technique. Everyone who was around 10 years old, one accompanied by mother, had completed the Rainbow House program. It was a bit like a manual activity. They had already learned to use collage to finish a design. Another child was brought by grandma and was also very happy to play.

<u>After the workshop, everyone responded to the call and posted the poster in the corridor. Later, everyone had interactions with each other on the Internet.</u> (2-04-03). Sun Leyao's mother was the most active one, and she said that the residents were very happy after the corridor was beautiful and clean.

3. Construction of the corridor space in 363 Lane, Fushun Road, Sipinglu Community

3-01 First meeting with the directors of every building

On 5th July, 2016, the student designers and the representative directors of the residential buildings held a short discussion meeting, where they knew each other and expressed their opinions about the corridors. People who attended the meeting included the representative directors and residents of the six corridors in the community of 363 Lane, Mr. M in charge of the corridors, and the director and secretary of the neighborhood committee. All those attenders are also the relevant actors in the future. Following the meeting, we were led by Mr. M and visited No. 16 building famous for its self-management (3-01-01).

3-02 Participatory workshop

On 13rd July, 2016, we conducted the related work with the residents of the community of 363 Lane in a form of workshop. First of all, the secretary introduced the aim of the activity to the residents, and I as a host, also introduced them the characteristics of the corridors. All the participators were old people. Students reported the two plans to them respectively, and then made designs with the residents of the 5th building and the 15th building. At the beginning, the residents were somewhat worried when listening to the students' reports; till a student took out the group's prototype, they were lightened by it with opinions, and discussed with the students about the model (3-02-01). Another group made lamps with them, and also taught how to make clay models (3-02-02).

3-03 Implementation Period

On July 16, the project was put into practice. The residents just greeted us when entering and going out of the buildings, and no one took an active part in the project as we expected. A director told us to talk to the staff of the neighborhood committee. For one thing, we didn't make invitations; for another, the residents considered it as what would be done by the foreign people, thus no need of care (3-03-01). But there were some interactions. For example, some little residents took an initiative to leave messages; the kind residents offered dessert to the

student designers. Moreover, the residents who believed in Christianity were more open-minded; a woman also talked about the recent activities with others, and recommended the youth choir at 7 p.m. on July 24. The resident in this floor commented the two children taking photos with the working staff with sweats.

3-04 Online interaction

The director of the 15th building didn't say a word in the group, but he uploaded some photos after the implementation (maybe the senior disliked the way). A "evacuation" plan was adopted before the project was completed. That is, we kept communicating with the directors of the buildings in WeChat to maintain connection with the community; the student designers also made frequent interactions with the residents of the 16th building.

4. "Xu Yuan" Public Space in 89 Lane, Chifeng Road

4-01 Space design workshop

Participants: 15 residents, staff of the street, the author, researcher, and www.dianzan.it

The time of the first workshop was fixed at 7 p.m., and all arrived at around seven thirty in succession, when the work was just getting started (4-01-01).

At first, the researcher introduced a former project he did to us in order that we could know how the design project with the participation of the community is conducted by a full case, which all of us listened carefully.

Next is the self-introduction. We asked every resident that which floor he live and how many households that his floor has, aiming to show, in space, the distribution of participants and think about whether there was a regular rule or not. We required that residents take the floor in order with the home-made microphone. In the beginning, all of them could follow well the requirement, but the latter had no patience with listening other introductions after over ten minutes, and the rule was a little disordered (4-01-02).

While people were introducing themselves, a passing young resident happened to see this workshop. She stopped for a while and asked for saying something actively. This young mother came up with an idea that she wanted to set up an after-school care to make the children of similar age play and study happily in that her child was in two-job family and had few activities after school (4-01-03). Everyone nodded and agreed with her. And her words guided into another part, "designing and imaging", which disturbed our ideal step-by-step procedure a bit.

After self-introduction, following the Robert's Rules of Order, people began to put forward successively their imaginations to the space.

"Last year, we had a meal together, and I think that both of having a meeting and meal together are very good. Besides, I think we should take all of people who live in this building into consideration now that this place is going to be design and build, including the demand of after-school care that the young resident raised just now, which also should be considered, for example, Children's Playground could be built in the sunlight room or the vegetables and flowers could be grown in the place of greening outside. In addition, about the after-school care, I'm an English teacher and I can help for free as long as I am not in trip! (4-01-04)"

"Everyone has a lot of ideas, such as the entertainment room for the elderly, ping-pong room, tearoom and so forth, and is there any problem about the air due to the large-scale printing nearby (4-01-05)? We have benefited from the first phrase of reconstruction, and many relatives and friends praised it, however, inside, floors from the first to the fourth are staff dormitory of Tongji University, whose environment is quite poor, which is inharmonious with our reconstruction, and the environment from the fifth to the main building are OK. I hope, through this activity, that two big units (another is the Bank of Communications) could govern themselves to get the whole building done and feel comfortable while walking in every floor."

Residents were generous with each other and wanted others to say first. "Sing if not say!", Peter joked therefore.

"I hope this place is multifunctional where we could read books and drink tea. Previously, I always drink tea out of the door, and now we can drink inside. In this place, old people could sing songs and read the newspapers. Behind, something for children could also be established. All is all, it is a comprehensive and multifunctional space."

When it was Director Shi's turn to speak, "Conclusion comes!" someone said (4-01-06).

Shi said, "I hope there are four themes about this construction; the first function is for the elderly, the second is teenagers. After returning home, at weekends, people can exercise here, including the sunlight room which is excellent if leaders of the street could invest some money to have a comprehensive training machine. The outer also needs a good environment where the greening could be better and something about culture could add. Small as the sparrow is, it possesses all its internal organs."

The other residents also spoke one by one.

"One is an activity room whose the tables were prepared previously, which seemed deserted. The entertainment room for the elderly could be set up here, where has books and newspapers, yet the televisions are not necessary. Unlike the former time when people watched TV, sharing newspaper is also good."

"I want to say garbage classification is just a form in many places, and this time, we should find out the ways to implement the garbage classification by reconstruction."(4-01-07)

"I believe that it is a multifunctional hall here where the air is fresh. I could give a suggestion that the seat design on the wall to flop down when need and take back when needn't." a teacher said.

"I have an idea about the sunlight room where we could be in a daze, sun and chat. Just now, I was frightened when someone said the air problem, and I might as well go outside to sun. Therefore, we should solve this air problem.", all people couldn't help laughing.

Researcher reminded people to listen carefully again.

"I wish all people could have fun in this place."

"The first is we must handle well the pollution. It is so pungent when I return home sometimes. I used to raise this problem and I was thinking that it would be better of the visual effect if it could be three-dimensional. Furthermore, we could set up a sunshade on the greening ground."

"I hope the space of moving could be as comprehensive as possible. And there are more old people in this building, so I also hope this design could be more for the elderly. Apart from this reason, students' study is very intense, and they don't have much time to play because of much homework from Monday to Friday."

"Nowadays, the living condition is better, and it would be better if there is a recycling bin for the waste (4-01-07). Also, the afforestation plan, I think, is in a mess and doesn't have layering."

"Constructing a harmonious community is a good idea and stands for residents' wishes. It changes a lot after the first phrase of reconstruction. And we are so honour that we could start the second, especially knowing the government is willing to support us. The government gives us special consideration. The existing problems such as the express boxes outside of the houses whose management is not reasonable, and who is the person in charge in the future, are problems. And the time of organization and question who is the organizer are very of importance."

All ideas can be concluded as the outer space of reading room, the entertainment room for the elderly, the children's playroom, and that the outdoor space could be adjusted as a community garden. They all appeal for diversity and complex functions.

"In this stage, everyone is positive to give suggestion, except the of Secretary pf Owners

Committee who is whispering with others all the time. Researcher reminded people to listen carefully all the way and don't talk about others with other people." "Don't regard us as pupils, what you say seems like talking to children that ask us go to school hand by hand. It is no problem that we speak respectively", Peter grinned with sarcasm. (4-01-08)

The next step is group discussion. We were divided into two groups according to the space for the elderly and for children raised by residents. All people came in their own scene, and began heated discussion. Although I couldn't enter either of the two groups, I could feel how hot the discussion was. Both of the rules and records were gone. And nobody returned the table for discussing even if it was time to stop (4-01-09). We give out the concept images to residents. Residents had a look and put away the images raised by the group that put forward the design for the sunlight room, finally closed all concept images and said, "there isn't anything (for reference). At last, they began to write down the ideas in the way of "writing". (4-01-10)

The third round was the naming of the space. All agreed with the name "Qun Yue" which means happy together, and then they added more than ten names. Later, a teacher whose WeChat name was "Mimi", through WeChat, give a name "Xu Yuan" and explained the meaning in details.

4-02 Day of moving house

Participants: nearly 20 homeowners

On 31st Jan, we planned to decorate the space. The deputy director L, who put off the work due to some issues before, also arrived. She saw us and politely said: "Welcome everyone!". Later, residents arrived one by one. Teacher Zhu Mimi took her single reflex camera and took photos for us. Afterwards, she also made an online photo album and shared with us (4-02-01). After a short while, some children also came here, the kids of house owners. They were very happy and excited.

At this time, a resident on the fourth floor arrived, the girl living in Tongji University staff

dormitory, who was mentioned above. She looked around and was very curious. She asked if we were holding a tea party here. However, deputy director L replied that the meeting was held for owners and asked if she lived here. The girl answered that she lived in the fourth floor. Peter said, "Well, the spaced was established for owners. Non-owners can't come here. The girl continued that she would reflect some situation to street office for reorganizing the space in fourth floor. Peter said: "Okay, just ask your leaders in university."(4-02-02).

Residents helped to install the seats. Everyone was deeply involved into the installation process and discussed about the IKEA's taborets. When we were hanging horologe, two aunts always stood beside that whispered that they felt the hanging position was so high that they needed to rise their heads when looking at the time. The most excited people were these three kids and gained much fun during sticking wallpapers.

Memo: Aiming at the workshop, we made an interview for designers. She thought that Y had a stratified management for interior meeting. In their primary structure, these people who knew each gathered together. There was a presupposed setting in their minds. Therefore, it was more important to know their original business discussion mode during proceeding community work.

5.Yidun Apartment

5-01 The informal dialogue with owner committee members

Participants: Aunt Zhao and Teacher Yang of Owner Committee; the secretary of Neighborhood Committee

Today we made an information meeting with owner committee members, through which we intended to know more about the community. Zhao and Yang was over 70 years old. We could tell that they were intellectual residents with high artistic appreciations. During the first meeting, Aunt Zhao didn't take me as an outsider and told us about some her own hardships engaging in owner business. Especially when she rejected a committee member who was

suspected of abusing public power, she suffered his hostile acts for many times (5-01-01). Through her introduction, we knew these two elder principals made all-out efforts. However, the community lacked of young people who were willing to cooperate with them or taking over their responsibilities. For this reason, I wanted to find some young assistants for aunts through this participatory community reconstruction, to help them reduce burdens.

5-02 Design workshop

Character: nearly 20 homeowners

We design the workshop in community center. Residents were just arriving.　Aunt Zhao showed her welcome to everyone. She was like this in daily lives, who nearly named every passing resident and said hello to residents (5-02-01). All of participants were old people, and most of them were female. At this clock, young people were on their jobs.

First, we used tags to present the spatial distribution inside the two buildings to participants. The first step was basically completed. Second, we planned to know people's daily activity tracks and asked them what they would do every day. We intended to know their public activities and activity time and if there were some activities that could be carried out the community center. Some aunts felt confused about the second step, because they thought that daily lives and activities were irregular. (5-02-02)Then they expressed their objection in a hubbub. Facing the confusions and queries, I lost my confidences to guide participants to finish the step. I just wanted to finish the step as quickly as possible. Yet, professor Tian gave a different performance who took his own answer as the writing model for others (5-02-03).

The third step was making brainstorming about the space design. We followed Robert's Rules of Order and allowed everyone to take turns to speak. During the step, Teacher Yang, who always had clear minds didn't really put herself into the discussion. She thought now that she was an organizer, she already finished her task after all people arrived. Therefore, she left the assembly room and had been on the phone a long time (5-02-04). Teacher Tian thought this

place should be the amusement park for kids after school. Tian was determined for his idea but faced the opposition from Aunt Zhao. Aunt Zhao worried about the security and management problems. It would bring about lots of troubles if kids knocked against hard corners (5-02-05). According to their plan, the community center was locked and only opened for activities (5-02-06).

After the workshop, we stayed and continued discussion. At this time, teacher Yang suggested that we should tell all people about the space's applications and then make Dianzan introduce their services. Yang thought we didn't make it and felt a little regretful. However, when associating with her performance in workshop, I felt a little strange about what she said.

Memo: The author thought that except for the space design, the problem was that Yang and Zhao separately undertook many community affairs. The author wanted to find other supporters for them. We defined the questions as the issue of the community and expected to find a solution.

5-03 Community school: walk into Liu Yuxuan's astronomy world

Time: 29th October, 2017

Place: neighborhood center in Yidun Apartment

Participants: 15 kids and parents

For finding a competent person to help owner committee members reduce burdens, we would like to held community school- where community residents can teach drawing, shooting, etc. Through these activities, we can connected community members together and find the potential person.

The first activity's theme was astronomy. We had already known that Aunt Zhao's grandson Liu Yuxuan was a talented boy, especially in astronomy. We intended to invite him to have an astronomy class for these kids in our community. On this day, he made an adequate

preparation and his parents also debugged PPT and videos for him (5-03-01). 15 little kids arrived and the empty activity space was filled with people. Yuxuan was just like a little teacher and introduced different galaxies' information and features effusively. During the class, one mom bought many cups of warm milk tea for kids considering the cold weather (5-03-02). One dad was very dedicated and took his son to every activity. The 3-year-old boy couldn't understand all contents, but he persisted in joining in entire process.

We established an WeChat group after the activity. These moms were discussing how to choose suitable astronomical telescope for their kids. Later, Yuxuan's mom always shared some links about extracurricular activities (5-03-03).

5-04 Community school: Decorating Eaton with Children's Paintings

Time: 2nd December, 2017

Place: neighborhood center in Yidun Apartment

Participants: 15 children and parents

The neighborhood committee and the homeowners had expressed their demands for decorating the corridors for several times. The author deemed that it would lack of the participation of the community by entrusting. Why not decorate Eaton with the paintings of the children in our own community. Knowing that there was a painter in the community and he also donated his oil painting to the community for decoration, the author asked Aunt Zhao to invite him and teach children how to draw pictures. Aunt Zhao had invited the painter for two times with a rely that "it may be difficult for Professor Gao to teach the little children, because he is not as active as the professional teacher to create an hot atmosphere for them" (5-04-01). Therefore, the idea of inviting the resident as the drawing teacher in the community school could not be achieved, so we had no choice but to invite the experienced young painting teacher outside.

In order to hold a successful activity, the empty activity room was placed with some children's desks. In this process, there were some difference between the designer and two aunts. The designer came with a task of soft decoration, thus having designed a lot of furniture. But aunts hoped to leave with sufficient space. Through discussions, we determined to purchase a small part of the furniture (5-04-02). the following community activities (including painting and the Christmas Party) proved that the two aunts had made the correct decision. This space really just happened to accommodate the family that came to attend the activities, and much furniture was irrational.

The first activity had absorbed 15 children and others of the next community. The painting was themed with flamingo. All the children finished their works under the guide of teachers. Afterwards, those works were marked with their name and address, installed in the corridors respectively (5-04-03).

5-05 Publicity of the design plan

Time: Entrance of Eaton Apartment and its corridor

Participants: All the homeowners

The notice was pasted in the last floor of the corridor and the entrance of the community. Most of the residents agreed with it, and some left certain strange messages. For example, someone hoped to build a lollipop square. Mr. Yang said that some of them must be written by children with jokes (5-05-01). The plan was made at the first stage, so it required time for revision and adjustment. Aunt Zhao and Aunt Yang felt kind of confused.

6. Open your space project: renewal for old Siping community

6-01 A new imagination of Siping Community by its workshop

Time: 31st October, 2015 and November 1, 2015

Participants: 24 residents of Siping Community and 48 undergraduates and postgraduates

of Tongji University

Focusing on the innovation of Siping Community, a workshop named as A new imagination of Siping Community was founded in Zhongfen in these two days. More than 20 residents participated in the workshop. <u>As the local neighborhood committee assisted the activity, the participants were found to be the aunts always active in the committee, such as the secretary of the neighborhood committee, sisters of her circles, and cadres of the cultural and educational sessions</u> (6-01-01).

The first activity was held mainly for the adults. We offered the community's maps and circled the reconstruction range. The participators were to finish the activity by marking positive or negative map or collaging future map. The residents may not come from the selected area, so they also mentioned their hope to promote the road and public space where they lived, such as adding light lamps and music. Then, students discussed with the residents over their initial design.

The second activity was for children. We guided them to create their dream public space with clay. <u>What the children referred to include the adding of park and bookstore. All of them felt glad to participate in the activity</u> (6-01-02)

6-02 Coordination meeting

Time: November 10, 2015

Place: Sub-district office

Participants: 10 staff of the sub-district office, designers and researchers

<u>The secretary first affirmed this plan, and remarked that "the plan costs much. In this way, people will not complain us without culture"</u> (6-02-01).

We held different views on the design of the Circle Kingdom. Initially, we misunderstood it as the sidewalk and worried about its safety and management. Someone used an example of

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Tongji where once there was a sandpit removed because of an accident. The secretary mentioned the insurance of the community and asked whether the residents had purchased. He also remarked the hidden danger on the football field to indicate that safety problem existed everywhere. But someone reminded that the public area was unlimited, thus useless to inform of the danger.

The secretary said that Chifeng Road symbolized the center of the street; once academician L made designs for it, some much attracting. Director D has bought with resources since his coming, or we could not do even though with the intention. You were so professional designers that we could not understand what you say sometimes (6-02-02).

6-03 Discussion in the sub-district office

Time：November 15th, 2015

Place: Sub-district office

Participants: 10 staff of the sub-district office, designers and researchers

I suggested combining the exhibition with the forum, and inviting scholars and experts to explore the relations between community and innovative entrepreneurship. So as to promote the activity.

In the past, I lived in the 5th village of Anshan, and I have walked on this road for over a dozen years. At a sight of it, I felt excited very much, for there had my deep memories. In a narrow sense, it would be more special to integrate the elements of the new village and the old city.

We could not only consider the innovation in colors, but the daily needs such as the lights. And the complaints of residents must be avoided.

The creativity was enough, but lack of the landmark. Though an activity, a landmark was supposed to be left.

Those plans made good reflections on the sense of design through fashionable design elements. The second was details, caring more about the convenience bought to residents. It would be more meaningful if there were one scene every ten steps in the Siping Community. Here were two advice. The first was that the introduction to the publicity design was essential, so that understandings were made; the second was that the age of the community could be further explored, so could the new things.

The interaction with the residents was great, and I also witnessed the participation of the high school on the open day. <u>Then, whether were the stores and plants around willing to join us with part of resources</u> (6-03-01); many of those designs were not used by teachers, maybe the school or residents around; they were also with a sense of honor. Besides, in order to illustrate the reconstruction of those sites, whether a guide should be made.

When discussing the elements of Worker's New Village, we all agreed that the concrete fence in the Tongji New Village was the relatively old element.

A suggestion was also proposed that the documentary about the removing of Fengcheng Xincun shot by Shanghai TV Station could be appreciated to see what could reflect the sense of an old community.

6-04 Prototype on the street

Time: 29th November, 2015

Place: Public places of Siping Community

Participants: students and residents

Today, I conducted the prototype test on the entrance plan with students. The passers-by were so curious that they joined us actively. For example, one work of the students was to place emergency boxes for pets at the roadside and provide some papers and plastic bags for the past dog raisers. A resident observed ten minutes and communicated with the students for more than

ten minutes with a comment that "the idea is great, but whether to use it or not depends on the man's quality; once I have witnessed a young man..." At last, she joked that there were not many curious old women like me.

Another group of students was to paint on the wall behind a stall to repair bicycles. The students attempted to communicate with the stallholder before their bothering. At first, the person refused, but later, when the students made a promise to replace with a green blanket, he softened a lot.

6-05 Return visit on the street

Participants: students and residents

In the course of the research, some issues on maintenance were found. For instance, the work of Home turned dirty because of the rare use, and the dirtier it was, the less people used, a vicious circle. Some of the old people told us that they prefer useful things, such as sun shad. For the sun could not reach at the place, so they didn't sit there. (6-05-01)

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