

## **Design with Life: Regeneration in Historic Spaces :*Urban Design + Architecture Design*** ***Joint Studio Between Tianjin University (China) and University of Nottingham(UK)***

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### **Introduction**

The paper records the process of a mixed-culture joint design studio, which was focused on how to revitalise a historic townscape in China to play an important role in people's lives again. In this joint studio, 16 students from both China and the UK in 4 groups were asked to carry out a site analysis together and to propose an overall design strategy for the conservation and revitalization of the area to include a new museum of modern history of Tianjin City. After a two-month-period of architecture design studio work, they presented their final outcomes in different formats. The Chinese students focused on urban planning and British students focused on more detailed architecture design according to the different requirements. All the designs of the students were to enable the people who would live in the area to be the absolute protagonists, try to create an active public places to meet the demands of people and at the same time improve the connection between the people and the city. Through introducing the experience gained from the 2010 China-UK Joint Studio conducted by the School of Architecture, Tianjin University and the Department of Architecture and Built Environment, University of Nottingham, the process of running the studio, critical analysis and evaluation from both staff and students will be presented.

### **Foreword**

In recent years, more and more international teaching exchanges and cooperations are being carried out by schools of architecture in Chinese universities. These are enabling teachers and students from both sides to further understand each other in terms of design teaching methods, contents and approaches, etc. During the period 2010 - 2013, Tianjin University, China and The University of Nottingham, UK conducted three design course based exchanges projects. Each of these activities lasted one semester on the basis of short-term design work camp. The participating students from both sides completed a joint urban design project for the same site followed by an architectural design project as per their normal schedule, difficulty and requirements of their respective design course. The students' works were then collectively exhibited at the

end of the semester. In particular, the co-teaching of the two universities in 2010 was the first cooperation between both sides, from which we gained more experience and inspirations than in other activities. This paper, taking as an example the joint graduation project in 2010 –the design of Tianjin Modern History Museum and urban design of the surrounding area summarises the learning process, achievements and reflections of teachers and students from the two universities during this activity.

### **1. Origin and Objective of Co-Teaching**

The Department of Architecture and Built Environment of The University of Nottingham shares a similar development history and teaching and research focus with the School of Architecture of Tianjin University. The two schools both have a strong engineering background and are wellknown for excellence in developing students' practical design ability. In September 2009, the two universities began preparation for the co-supervision of graduation projects in the Spring semester of their respective courses. The group from each side consisted of 5th year undergraduate students who majored in architecture and urban design, and the project was design for the transformation and renovation of the Tianjin Contemporary History Museum as well as a cluster of residential buildings to the north of the Museum located in the Wudadao protected historic architecture area in Tianjin.

The teaching objective of this joint design project was to stimulate the students to think and explore how to conserve the historic architecture in a "non-showcase" manner, namely to introduce functions and a vitality to the historic architectures and districts. This would involve the upgrading and extension of existing buildings and the introduction of sympathetic new buildings to create a successful residential and commercial environment, whilst protecting the material and cultural environments of the existing architecture and streets.

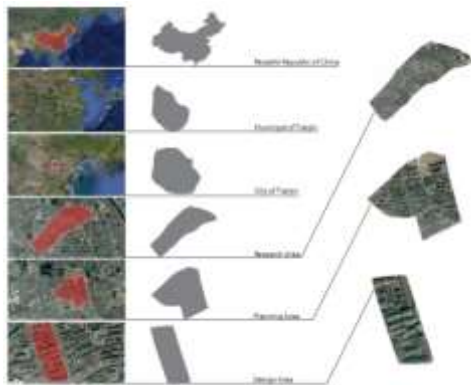


Fig. 1. Site Location

## 2. Process

### 2.1 Introduction of the site and establishment design requirements

The existing Tianjin Contemporary History Museum as well as the building group on its north side are located to the north of Minyuan Stadium in the Wudadao historic streets protection and utilisation demonstration area. The site is next to Hebei Road on the east, and opposite on the southeast there is Prince Qing's Mansion (Figure 01), the former home of writer Hang Ying. The Museum is built within the Wudadao historic conservation and demonstration area approved by Tianjin Municipal Government. The existing Museum is a transformation of original residences built in the period of the Republic of China (AD 1921) (Figure 02). Apart from a few protected buildings, the rest were ruined and decayed, and therefore mostly left unused.

The existing building size of the Museum restricted the addition of any more exhibits. Therefore, the task of the regeneration was to expand the Museum building and to also include a cultural exchange centre. The original architectural structural system could be either utilised to make renovation and expansion, or treated as an influence factor for additional buildings. To the north of the Museum, one or a group of building complexes could be built, including small hotels, inns,



Fig. 2. The Existing Museum of Modern Tianjin and World History

shops, galleries, creative industry studios and so on. The brief also required that significant design importance should be focused on the protection of historic architecture features and renovation of historic area. Solutions should be developed to address issues related to people leaving, economic value decline, loss of cultural features and other issues confronted by the area, and to balance the benefits of original residents, new settlers and business owners.

### 2.2 Concentrated research and preliminary strategy

Both the Tianjin students and their counterparts from Nottingham were divided into four mixed groups to carry out a two-day detailed site and building investigation. The work involved field exploration, interviews with users, visiting historic cultural heritage conservation department and a questionnaire survey, etc. Later each group performed supplementary desk and site based research. Through five days of studio tutorials, the research reports and preliminary design strategies were formed. All the students completed their works with their own reflections on the history of the site and the historic streets as well as visions for the future life of the streets, fully exhibiting their thinking about cultural inheritance and the life of residents. (Figure 03-06)



Fig. 3. Interviews with curators



Fig. 4. Site survey



Fig. 5. Group work



Fig. 6. Analysis presentations



Fig. 7. Strategies analysing draft proposals



Fig. 8. Strategies analysing site model

In the proposed strategies by the students of all groups, the first focus was put on the lifestyle changing issues of both the original residents and new settlers as well as the improvement of quality of life. From some groups, students drew several sketches to discuss how to reconstruct public places in order to save the disappearing courtyards and community life on the street, so as to give new vitality to the historic area

(Fig. 7、8) ; Secondly, all strategies emphasised the special design of the project reflected historic cultural

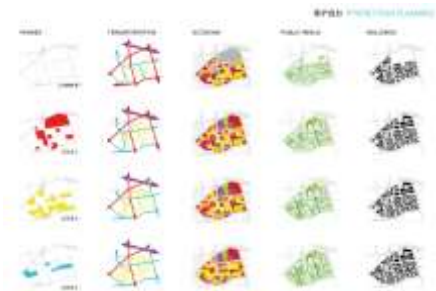


Fig. 9. Gradual and staged regeneration strategy: LU ZHANG



Fig. 10. Analysis of local people: LUZHANG

inheritance. For instance, gradual renovations and staged regeneration were suggested (Figure09) ; in addition, some technical problems were studied in relation to the renaissance of the historic streets with typical cultural characteristics of modern Tianjin branded by the concession history of the context, such as traffic, parking, architectural styles and symbols.

### 2.3 Design process and outcomes

The process of design definitely informed the design outcomes. During the graduation project, over three months, the students followed the directions of the strategies informed by the intensive investigation, and through careful consideration, elaboration and constant improvement, before they finally delivered their respective design outcomes.

From the perspective of the entire historical and cultural demonstrative protection area, the students majoring in urban planning of Tianjin University analysed the transportation, population, industrial distribution, public space, etc. (Figure10). They set a proposal containing three steps for the regeneration and renovation of the site. According to the analysis of the results, they formulated a land use plan including business distribution along streets and residential use arrangements for the buildings. The space for public activities was also divided optimally based on the state of the public space and street interfaces. The entire works were achieved through a logical thought process through investigation, planning, analysis, conclusions, adjustment, feed back to outcome delivery, which finally led to an urban design proposal and a control indicator system. The students majoring in architecture carried out the architectural design for the new museum area within the permitted range of the urban design indicator system. The students of the two majors communicated with each other on synchronous basis, so that from urban space to building space, the



Fig. 11. Urban design plan: JIASHENG GUO



Fig. 12. Stitching, design fills the gap between local people and immigrants: YING GUO



Fig. 13. Blending of the old and new museum buildings: WENBIN LIU

design of physical objects embodied their shared thinking regarding cultural inheritance (Figure11). The design of the students in Group 1 emphasised their holistic respect for human life from every aspect (Figure12). The Group 2 students stressed the spatial connectivity of the old and the new museum buildings, but meanwhile, the contrast between the two in terms of image and internal space were also highlighted, reflecting the blending and 'collision' of

cultures (Figure13). The new museum design of the students in Group 3 focussed on the lifestyle and demands of the new generations, by designing colourful and interesting indoor activity spaces for young parents and their children. The works of the

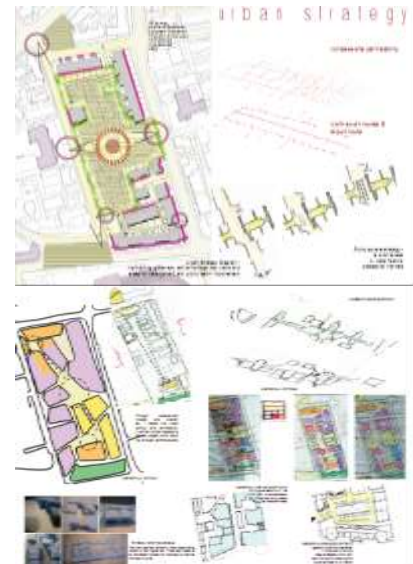


Fig. 14. Strategy of building in city: KATHRYN (UK)



Fig. 15. Revival of the life in the street: KATHRYN (UK)



Fig. 16. Culture life in a building group: SAIJAL (UK)

students from Group 4 focused on the change of people's living experience in the historic street communities, where shops, museums, book stores and cafes were connected by 'tubular' corridors, in pursuit of balance and harmony between the commercial value and humanistic value.



The University of Nottingham architecture students approached the process of creation by introducing their own thinking on urban planning in their independent architectural design solutions (Figure 14). The students in Group 1 sought maximum inclusion of the common things and individual highlights, by arranging businesses along the streets to revives street life (Figure 15) and located the new museum in the visual centre of the area. Modern steel and glass were adopted to contrast with the existing buildings and to make the new museum eye-catching from the outside. The four functional areas inside were closely connected with each other; the spatial experience of the users were well considered in the design of the internal areas and interfaces between functional areas, enabling people to experience the diversity and tolerance of life and culture. Students in Group 2 arranged aisles of different heights among a group of buildings, so as to let people walk freely from one cultural display space to another, tasting the “beauty of life” in different cultures (Figure16) . Students in Group 3 explored several combinations and decompositions of the



Fig. 17 Combinations choice plan between new museum and surroundings: RUZANNA (UK)



Fig. 18 Combinations choice plan between new museum and surroundings: SIMON (UK)

architecture of the new museum building complex, and finally chose one innovative solution for the design of the museum (Figure17、18) . Finally, the new museum was designed into two ‘U-shaped’ circulation which are independent in function spatially connected with each other. This symbolised the unification of the past and the future, the Chinese style and western style and many other factors. In their design, by referring to the concept “less is more” of Ludwig Mies van der Rohe in terms of exhibition spatial mobility, the structure and envelope were separated, with flat partitions freely

inserted inside, which perfectly integrated the three-dimensional space inside the building and outside the building(Figure19). The design theme of the students in Group 4 was “the People’s Republic”. With the site in need of regeneration, the new building was an attempt to become to be the centre, boutiques, eateries and guest houses, and desirable office space to its southern edge, to completely revitalise the area. It will become an attractive and influential place to visit, drawing in locals and tourists. The quieter road to the west of the site was been pedestrianised. Through encouraging the flow of pedestrians and cyclists, the site is opened up to the square to the south-west of the site, adjacent to the football stadium, whilst becoming a calmer and safer place. The street would also become a safer place for the children from the neighbouring school, as well as encouraging them to pass through and experience the site and its activities and the small public square to the south-west of the site (Figure20). The new museum was designed into a small structure, which is

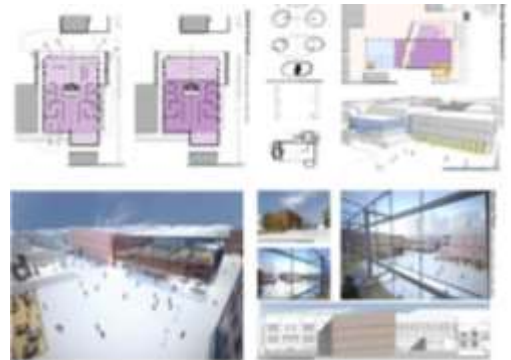


Fig. 19: New museum plan: SIMON (UK)

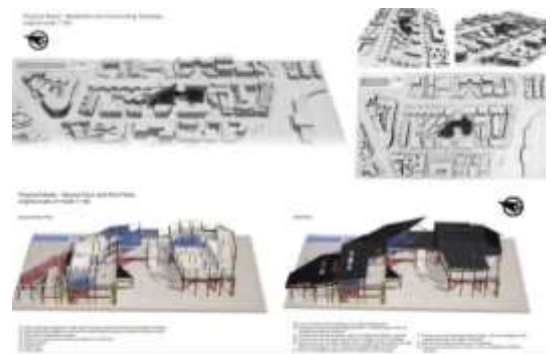


Fig. 20 New museum plan: LAUREN (UK)

extendable into the environment. The museum itself is not prominent, but it is well integrated with the surroundings, leading to blending of culture and life.

### 3. Experience and Inspirations

During the half-year of intensive and independent co-work, both groups of students as well as the teachers of the two universities shared many experiences in terms of teaching and learning together with cross-cultural areas. In terms of teaching guidance, both

sides had a lot in common. for example, both gave high importance to preliminary investigation and inheritance of history and culture, and they both believed that the design strategy must evolve from real life situation. However, from the outcomes of the students, we can see some differences between the teaching modes and cultural and professional effects of Chinese and British practises. Below are the strengths of the British party that have been identified from the project process and outcomes.

First, the British students attached particular importance to survey, communication and sharing, as well as teamwork in the course of survey and strategy formation. For example, during the visiting stage, the British students led the Chinese students to interview the residents of the area, listen carefully to their feelings of and comments on their life in the area, and even personally lived in the area for a day, in order to find out by themselves the pleasant aspects and inconvenient parts of life there. In addition, they used statistical methods to prepare a diagram of the use frequency and existing problems of the existing small public space. The group members highly valued the survey results, discussion on design ideas and communication with each other. Everyday, they made their discussion results and findings into powerpoint presentations to share with the group. When developing diagrams of the current status and analysis, the two groups cooperated and the work was allocated among all the participants, thus the completed diagrams were shared by both groups. From this, the Chinese students became aware that they had been less efficient due to not sharing tasks and outcomes with partners. The Chinese students benefited accordingly by developing good habits of summarising and discussing at each stage in order to inspire new ideas for the area.

Secondly, the analysis and thinking of both Chinese and British students are considerably logical. However, obviously the Chinese students and teachers are proficient in a 'top-down thought' development method, while the British students tended to adopt a 'bottom-up' approach. They emphasised the life experience of the users, and their designs paid great respect to life experiences, and also showed that they had dedicated themselves to bringing better experiences and life to the existing and future residents.

Thirdly, the British students were particularly keen on creating physical models to test their ideas, while the Chinese students tended to prefer to draw their ideas on paper or computer. The British students could also quickly engage in the comparative studies at the different design stages during the formation of design concept and also outcome models after the design was completed. Moreover their models could express the design ideas intuitively and clearly. It taught the Chinese students that the development model is a very

effective study approach in the initial concept formation period.

Fourthly, the preciseness of British students on the details of their architectural design demonstrated their strengths in turning ideas into reality. In the initial design strategy formation stage, the schemes of the British students were neither more mature nor more elaborate than that of the Chinese students. However, when the final outcomes were displayed, the works of the British students integrated detailed considerations on material choice, structural safety, structure, construction process, etc., i.e., their design was not only about new ideas for spacial arrangements, but also aimed at complete and mature designs for the realisation of the 'whole' architecture.

The language of architectural design is universal for all the learners and practitioners of this field across borders and languages. This co-teaching of graduation projects broadened the horizons of both the Chinese and British parties. It not only gave an opportunity for the British teachers and students to experience Chinese history, culture and custom, but was also good for improving teaching practice, make it more comprehensive and open in terms of content and mode, and focus more on humanism and relate more closely to practical life. Some of the Chinese participants of this activity later became graduate students of Tianjin University. They obviously show improved cooperation and shared consciousness in their study, and value investigation and survey more than before. Now they have got used to thinking "what I can realise for the users" instead of "what I want to design". They also learned to make development models at an early as the design strategy is studied.

An exchange activity like this let us see a different self and different others. It is hoped that through constant learning from each other, the students can significantly improve their abilities in architectural design, thinking, creation and adaptation, and they will gain a broader horizon and become more open-minded, with excellent professional qualifications and habits, and will do better in improving human life as architectural designers in the future (Figure21).



Fig. 21. students and teachers of the joint design studio