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THE PATTERN AND METHODS CONCERNING THE MICRO-RENEWAL OF THE URBAN ENVIRONMENT

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ABSTRACT

Micro-renewal in historic districts is a small-scale, low-cost and short-cycle urban renewal mechanism which is oriented towards a limited number of people and relatively easy to be carried out. It is an exploratory experiment for cities in China as they are experiencing great transformation. The purpose of Micro-renewal is to make “micro changes” in citizens’ ways of living, promote society-based participatory design and cultivate their awareness to participate in urban design.

Micro-renewal changes a city from the micro perspective just like re-creating a living creature right from its cells. With macroscopic control and intervention by the authorities, higher education institutions and design institutes can find pieces of small renovatable land in historic districts to launch some pilot projects. In these projects, local people can witness that incongruous buildings begin to blend in their life again after reconstruction, and local government can see new possibilities of how to renovate historic districts.

KEYWORDS: Historic Districts, Micro-renewal, Renewal Pattern

1. BACKGROUND

As the origin of a city, historic districts is one of the most important spaces reflecting the city's culture and historical memory. Micro-renewal reinvigorates a city through the smallest changes just like re-creating a living creature right from its cells. In October 2017, during his visit to Yongqing Fang in Guangzhou's Liwan District, Chinese President Xi Jinping commented that urban planning and construction of a city should accentuate its own unique features and improve its living environment in a patient and precise way such as making Micro-renewals.



[Figure 1] Micro-renewal Project of Yongqing Fang
(Left—Before Renovation; Right—After Renovation)

In 2015, the Guangzhou local government issued the “Guideline of Urban Renewal in Guangzhou”, in which the concept of Micro-renewal was put forward for the first time in China. In the Guideline, Micro-renewal was defined as a way to renovate architectures without changing their original architectural layout by maintenance, partial demolition and reconstruction, or change in their function. Micro-renewal is mainly implemented in the built-up area where the current land use and development are conflicting and the living environment is relatively poor. And it also has to be relatively insignificant in the whole layout of the city. This paper attempts to explain the complexity and uncertainty of the city space in China from a new perspective. We have learned that these complicated but all-encompassing historic districts reflect much profound philosophy and vitality. From them we have also found some areas to be explored in the urban aesthetic threshold.

2. LITERATURE REVIEW

While scholars in both China and other countries make different judgements on large-scale city transformation, they emphasize that the basic human needs should be taken into account in urban construction. Besides, they begin to focus on space types which were eliminated or concealed before as they are not practical in terms of spatial practice. Studies on these city spaces that are being demolished, relocated and are thus scattered and hardly visible have made the urban aesthetics more practical.

Chen Zhanxiang was the scholar who first introduced the idea of urban renewal into China. He called it the “metabolism” of a city. Wu Liangyong put forward the concept of “organic renewal” from the perspective of city protection and development at the beginning of 1990s. Since 2010, the number of studies on Micro-renewal has greatly increased and most of them are case-based. For now, Micro-renewal means to make changes in the fragmented built-up area and the existing buildings in the city with the purpose of meeting the new needs of people's daily life and work. These studies have great significance in the exploration of community Micro-renewal path with Chinese characteristics.

Urban living space are stepping into the next stage of crisis of constant unnecessary reconstruction from the stage of reconstruction with crisis constantly happening. Related cases have provided us with experience and much inspiration. There are still some problems in the Micro-renewal in cities in China compared with that in developed countries. For example, we often attach importance to the protection of cultural relics while neglect the protection of historic environment; emphasize the protection of architectures' outer image while ignore the protection of the culture behind them; value the protection of buildings while overlook how to put them to good use. All of the above show that the transformation experienced by cities in China is both complicated and contradictory, and that we should make further studies on how to implement the Chinese theories and methods of Micro-renewal.

3. METHODOLOGY

This paper takes Micro-renewal in historic districts as research object and uses traditional methodologies such as literature review, questionnaire survey, observation and systematic analysis, and innovative methods like digital landscape. In this paper we put forward an ideal method to implement Micro-renewal in historic districts. At the macro level, we have made a comprehensive analysis of studies on the status quo and planning of historic district space through logical reasoning and we have taken successful cases for reference. At the micro level, we have used questionnaire and multi-media information technology and at the same time conducted field research and data analysis

6.2 Micro-expansion of “Street layout”—Re-design that expands both sides of street and increases public space in vertical direction

It is common that the street layout in the historic districts is not enough straightforward and simple. These streets are usually humdrum and their public space is inadequate. To carry out micro-expansion for the existing buildings and street space with the purpose of meeting citizens’ need and enhancing street space quality, we should seek the problems that exist in the vertical direction of both sides of the streets, look for those passive space and streets with potential to be renovated, make an investigation of the daily needs of citizens around as well as analyze the existing spatial structure. By doing so, the space of streets will be more lively and better laid out, the passive space will be activated and the land use efficiency will be improved. As a result, more public service will be provided and the public space will be enlarged. Besides, based on the structure of the historic districts, we can some build public courtyards in the city with small-scale buildings that provide leisure and entertainment service to attract more people.

6.3 Micro-intervention that helps “keep the city memory”—Re-design that renovates the existing spaces and makes people’s daily life more complete

Micro-intervention can be implemented in urban renewal projects by preserving the old narrow streets, buildings and the old courtyard or under-the-eaves spaces, then summarizing and blending the characteristics of the existing city spaces to construct new different types of courtyard space (such as garden level, courtyard where old and new buildings co-exist and community-based courtyard). In such way more public and urban green spaces will be created and the residential, office and commercial buildings will become mixed-use facilities after proper integration. Preserving the old spaces helps citizens better adapt to the new elements in their life, and it conforms to the logic of society. Old spaces are irreplaceable in some sense as they can reflect the city memory and city culture.

The below figure (left) shows a Hutong before renovation. In the right figure, the small-scale art museum and library built in the renovation have transformed this Hutong into a new organic and mixed-use complex.



[Figure 3] Micro-renewal Project in Beijing—Micro Yuan'er

6.4 Micro-improvement of “environmental elements”— Re-design that instills vigor into cultural resource in historic districts by making full use of the environmental elements

Environmental elements refer to the basic elements that constitute the whole human environment. These factors are different in their nature, but they all observe the law of evolution. Usually environmental elements are water, air, rocks, creatures, sunlight and soil etc. Environmental elements are interconnected, interactive and inter-constraint. They are fundamental to our understanding, evaluation and modification of the environment. During the Micro-renewal in historic districts, we should put emphasis on the protection, invigoration and renewal of historic and cultural environment.

To this end, we should a) protect the material cultural resources; b) protect the historic architectures and other historic relics; c) protect the elements derived from culture; d) invigorate the non-material cultural resources; d) renovate the facilities in the city space. To make a clear definition of these elements, we should take architectures, people, space and environment into serious account from an inter-discipline perspective. As the fund of renovation in historic districts is usually limited, the above five steps constitute the framework of the Micro-renewal of environmental elements. Under the above framework we should make a combination of traditional symbols and environmental elements, and take a low-cost, easy-to-implement and widely-ranging approach in order to improve the quality of city environment and highlight the historic and cultural environment in the city.

6.5 Micro-integration of aesthetics

Guided by the principle of physical aesthetic comfort and architectural aesthetic coordination, we can set up a physiological sensing model of aesthetic practices in historic districts and carry out aesthetic practices such as “street slimming” (re-designing all the redundant things in the streets of historic districts), “tranquil street design” (reducing noise and increasing privacy of public space), small-scale community design and mixed use of land with the architectural diversity and aesthetic detailed characteristics taken into account. By following the aesthetic logic of historic districts and integrating new elements into their aesthetic space, the aesthetic subjects can establish their own self-identity, gain respect and achieve self-actualization. From this, we can build a social interaction model of aesthetic practices in historic districts. Based on the citizens’ daily life and aesthetic sense, we can renew the experience and value of the aesthetic subjects by the engagement of art in the community Micro-renewal. The existing aesthetic form of historic districts will be thus changed and the residents in them can enjoy new aesthetic designs. From that

we can set up a perception model of aesthetic practices in historic districts.

China has shifted its social goal from carrying large-scale construction into sustainable development. Against the backdrop of transformation in China's social structure, city Micro-renewal has already become feasible. Such humanistic approach of reconstruction can be taken as a reference for the inventory planning and participatory design widely advocated in China.

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