Reflections on Architectural Heritage Conservation in Shanghai

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ABSTRACT Research on the last 30 years of architectural heritage conservation in Shanghai would highlight the establishment of both a preliminary system for heritage classification and gradation, as well as an authorised heritage institution framework. During the course of this process, different conservation methodologies and models (restorations, additions, relocations, extensions and reconstructions) have been put into practice according to the actual situation of the historic architecture of Shanghai. An overall view shows how architectural heritage conservation in Shanghai has undergone three different phases—initial; experimental; and the deepening conservation phase, on which a fundamental step was given in 2002, when the Shanghai Municipal Government issued the ‘Legislation for the Conservation of Historical Areas and Heritage Architecture in Shanghai’, creating a conservation system that is participated by the authorities, academic institutions, design institutions and construction companies. The article also stresses the need to provide for a special system of architectural heritage conservation in Shanghai, acknowledging the specificity of its cultural heritage, administrative system, legislation, codes, building technologies and materials; as well as its particular historical situation.

KEYWORDS Shanghai, historical architecture, conservation methodology and model, architectural heritage, stylistic restoration, protective restoration

Every nation and every culture show creativity in their cities and architecture, in which the world’s rich diversity is presented in the most concentrated and perfect way. Like American philosopher, essayist, and poet Waldo Emerson said in the 19th century, ‘The city exists relying on memory’. A city’s past, present, and future are connected by cultural relics and architecture, as well as by the collective memory of the people. Shanghai is a city full of the accumulation of historical and cultural heritage. Its rich and diverse architectural culture is the treasure of the city. Especially during the 19th and early 20th centuries, Shanghai’s urban structure and form, city planning, architectural types and styles, infrastructure construction and city administration and community life, are considered as the model of modern China. Meanwhile, modern urban society and urban lifestyles were gradually formed, continuously progressed, interwoven and interacted with various cultures, creating a unique cosmopolitan culture.

The rise of the idea of architectural heritage conservation in Shanghai was a slow process. During the rapid

urban development in the 1980s and 1990s, about 30 million m² old buildings were demolished, and the historic urban centre was completely changed. After that, the conservation of architectural heritage began to be seriously considered. However, due to the differences in cultural tradition, administrative system, building regulations, building technology and materials, as well as the current complex situation formed throughout the history, the international charters of urban and architectural heritage conservation cannot be fully applied in Shanghai; a situation that has called for the experimentation of new conservation modes. After nearly 30 years of exploration, an initial architectural conservation system consisting of ranking criterion, institutions, and conservation modes has been established. Numerous experiments were made in the restoration, extension, displacement, addition, and reconstruction of historic buildings; in the conservation of the historic urban landscape; and in the renovation, regeneration, and reuse of architectural heritage. All these efforts have delineated architectural heritage conservation

mechanisms and methods conforming to the characteristics and reality of historic architecture in Shanghai. Meanwhile, the Municipal Government has established a comprehensive cooperative and coordination platform between government departments such as cultural relics management, urban planning management and housing management, and research, teaching and design institutes.

The Context of Historical Architecture in Shanghai

The city of Shanghai has developed under special geopolitical and economic conditions. The Western culture first influenced Shanghai in the middle of the Ming Dynasty with the spread of Christianity. But it was not until November 1843 that Shanghai was opened to international trade as one of the Treaty Ports, that it started to undergo a drastic and rapid change. Since then, and during more than 170 years, all kinds of cultures from China and abroad co-existed, and were merged and transformed in Shanghai. The special geopolitical and economic development made the city a remarkable metropolis. Regarding architecture in Shanghai, some of it were copies of Western architecture fitting the particular social condition, while others were the revival of traditional Chinese architecture so as to respond to the new trends of world architecture. Shanghai became the birthplace and centrepiece of modern Chinese architecture, which incarnated the new thinking, new times, and new spirits. The compatibility and diversity of architectural cultures concerning prototype, form, type, structure and technology, etc., are the architectural heritage legacy of Shanghai.

By the end of the 19th century, Shanghai entered an 'era of extension'. With the rapid development of the urban economy, city construction activities were also prosperous. A lot of new building types emerged in this period, including banks, stock exchanges, offices, museums, clubs, department stores, post offices, fire stations, villas and urban houses, etc. In most cases, the form, function, material and structure of these buildings were directly transplanted from Europe and the United States. Cinemas, railway stations, telegraph and telephone stations, as well as infrastructural facilities such as power plants, gas plants, water plants, prisons, and all kinds of factories, appeared in Shanghai only shortly after they were first developed in the West.

The particular political and economic conditions led to an all-embracing 'Shanghainese Culture' which, includes almost everything from Western cultures, traditional Chinese culture, and the local culture. Architecture

in Shanghai in the early modern period covered nearly all the styles from different places and time periods, being a lively history of world architecture and a panorama of world history. Western architects and Chinese architects educated in Western architectural schools introduced European architectural culture to Shanghai. They built a large number of buildings with both artistic and practical values, completely breaking the traditional Chinese architectural prototype of form and space. From the late 19th century to the 1930s, nearly 23 million m² of *lilong* houses were built in Shanghai by following the real estate mode of development of Western cities; being one of the most characterised archetypes of the mixture of Chinese and Western architectural forms and lifestyles (Figure 1).

The construction of modern architecture and modern infrastructure are closely linked in Shanghai. Architecture and urban space are integrated into a whole, forming an unprecedented urban streetscape. Due to the characteristics of urban structure and fabric, most buildings are featured with a dominant façade, in harmony with the city streets. That is, buildings became a part of the city, and the city became the spatial extension of the buildings.

Another important feature of Shanghai's architecture and urban space in this period is internationalism. Until the end of the 19th century, Shanghai had been a stage for Chinese and foreign architects to cooperate and compete. Some of their works reached a high international standard and were innovative by combining with the local Shanghai character. The internationalism of Shanghai's modern architecture represented an open social value of its culture and lifestyle. From imitation and follow to modification and transformation, all have been a harmonious and contradictory part of Shanghai's urban environment.

The clash between different cultures, might in some cases destroy the native culture of a city. But in Shanghai, it has become an engine for the flowering of urban culture, forming a distinctive 'Shanghainese Culture'. Compatibility is a critical feature of 'Shanghainese Culture'. Reflected in architecture, we can find the collage resulting from the superposition and compromise between different architectural cultures. Thus, the architectural and urban form of Shanghai is complex and rich, containing both harmony and contradiction, both historical accumulation and modern mutation. It is a precious heritage of Chinese architecture and a treasure recipient of World architecture. It shows the mixture of a variety of architectural styles; coexistence of novelty and elegance, luxury and simplicity, creativity and speculation, and playfulness and serious art. Some are masterpieces while others are

Figure 1 Coexistence of the early-twentieth-century *lilong* houses and the late 20th century high-rise buildings (Source: Institute of Shanghai Architectural Design and Research Co., Ltd)

standard works, some are truly innovative while others are patchwork and eclectic; all these common buildings have shaped the unique urban built environment of Shanghai. Shanghai and the Shanghaiese are created in this built environment, whose historical and cultural significance is therefore evident.

The architectural heritage of Shanghai includes physical objects and images on the one hand, and people's ideas, beliefs, social paradigm and systems on the other. Each era will become the tradition for the future, and each era has inherited and developed traditions in the past. The inheritance and development of tradition are the legacies that this era can leave for the future era, as a historic model for the behaviour and belief of the coming generations. The understanding and conservation of historical relics and architecture imply the value of the city, our selection of the history, and our selection of the city's future. Architecture heritage conservation is related to the places we inhabited, the survival of the city and society, as well as the continuation of China's history and culture.

Shanghai's historical buildings are scattered in the centre of its urban area. Thus, first of all, we should take various scales into consideration, including single buildings, streetscapes, and urban blocks. Secondly, we should fully develop human resources to maintain the characteristics of Shanghai's diverse cultures and lay a sound foundation

for the future. Finally, we shall take the urban design and architectural conservation into account together to keep the character of the urban space and the urban landscape of Shanghai.

The Development of Architectural Heritage Conservation in Shanghai

Since Shanghai was listed among the 'National Historic Cities' in 1986, the conservation of the city's architectural heritage has undergone three main phases, namely: preliminary, experimental, and advanced phase. Generally speaking, the first phase is dated from 1986 to 1994. A key event during this period is the issue of *Administrative Measures for the Conservation of Outstanding Historic Buildings of Shanghai in Modern Times* (SMG [1991] No.8) by the Shanghai Municipal Government in December, 1991. This historic document marks the formation of a joint architectural conservation institution composed of the Bureau of Urban Planning Administration, the Bureau of Housing and Land Resource Administration, and the Commission of the Cultural Relics Administration. The second phase starts in 1994 when the *Third Batch of Outstanding Historic Buildings in Modern Times* was issued, to 2001 when the *Master Plan of Shanghai (1999–2020)* was promulgated. The 2001 Master Plan contains the

‘Comprehensive Conservation of the Historic City’ and the ‘Conservation Plan of the Historic City Centre,’ which laid the legal foundation for a comprehensive conservation of the city’s architectural and cultural heritage. The third phase dates from 2002 until today. The key legislative documents promulgated during this period include the *Regulation for the Conservation of Historical and Cultural Featured Areas and Outstanding Historic Buildings* issued in July 2002, the *Fifth Batch of Outstanding Historic Buildings* issued in 2015, the *Conservation Plan for the Historic City* which goes on with the *Outline of the Master Plan of Shanghai (2015–2040)*, and the revision of the conservation plans for Historical and Cultural Featured Areas. In the *Outline of the Master Plan of Shanghai (2015–2040)*, the conservation of the historical and cultural heritage and outstanding historic buildings is considered as the vital foundation for the development of the city, strengthening the concept of ‘integral conservation’.

The Preliminary Phase (1986–1994)

The preliminary phase initiated in Shanghai after a long period of neglect in the conservation of historical, cultural and architectural heritage. In the 1980s, large-scale urban development and reconstruction resulted in irreparable losses and damages to the city’s historic architecture and urban landscape. After that, a cooperative institution composed of the Bureau of Urban Planning Administration, the Bureau of Housing and Land Resource Administration, and the Commission of the Cultural Relics Administration started to take shape. Considerable efforts were made to explore an efficient mechanism for the conservation and management of architectural heritage. However, due to the lack of surveys and research on architectural history, and also lacking a long-term plan, architectural conservation during this period tended to focus merely on individual buildings and was rather expedient.

In 1989, the concept of the conservation of ‘Outstanding Historic Buildings in Modern Times’ was put forward in Shanghai, being the first of such kind produced in mainland China. In the same year, the Shanghai Municipal Government issued the *First Batch of Outstanding Historic Buildings in Modern Times*. 59 historic buildings were listed in the first version of the batch, and two more buildings were added in a later version, meaning that the conservation and management of these 61 historic buildings would follow the relevant provisions for the conservation of cultural relics. In 1994, 175 buildings were listed in the *Second Batch of Outstanding Historic Buildings in Modern Times*. And in 1999, 162 buildings were added as the third

batch. Thus, 398 buildings have been hitherto listed as ‘Outstanding Historic Buildings in Modern Times’ and are protected according to the relevant legislation.

On December 5, 1991, the Shanghai Municipal Government issued the *Administrative Measures for Outstanding Historic Buildings of Shanghai in Modern Times*, which is the first legislation for the conservation and management of architectural heritage in China and has played a significant role in the conservation of historic architecture in Shanghai. It was revised and re-issued on December 14, 1997. Buildings affected for this legislation were classified into three conservation ranks, namely: National Key Cultural Relics, Cultural Relics of Shanghai, and Outstanding Historic Buildings of Shanghai.

The Experimental Phase (1994–2001)

The key event in the experimental phase is the making and promulgation of the *Master Plan of Shanghai (1999–2020)*, which was initiated in 1993 and sanctioned by the central government in 2001. This master plan contains directives for the ‘Comprehensive Conservation of the Historic City’ and ‘Conservation of the Historic City Centre’, and became a guideline for experimentation in architectural heritage conservation during this period. In 1999, the ‘Master Plan of Shanghai—On the Conservation of the Historic City’ was completed, listing 13 National Key Cultural Relics, 113 Cultural Relics of Shanghai, 337 Outstanding Historical Buildings in Modern Times of Shanghai, 82 Cultural Relics of district or county level, 21 Memorial Places, and 15 Ancient Cultural Ruin Protection Zones. It also designated 11 Historical and Cultural Featured Areas in the historic city centre, covering an area of 13.85 km² in total. These Historical Featured Areas include historical streets and urban blocks, the areas adjacent to historic architecture, and buffer zones surrounding historical sites. The plan further designated four Historic Towns, three Scenic Tourist Areas, and two Natural Preservation Areas in the suburbs of Shanghai. The 1999 Plan emphasised the concept of ‘integral conservation’ in the historic city centre, treating streets, street blocks, and architectural clusters as integrated parts of the urban space. It also classified architectural heritage into preserved and reserved buildings; designating the ranges of preserved property, reserved property, buffer zone, and limited re-development area respectively; and providing conservation regulations for each category.

During the last three decades of the 20th century, the large-scale urban reconstruction of the historic city centre resulted in the demolition of a significant number of

Figure 2 View of the renovated *lilong* houses in Xintiandi (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

Figure 3 *Lilong* houses in Tianzi-fang, Taikang Road (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

historic buildings. By the end of the century, the damage brought by urban development had been widely recognised by the whole society. The conservation of *lilong* house (literally means alleyway house), which was a distinctive type of urban residence in Shanghai in the early 20th century, and which constituted the greatest part of its historic city centre, received particular attention at the time. The re-development of the old *lilong* house Taiping-Bridge Area was initiated in 1996. By 2001, the first phase has almost been completed, covering a total area of 3 km², and is well-known as Xintiandi (literally means 'New World'). This project tended to explore the commercial potential of historical urban area and however, generated broad discussion on the proper way for the conservation of historical residential buildings. This debate was especially intense when referring to the change of the original residential purposes for commercial usage (Figure 2). Several projects initiated after Xintiandi followed its pattern, such as the re-development of Shangxian-fang and Jianye-li areas. The commercial use of historic buildings and urban areas remain controversial thereafter. Xintiandi established a model for the renovation of historical residential areas, but it is not the only model. The redevelopment of Tianzi-fang at the same period is an alternative for the conservation and reuse of historical urban areas (Figure 3).

Another project worth mentioning is the restoration of the Bibliotheca Zi-ka-wei, which was built in 1847. This project was carried out following strictly the conservation administrative procedures. The conservation design was made according to the results of structural testing and was implemented upon the approval of a committee of professional consultants. During this period, the renovation and reuse of industrial heritage also started to be a matter

of concern. The ideas developed in this period were to be widely adopted before and after the 2010 Shanghai Expo.

The Advanced Phase (2002 to the present)

On July 25, 2002, the Shanghai Municipal Government issued the *Regulation for the Conservation of Historical and Cultural Featured Areas and Outstanding Historic Buildings*, which became effective on January 1, 2003. This legislative document marks the entry of Shanghai's architectural conservation to an advanced phase. It enlarged the conservation area from individual buildings or building complexes to the city scale, extended the range of heritage architecture from the assets built before 1949 to assets built 30 years ago, and endowed the force of law to architectural conservation regulation. This regulation provided a solid foundation for the conservation of Historical and Cultural Featured Areas and Heritage Architecture in Shanghai.

In November 2003, the Shanghai Municipal Government sanctioned the *Revised Boundary of the Historical and Cultural Featured Areas in the City Centre of Shanghai*. This document redefined 12 Historical and Cultural Featured Areas in the city centre of Shanghai by merging, fixing and extending the 11 Historical and Cultural Featured Areas and 234 historic street blocks designated previously. The revised boundary enclosed a total area of 26.96 km², covering about one third of the built area of Shanghai in 1949. From 2003 to 2005, the conservation plans for the 12 Historical and Cultural Featured Areas were subsequently completed, clearly designating the boundaries and preserved elements in the areas, and categorized the buildings within such areas as preserved historic buildings; reserved historic buildings; ordinary historic buildings;

Figure 4 Shanghai Concert Hall after relocation and renovation
(Source: Photograph by Xu Zhigang)

buildings to be demolished; and other buildings. Each category should therefore be treated according to relevant plan and administrative regulations.

Two conservation projects completed in 2003 marked the beginning of a new period of architectural conservation in Shanghai. One is the shift and renovation of the former Nanking Theatre (today's Shanghai Concert Hall) which was built in 1930 (Figure 4). The other is the restoration and renovation of the former Headquarters of the Merchants Steam Navigation Company on the Bund. The latter one tended to restore the appearance of the building to its original look, and got a satisfactory result.

In order to establish the most stringent administrative institution for architectural conservation, a Committee for the Conservation of Historical and Cultural Featured Areas and Outstanding Historic Buildings was founded, composed of ten more municipal bodies, including the Development and Reform Commission, the Bureau of Finance, the Construction Committee, etc. This committee provided a cooperative platform for better coordination regarding the administration, financial, and policy-making

affairs of architectural conservation. Meanwhile, an interdisciplinary committee consisting of 20 experts from the fields of urban planning, architecture, cultural relics, history, cultural studies, sociology, and economics was founded, becoming responsible for the designation, adjustment and revocation of Historical and Cultural Featured Areas and Outstanding Historic Buildings, as well as for providing advices and consultation to the municipal authorities regarding policy-making. In December 2003, the Shanghai Construction and Administration Committee issued the *Regulations of Technical Procedures for the Restoration of Outstanding Historical Buildings*, which was listed among the 'Code for Engineering and Construction' in Shanghai.

On August 2, 2004, the Shanghai Municipal Government held a meeting on the conservation of the Historical and Cultural Featured Areas and Outstanding Historic Architecture. Han Zheng, the then Mayor of Shanghai, declared during this meeting that architectural conservation should be considered as important as the responsibility to history. Following his words, it is deemed a way of development that required a change of mind, and deserved more efforts and attentions. In September 2004, the Shanghai Municipal Government issued the *Notice on the Improvement of the Conservation of Historical and Cultural Featured Areas and Outstanding Historic Buildings* (SMG [2004] No. 31). The document calls for the implementation of 'the most stringent and scientific institution' for the 'overall planning, comprehensive conservation, innovative reuse, and rigorous administration' of architectural heritage. This was followed in October that same year by an international seminar on architectural conservation, which was held in Shanghai.

In 2005, the Shanghai Municipal Government issued the *Fourth Batch of Outstanding Historic Buildings* which consisted of 234 historic building sites. Including the previous three batches, there had been 632 sites, that is, 2,138 historic buildings being listed as preserved architecture, covering a total building area of 4.3 million m². Relevant administrative regulations were made by the Bureau of Housing and Land Resources for the conservation of the four batches of registered heritage architecture, regarding their conservation categories, key conservation parts, conservation areas, and the buffer zones around conservation areas. A general survey was carried out so as to examine the state of conservation of the registered historic buildings, and conservation proposals were made accordingly. Meanwhile, a comprehensive investigation of all the garden villas, multi-storey apartments, new-style *lilong*

compounds and *shikumen* houses in Shanghai built before 1949 was conducted. A preliminary database of both the registered historic buildings and unregistered ones was then established. Comprehensive investigation of 337 sites of registered Outstanding Historic Buildings were completed between 2002 and 2004 and 234 more were completed in 2006, while specific advices for restoration and proper use were prescribed to each building. In 2015, the Fifth Batch of Outstanding Historic Buildings was issued, adding 426 sites of historic buildings into the preservation list. Thus far, Shanghai has 669 cultural relics of various levels, including 29 national key cultural relics, 238 cultural relics of Shanghai, 402 cultural relics at a district or county level, 28 ancient cultural ruin protection zones, 10 historical and cultural towns of national level, 4,422 registered relics, and 1,404 Immovable historical relics. Among them, there are 61 cultural relics of Shanghai and 571 preserved building complexes (including about 1,998 buildings).

Also in 2005, the *Historical and Cultural Featured Areas in the Suburban Areas and Pudong New District* was promulgated, designating 32 Historical and Cultural Featured Areas in the suburban areas and Pudong New District, covering a total area of 14.26 km². The conservation plans for these Featured Areas were initiated the following year. According to the statistics of 2006, a total area of 12 million m² buildings built prior to 1949 were included in the Historical and Cultural Featured Areas, encompassing 1.47 million m² of garden villas, 1.19 million m² of multi-storey apartments, 3.35 million m² of new-style *lilong* houses, and 6.17 million m² of old-style *lilong* houses.

In order to ensure the 'integral conservation' of the historic urban areas, the *Conservation Plan for the Roads in the Historical and Cultural Featured Areas in the City Centre of Shanghai* was issued in 2006. In 2007, the Shanghai Municipal Government sanctioned the *Several Opinions on the Planning and Management of Historic Roads (Streets) in Shanghai* proposed by the Shanghai Urban Planning Bureau, designating 144 historic roads located within the Historical and Cultural Featured Areas. Among them, 64 roads shall be conserved as a whole, while their road lines shall be kept permanently, the building styles and scales alongside shall be kept, and the road trees shall be protected as an integrated element. Also detailed conservation plans for Wukang Road, South Maoming Road, Yandang Road, and Shaoxing Road were proposed and implemented. The conservation of the full length of Wukang Road, measuring 1.17 km, was initiated in 2007. In 2008, the Conservation Plan for Wukang Road was carried out, and

was completed in 2009. And in 2011, Wukang Road was entitled 'Outstanding Historical and Cultural Street' by the Ministry of Culture and State Administration of Cultural Heritage. Between 2011 and 2012, conservation guidelines were produced for the 42 historic roads in Xuhui District, covering a total length of 39.3 km, and enclosing 77 street blocks within. There were 4,051 buildings in this area, among which 332 were registered preserved buildings and 1,790 were reserved buildings. In 2014, an investigation was carried out jointly by the Bureau of Urban Planning and Land Resources and Bureau of Housing Administration of Shanghai, building a separate document file for each Outstanding Historic Building located in the Huangpu and Changning Districts. In 2015, the extended area of the Historical and Cultural Featured Areas, the featured street blocks, and the core conservation units were designated; together with the drafting of the Regulations of the Conservation Technique for the Fifth Batch of Outstanding Historic Buildings.

During the advanced period, many high-quality conservation projects have been completed. The most prominent ones are the preservation of the former Headquarters of the Mercantile Bank of India (2000); the restoration of the former Headquarters of the Merchants Steam Navigation Company initiated in 2001 (Figure 5); the preservation of the former Headquarters of the Shanghai and Hongkong Banking Corporation (2002); the conservation and renovation of the Waitanyuan area (literally means the origin of the Bund, 2002–2012, Figure 6); the preservation of the former Headquarters of the Chartered Bank (2004); the renovation of the former Abraham, E. Building (2006–2012); the renovation of the former Abattoir of the Shanghai International Settlement (2006–2007); the preservation of the former École de France (today's Science Hall) (2011–2013); the preservation of the former Siemssen & Co. Building (2011–2013); and the preservation of the former Headquarters of Russia–China Bank (2011–2014), among others.

Reflections on the Architectural Conservation in Shanghai

Due to the distinctive cultural tradition, administrative system, building legislations, building technology and materials, and the current complex situation, architectural conservation in Shanghai is confronted with very unique administrative and technical problems. On the one hand, more efforts should be put for the preservation of the remaining architectural heritage. On the other hand, new modes, institutions, techniques and crafts should be

Figure 5 The former China Merchants Steamship Navigation Building after restoration (Source: Photograph by Xu Zhigang).

Figure 6 Bird view of Waitanyuan (the north end of the Historic Bund) after renovation (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

explored for the better conservation of architectural heritage.

Shanghai has been undergoing rapid and constant changes through history. In a book published in 1916 entitled *The Gateway to China: Pictures of Shanghai*, the British American writer Mary Ninde Gamewell (1916, 16) described that ‘Changes are going on continually all over the city. Day by day old buildings rotten and unsanitary, are disappearing and modern ones rising in their place. It is to be feared that many of the ancient landmarks dear to the antiquarian will soon be gone.’ This description is also true to Shanghai in the following one hundred years. Some historic buildings were demolished amidst rapid economic development, while others were damaged in the sociopolitical upheavals. Still, others were destroyed to great extent after their original functions were altered, like original company and office buildings turning into residential buildings, or original residential buildings being occupied with more residents than they can accommodate. Besides, other common problems are the unapproved addition of rooms, arbitrary change of outlooks, and distasteful replacement of the original architectural form with new design. In a meeting on the conservation of heritage architecture held in March 2004, the heads of government departments and experts also pointed out that architectural restoration at present stage was only a certain degree of whitewashing, resulting in the situation of ‘vigorous construction and serious destruction’.

Between the 1980s and the mid-1990s, ‘change’ and ‘new’ went further to be the spirit of the city, and policy-making, administration, and action for heritage conservation gave place to urban development. Architectural conservation was regarded at that time as a conservative idea which could not keep up with the social progress, while the demolition of old buildings and neighbourhoods was regarded as a sign of modernisation. Meanwhile, many sophisticated old buildings with distinctive historical, cultural and architectural values were demolished for the sake of profit and quick success in the market, and replaced with modern buildings which can be found everywhere in the world, resulting in the permanent loss of the city’s identity. At present, only about one third of the 45 million m² buildings built before 1949 still remain, while only less than 1,000 *lilong* neighbourhoods out of 9,214 exist.

Furthermore, some new buildings had been added to the historic areas of the city in the 1960s and 1970s, while in the past two decades some high-rises were erected at the street corners of historic neighbourhoods. Many of these new buildings were not intendedly designed to fit the exiting historic urban landscape, and their improper usage make the situation even worse. The external appearance and interior spaces of many of the new buildings are now in unsatisfactory condition due to inappropriate use and change of function. Advertising boards, air-condition units, shop signs, and the unapproved room and storey

Figure 7 The Moller House and new buildings (Source: the author).

adding also affected the outlook of the buildings and their relationship with the urban landscape. Moreover, in some historic sites, the literal imitation of the historical architectural languages purposed by the newly-added buildings has led to unsatisfactory results, as is shown in the case of the redevelopment of the area adjacent to Moller House (Figure 7).

Social Collaboration for Architectural Conservation

As a renowned historical and cultural city, Shanghai has been placing greater emphasis on the conservation and regeneration of the historical heritage. In the past, when 'new' and 'change' were the primary targets for urban development; policy-making, administration, and action related to architectural conservation were absent, and comprehensive survey and study of historic architecture were also rather insufficient. Nevertheless, this situation has changed to a great extent. Now conservation and regeneration plans have been carried out, and significant progress has been recognised.

It is worth noting that the collaboration between government authorities, expert committees, and property owners is very important for the conservation of architectural heritage. Now in Shanghai, every phase of a conservation project; including project proposal, design proposal, and construction scheme, all need to pass a review meeting attended by the three parties. Some design and construction companies are also gradually building up experience and techniques to become professional conservation institutes. The conflict between infrastructural construction and architectural conservation, for example, is usually settled down with the cooperation of various parties. Coordination meetings attended by the competent government authorities, expert committees, property

owners, and construction companies shall be organised to solve all strategic and technical problems. Like in the construction of the subway interchange station for Lines 10 and 11 in 2009 affected the former Houston Court (built in 1929) in the neighbourhood. After co-investigation, the principle of in situ conservation was determined, and the subway construction scheme was to be submitted to a third-party examination regarding construction, pipelines, and transportation.

It is also worth noting that the research on the history of Shanghai has reached a new height. On the one hand, with the increasing attention paid on the conservation of Shanghai's historic cityscape and architecture since the 1990s, the number of Chinese and overseas scholars, as well as the research works they produced has been increasing significantly. While on the other hand, the scope of research has been broadening to a great extent to include politics, history, economics, society, laws, archives, urban planning, and architecture, as well as a series of annals, corpus, dissertations, atlas, architectural guidebooks, statistical materials, and monographs have been published. These academic efforts make up for the lack of information on Shanghai's historic buildings in the early stage of architectural conservation, laying an important foundation for further and advanced studies in the future. Meanwhile, a multi-disciplinary research field has also been established, being composed of the scholars from various disciplines including history, geography, sociology, archival science, archaeology, anthropology, literature, art and architecture; staff from various Government departments, and individual citizens. Great efforts have been put for the study, survey, analysis and research of the historical archives, urban theories, architectural sites, cultural relics, maps, and documents. Extensive and in-depth academic discussion has been carried out regarding urban social history, history of everyday life, structure and evolution of urban space, architectural history, and all aspects of urban culture and social life. Thousands of manuscripts have been published so far. Some refer to the study of the entire city, some are detailed study of a specific district, street, or land parcel, covering all historical periods of Shanghai from the ancient, modern to contemporary times. These studies approached the history of Shanghai from different angles and viewpoints, providing an extensive reference for the research of Shanghai's historic architecture.

Modes of Architectural Heritage Conservation

Since 2002, considerable achievements have been recognised in the conservation of architectural heritage in Shanghai. After years of exploration, a conservation

Figure 8 The former Shanghai Club on the Bund after renovation (Source: Institute of Shanghai Architectural Design and Research Co., Ltd)

pattern appropriate to Shanghai has been established in its preliminary stage, that is, conservation with use and conservation in use. Hitherto, a large number of conservation projects have been completed with high quality results, in which a variety of new functions have been brought to the historic buildings. Some of the original office buildings, residential buildings, and civic buildings have been renovated for offices, clubs, schools, while some industrial heritage buildings have been transformed into creative centres, offices, apartments, hotels, theatres, schools and so on (Figure 8). Regarding architectural restoration, projects carried out in recent years are by and large based upon the historical information obtained from careful investigation, study, survey, and research to determine the aim, key parts, and the referential historical styles for restoration. All the changes made in the history of the buildings are treated cautiously, and different methods are adopted according to their different types and qualities, such as restoration, addition, displacement, reconstruction, façade preservation, the demolition of illegal structures, interior refurbishing, etc. Stylistic restoration is the most widely adopted method in Shanghai as in the rest of the world, while authentic restoration is occasionally used in practice.

The conservation of historic residential architecture is an urgent issue in Shanghai. The rehabilitation of the Lanes 303 and 252 *lilong* houses in Penglai Road

conducted in the 1990s is well recognised as the first *lilong* conservation project in Shanghai, even though its primary focus was the improvement of the inhabitants' living conditions rather than the preservation of historic architecture. The historic residential architecture in Shanghai is composed of four main types, including *shikumen-lilong* house, new-style *lilong* house, single-family house, and representative historic residences. The most commonly used conservation methods are exemplified in these four recently completed projects: First is Xintiandi, which implied the demolition and the reconstruction of the buildings, changing their function into commercial use. Second is Jianye-li which also implied the demolition and the reconstruction of the buildings although keeping the original residential use. Third is Bugao-li, on which the original buildings were preserved, upgrading the residents' living condition. Fourth is Tianzi-fang, on which the original buildings and ownership were preserved, transforming the houses into commercial use. The reconstruction of Jianye-li particularly poses the problems of the conservation, administration, design, and development of heritage architecture, from which we can draw lessons in two aspects (Figure 9). First of all, architectural conservation shall not take the mode of real estate development, rather, it shall be supervised by government authorities and carried out by nonprofit institutions (Figure 10). Secondly, the proper conservation of *lilong* houses requires the development of experimental modes. As a significant number of *lilong* houses were built for real estate speculation, their construction standards were quite low. Their building condition continues to deteriorate through history partly due to the persistent elevation of the surrounding roads, which has lowered the ground level of *lilong* neighbourhoods, resulting in flooding during the rainy season. The buildings' moisture-proof layer has been destroyed and the weathering of wall brick is quite serious, particularly referring to *shikumen-lilong* houses built with brick-and-wood mixed structure. It is, therefore, necessary to consider the feasibility of reconstruction from both building materials and construction techniques, rather than simply demolishing the old *shikumen-lilong* houses. Also, the adoption of effective policy and economic measures to lower the population and family density in *lilong* houses is very important for the maintenance of building condition.

In effect, large-scale demolition and reconstruction is still the dominant way of urban development today. With the further improvement of Shanghai's economy, it is now practical to establish special funds for architectural heritage conservation, and search for multi-financing channels

Figure 9 Jianye-li after partial demolition (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

Figure 10 Jianye-li after reconstruction (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

for the conservation and restoration of historic areas and buildings.

Adding new parts or buildings in the historic areas is one of the challenging tasks of architectural conservation. The colour, details, and architectural styles of the new buildings should be carefully considered, giving especial attention to their volume and height. The addition of the former Andrew & George Building constructed in 1908 at the Bund area provides a useful exploration, which deliberately kept the original façade and cornice decoration of the building (Figure 11). But the quality of design is vital to ensure a satisfactory result. Another worth-mentioning project is the construction of a public service centre in the plot between the former Communication Bank (1948) and the former Russo–Chinese Bank (1902). Since 2003, a lot of design schemes have been proposed for the project. A simple, modern design with perfect proportion was chosen, implying the change to a Financial Museum in the future (Figure 12). There have also been some examples with relatively disappointing results. For instance, the newly erected buildings around St. Ignatius Cathedral at Xujiahui (Figure 13), which tried to echo the architectural style of the cathedral, but which finally meant the destruction of the historical environment.

Another important issue of architectural conservation is historical authenticity. Theoretically, the restoration design should strictly be based on historical documents and drawings since most buildings have undertaken certain changes in the course of history. But stylistic restoration should also be allowed if the historical archives are not available. The restoration of the Moller House is a successful project of stylistic restoration. As the first restoration of the building was deemed unsatisfactory, the second-time restoration carried out between 2008 and 2009 was based

on a much more elaborate study, and the original details and decorative craftsmanship were eventually restored. Another example is the restoration and renovation of the former Abraham E. Building: although the original design drawings were available, it was found that the building was not constructed according to the design. The project finally determined to restore the elevation following its current situation (Figure 14). However, the restoration of the former Tai Koo Building (1906) completed in 2011 is one of the failures in recent years. The inappropriately designed additional parts of the building have destroyed the original appearance of the elevation, and the style and details of the interiors lack of coherence with the rest of building.

In recent years, the conservation of industrial heritage has aroused increasing concern in Shanghai. In the policy-making aspect, Article Nine of the *Regulations for the Conservation of Historic and Cultural Featured Area and Outstanding Historical Buildings in Shanghai* laid the foundation for the conservation and reuse of industrial heritage, which stipulates that the workshops, shops, factories and warehouses that have been built for more than 30 years and which may represent the development of industry in China, can be identified as ‘Outstanding Historic Buildings’. On the side of practice, the renovation of the former industrial neighbourhoods into Tianzi-fang, M50, Bridge8, Shanghai Sculpture Space, 1933 Shanghai, MUSE, and other creative centres since the 1990s are good examples (Figure 15). Due to particular socio-historical reasons, many of Shanghai’s industrial buildings are scattered in the residential areas, shaping the rich and heterogeneous urban fabric of the historical city centre. This distinctive feature has resulted in the unique spatial characteristic of the creative industry parks which established

Figure 11 The extension of the former Andrew & George Building (Source: David Chipperfield Architects).

Figure 12 Shanghai Public Service Centre on the Bund (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

a new model for the development of services and creative industries in Shanghai and other Chinese cities. However, the reuse of industrial heritage still requires further explorations for a more diverse functional scheme. Meanwhile, the trend towards ‘de-creation’ in many creative industry parks need to be changed completely.

The last issue of architectural conservation is the establishment of relevant institutions. In July 2010, the Housing, Land and Resource Administration of Shanghai established a Centre for Historic Architecture Conservation Affairs which now takes charge of all the management administrative affairs concerning architectural conservation and conducts the regulation-making for the restoration techniques of the Outstanding Historic Buildings. Nevertheless, this centre is under the supervision of the Department of Housing Security, and its authority is quite limited. Furthermore, it is worth noting that architectural conservation is an inclusive enterprise encompassing urban planning; cultural relics preservation; social and cultural development; architectural technology, building materials and many other disciplines. Currently, architectural heritage conservation in Shanghai is under the administration of many different institutions including urban planning, housing management, and cultural relics

preservation; and the architectural heritage is further classified into various ranks and categories, such as the national level, the city and district level, the Outstanding Historic Buildings, the unmovable cultural relics of the city and district level. Thus, it is an urgent need to establish a unified institution to coordinate the architectural heritage conservation affairs in Shanghai.

(Translated by Yingchun Li)

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Figure 13 The high-rise buildings around St. Ignatius Cathedral at Xujiahui, Shanghai (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

Figure 14 The former Abraham, E. Building after restoration and renovation (Source: Institute of Shanghai Architectural Design and Research Co., Ltd).

Figure 15 The former Abattoir after renovation (Source: the author).

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