

# Research on Urban Renewal Strategy from the Perspective of Sharing

## Take Village in Campus at Huaqiao University as an Example

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**Keywords:** Sharing space, urban morphology, Village in Campus, urban renewal.

**Abstract:** In the process of rapid urbanization of the initial stage in China, space expansion speed is far beyond the pace of social development. First-tier cities have used colleges and universities to expand their enrollment with university towns, engulfing some of the existing villages. As a result, the remaining villages have formed a unique “village-in-campus” under the squeeze and encirclement. There is a conflict between the school and the village, but they are functionally interdependent. This is not an isolated case in the construction of Chinese universities, and the special nature of the campus itself faces new challenges in the renewal of the campus.

From the perspective of shared space and based on the field research and diagram analysis, this paper tries to explore the characteristics of village-in-campus from three aspects of the complex in a synchronous way, the incomplete and the porous defined by Quito Papers. In summary of these theoretical analyses, “Embedding” is proposed as a regeneration strategy of this case, and several renewal strategies for the school and village space are concluded for reference to future renovation practice. This paper is subsidized by NSFC project which is named as <Research on Technical System of “Downtown Factory” Community-oriented Regeneration in Yangtze River Delta Region>, NO.51678412 and NSFC project <Research on Time and Space Elements and Expression System of “Sharing Architecture”>, NO.51978468.

## 1. Background

### 1.1. *From demolition to organic renewal*

In May 2015, Shanghai took the lead in promulgating the “Measures for the Implementation of Urban Renewal in Shanghai”, stating that the urban renewal work should follow the principle of “planning leading, orderly advancement, focusing on quality, public priority, multi-participation, joint construction and sharing”. The 2017 China Urban Renewal Research Report released by the Policy Research Center of the Ministry of Housing and Urban-Rural Development (MOHURD) pointed out that China has evolved from the traditional material level which focused on demolition and reconstruction, to a new stage. This stage intend to to reflect the requirements of the new era, carry new content, attach importance to new inheritance, and meet new Demand, new ways of adopting new ways of urban organic renewal. In addition,

the strategy of “small scale, gradual, micro-circulation” will comprehensively guide the urban renewal activities in China in the new era. Furthermore, the creative use of idle workshops, the attention of urban public space and infrastructure quality will also provide new development opportunities for urban built-up areas.

Urban renewal generally refers to the process of transforming a poorly-developed community, low standards, poorly planned areas, poor areas, or backward landscapes in the context of Europe and the United States. In the book “The old city of Beijing and its Ju'er Hutong neighbourhood”, Mr. Wu Liangyong defines the renewal as three aspects. Firstly, Redevelopment, which refers to the complete elimination of certain elements of the existing environment to open up space and add new content to improve environmental quality. Secondly, Rehabilitation, which refers to the reasonable adjustment and utilization of the existing environment, generally for local adjustment or minor changes. Thirdly, Conservation, refers to the protection and maintenance of existing patterns and forms, and generally no changes are allowed.

In China, where society is undergoing profound changes, urbanization and suburbanization, urban renewal is not limited to the renovation of dilapidated houses, the improvement of infrastructure or the reconstruction of old areas, but also the renewal of urban structures, the reconstruction of functional systems and many others. Mr. Zheng Shiling pointed out that the current urban renewal in China is mainly concentrated in four aspects: the transformation of industrial zones and the protection and utilization of industrial heritage, the transformation of waterfront functions and space, the repair of historical and cultural features and historical buildings, the protection and repair of public open space.

### 1.2. *Village-in-campus: a special urban village*

Village-in-campus (VIC) refers to the residential area in the urban campus that is not affiliated with the school. The emergence of VIC has its historical reasons. Its existence has put tremendous pressure on the security of neighboring campuses, making school planning difficult, and also posing serious challenges to campus culture construction. Li Hanxue and other scholars believe that the solution to the problem of VIC should adhere to the principles of planning first, education-led, resource conservation, policy rationality, fairness and justice. In addition, through changing the property ownership and overall school migration as the key strategy.

The VIC is a special type of urban village. It is the remaining village space surrounded or squeezed by the emerging city during the rapid expansion of the city. It is also called the “village in the city”. Additionally, it has the dual attributes of cities and villages, and belongs to the category of cities from a geographical perspective, while retaining the characteristics of traditional rural areas in terms of social nature and spatial form.

## 2. The city becomes an open system

In 2017, Richard Sennett and Saskia Sassen proposed in the Quito Declaration that the lack of modern urban design is not a “retrospective nostalgic consciousness” but a “forward-looking time consciousness”. In other words, the “growth” of the city is not simply a new and old replacement, but the need to let the city’s past and the present dialogue, we should regard the city as a dynamic, evolutionary process, rather than a reinventing process.

The Quito Declaration advocates that the city should become an “open system”. It is permeable in space, not complete in form, and does not presuppose in the development of narrative.

It intend to break the uniform and isolated design and embraces a variety of architectural elements even with conflicting and making the building an integral part of the urban fabric.

### 3. Characteristics of VIC in Huaqiao University

#### 3.1. Cause of the VIC

VIC is a special type of the village in the city, with the general attributes of the urban village. However, due to the special medium of the campus, the composition of the villages in this city is relatively simple, and the type of space is relatively simple. In addition, due to the complexity of the collective behavior involved in the demolition of the school, the original campus construction faced great resistance, and eventually some residential buildings were “anchored” on the campus site and difficult to be recover. Take one of Huaqiao University campus as an example. The construction site of Jimei Campus of Huaqiao University was originally a mountain village called Duishan Village which divided into seven natural villages as Pan Tu, Xia Cai, Zhai Nei, Zu Zhe, Xitou, Xiqiao and Nanwei Wells. It could be seen as a high-density, small-scale, free-growing overseas Chinese households region in southern Fujian.

According to the needs of education development and campus expansion, the government assign the site which belonging to these seven natural villages to Huaqiao University. Due to economic pressures, construction cycles and other considerations, the government’s strategy for these villages is to demolish while construction. In other words, starting from the core area of campus planning, the demolition is gradually implemented and sprayed to other directions.

But as in other urban village demolition projects, the rapid construction of the campus has provoked “resistance” of those villages that have not yet been demolished. In order to maximize their own benefits, Xitun Village and Nanweijing Village on the north side of the site, as well as three villages in the southeast corner of the house, Pan Tu and Xia Cai, some villagers refused to accept government compensation and hindered the demolition process. Under various pressures, the campus of the Huaqiao University has created the “village-in-campus” situation which existing till recent years (Figure 1).

As a result, different groups of people in the campus interacted with the local villages resulting in significant spatial characteristics such as VIC integration, border living, and school hollowing. These characteristics have certain similarities with the synchronicity, porosity and unfinishedness proposed in the Quito Declaration, and also increase the possibilities of sharing during the renovated the village-in-campus.

#### 3.2. Synchronic: School and Village Integration

In the Quito Declaration, Sannet pointed out that open cities should have synchronicity. A closed city often clearly defines its function at the beginning of planning and when these functions will be used. In contrast, an open city means that the city’s multiple functions can be mixed, they are complex with no fixed boundaries.

The so-called VIC integration is based on the social relationship between the school and the village. The village residents and the members of the campus in the form of VIC have interdependence relations. On the one hand, the school provides jobs for the villagers, such as dormitory management personnel, campus cleaning, etc. On the other hand, the village provides low-cost rental housing, vegetable market, supermarket and other living facilities for

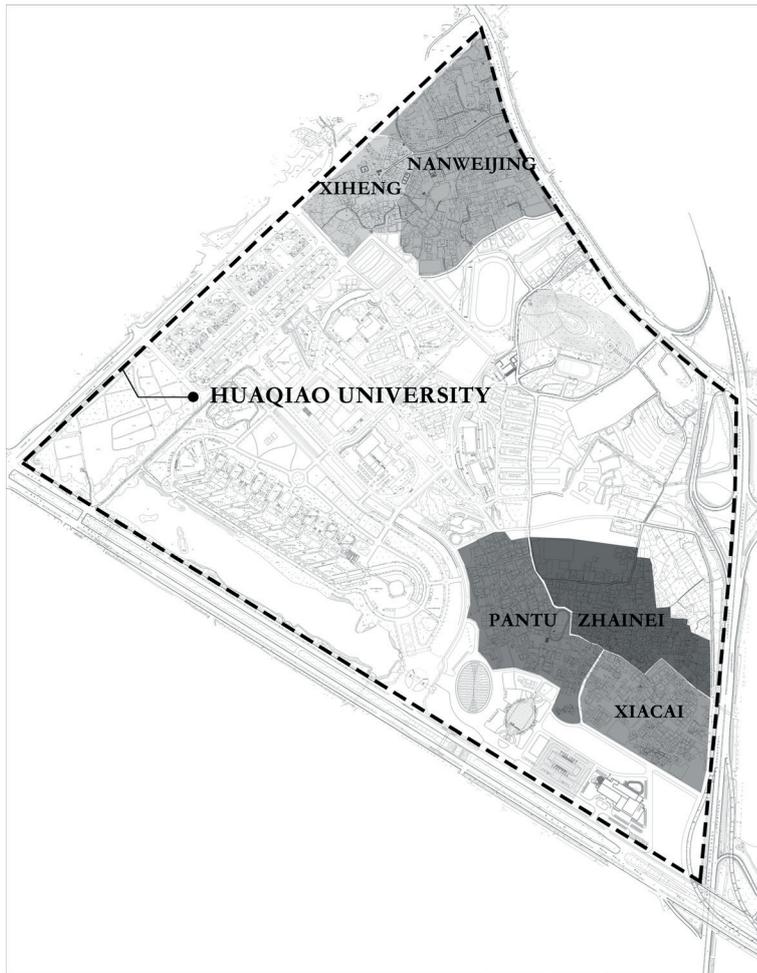


Figure 1. *Diagram of village in campus of Huaqiao University (Source: Author).*

the staff on the campus. In this way, the school can not only obtain more convenient services in a economical efficient way, but also those overseas Chinese and rural people who originally relied mainly on foreign remittances to get jobs and make substantial contributions to the society.

### 3.3. Porosity: life at boundary

Open cities should be porous and permeable, that is, the functional areas of the city should not be isolated and dead. For example, a hospital can be built in the business district, and a school can be built so that the public space and the commercial space can be integrated, allowing the poor and the rich to interact.

From the perspective of urban texture, the space between campus and village is very different, and there are clear boundaries that are separated from each other. However, the difference in spatial scale does not prevent the overlapped life scenes at the boundary between the two. For instance, during lunch and dinner time, students need to take out the delivery, but the nearest street to the dormitory is surrounded by iron fences and is not free to enter and exit. Therefore, the take-away rider used the clothes rail to send the take-away plastic bags to the students inside the fence, which has become a common life scene every day. In addition, the iron fences that were artificially installed and destroyed by the borders, the curious behavior of the villagers to the school, and the simple entrance ramps that were built spontaneously all showed the richness between the school and villages.



Figure 2. Diagram of function distribution in the VIC (Source: Author).

### 3.4. Incomplete: School Village Hollow

An open city should always be incomplete and can be adapted, developed and improved. For example, Masdar City in Abu Dhabi is a counterexample. It is a city known for its high technology, including the design of parking spaces, drainage systems and solar systems, which were the most advanced at the time. But when it was built in 2010, it was already a complete system, and when newer technologies emerged, it would be difficult to upgrade. In an open city, we should try to avoid these completed projects so that we can adapt to new situations and accept new elements.

The hollowing out of the school and village means that due to improper planning and construction, there are a lot of unused land in the campus and the village, which is like a hollow. The planning scale of the Huada campus is too large. The main road network is a 7 meter wide roadway. The campus is sparsely populated and lacks cultural facilities and basic living facilities of suitable density.

In the village, there are also a large number of abandoned buildings and wasteland that have no use value. Important nodes such as ancestral temples, stage, ponds, and wells in the village have not been well repaired, and their surrounding areas lack vitality. However, it is precisely this seemingly negative “hollow” state that provides unlimited possibilities for the sharing of school space.

#### 4. “Brick-into-stone” as sharing renewal strategy

##### 4.1. *The fusion of “Brick-into-stone”*

“Brick into stone” originally refers to a unique masonry method in southern Fujian province, which is common in Quanzhou, Xiamen and Zhangzhou. The constituent elements are stone, red brick and tile with different shapes. The materials are staggered, stacked and randomly distributed according to the main shape. The masonry is inlaid with each other, and it is harmonious. From the structural point of view, the stone has a high shear strength, and the sheared surface does not occur along the inside of the stone, so the structural integrity is good and it is not easy to collapse.

For schools and villages that are juxtaposed or even separated from each other, we can learn from each other’s strengths and complement each other by learning from the complementary ways of “Brick-into-stone”. Through the secondary placement of six major functions of teaching, sports, office, activities, exhibitions and catering, the spatial structure of the campus and the village will be reorganized to form a new venue.

##### 4.2. *“Bricks” that can be embedded in the campus*

The campus is the main place where students, faculty, and service personnel work and live every day. It offers a wide range of venues and modern facilities, but the scale of the space is easily large and inappropriate. There are a large number of vacant green spaces in Huaqiao University. The transformation of purely green land into functional green spaces can stimulate campus vitality. For instance, the lawn in front of the School of Music and Dance is about 14400 square meter which is a huge scale. But there are no shrubs or trees on the lawn, and there is no path to pass through. In addition to contributing green space to the campus, it is difficult to generate more attractiveness, and it is not worth using.

Through the re-division of space and the secondary placement of functions, this green space may be reactivate. First, the pedestrian’s moving position is marked around the lawn, and the site is fragmented by interconnecting (Figure 3). In this way, the resulting fragmentation space can be shared by the residence and the school.

##### 4.3. *“Stone” that can be embedded in the village*

In important functional nodes such as the village center, firstly, temporary buildings can be demolished such as the abandoned houses and simple houses, square buildings that are illegally covered, partially scattered houses in the open space, and houses that affect the texture of the road. Additionally create venue for evacuation and node plazas.

Secondly, use the buildings that represent the culture of the hometown of overseas Chinese should be preserved which including the ancestral temple and the family temple, to display the culture and publicize the science, or to stay in the relevant research activities. Set-up venues located around the residential buildings that are concentrated and still in use can be provided to schools and students through renting and sharing etc. (Figure 4).

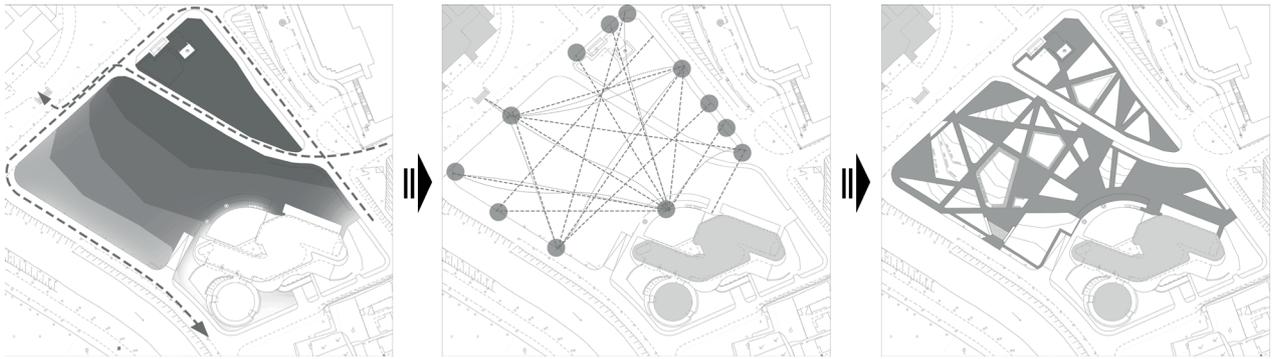


Figure 3. Diagram of the transformation of the lawn in front of the School of Music and Dance (Source: Author).

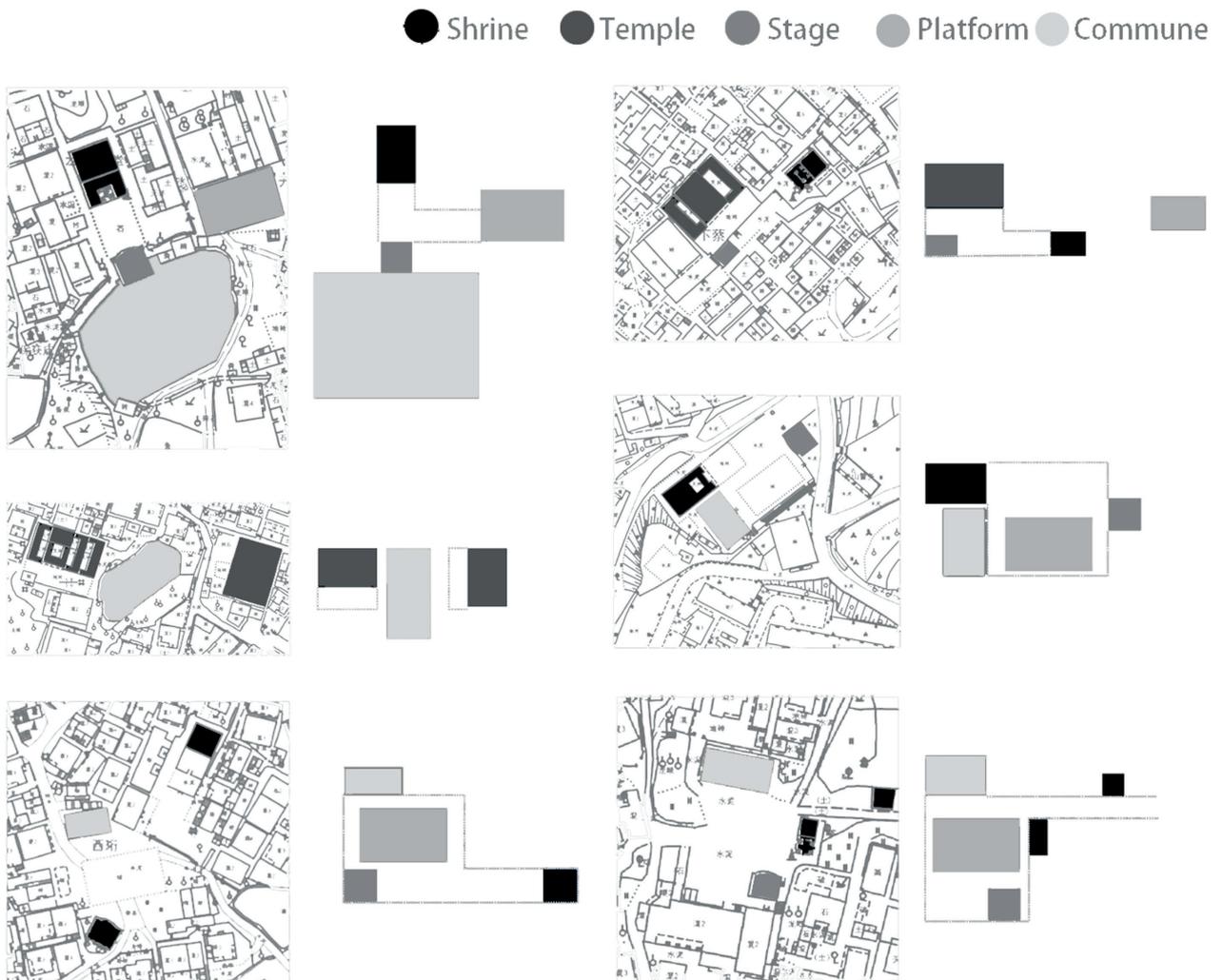


Figure 4. Village node transformation diagram (Source: Bian R.C.).

## 5. Conclusion

The fundamental purpose of urban renewal is to rationalize the urban built-up areas that are no longer suitable for modern life, gather the scattered population, and enhance the social benefits through the concentration effect of the population. To achieve this goal, the various functions of the city need to be integrated with each other to achieve a network rather than a single point of connection. The integration of multiple functions, formats and spatial forms in a particular region is an inevitable stage.

The transformation of the village in campus with the concept of “bringing bricks into the stone” can not only reduce the risks brought about by the strong balance breaking of social relations, but also help to make full use of existing conditions and resources, and to some extent resolve the isolation between the society and the society makes it possible to integrate schools and villages.

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