

# **Regeneration and sustainable development in the transformation of Shanghai**

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## **Abstract**

Globalisation has had an increasing impact on the transformation of Chinese cities ever since China adopted the open door policy in 1978. Many cities in China have been struggling with the challenges of urban regeneration created by the restructuring of the traditional economy and increasing competition between cities for resources, investment and business. The closure of docks, warehouses and industries, and the deteriorating position of traditional urban centres not only created problems but also created exceptional opportunities to reshape cities and create new functions. But this kind of process also generates a series of physical, economic and social consequences for cities to tackle. In many cases the problems exceed the capacity of the local community to adapt and respond. This paper examines a number of urban regeneration projects in Shanghai, in the hope of providing a better understanding of the process of urban regeneration in China and how best to ensure that such regeneration is sustainable. The paper reassesses the aims of regeneration, the mechanisms involved in the regeneration process and its physical, economic and social consequences, discusses how to achieve sustainable development in urban regeneration and makes recommendations for future action.

## **1 Introduction**

Global market forces and increasing globalisation are clearly playing a role in the transformation of cities and towns. In most countries urban systems are experiencing dramatic changes brought about by economic restructuring, continuous mass migration and the arrival of immigrants. Over the last 20 years the same kind of urban transformation has been observed in almost all Chinese



towns and cities, many of which have experienced explosive economic growth, improvement of individuals' quality of life and rapid urbanisation. The opportunities for urban expansion and economic growth have left a legacy of physical, economic and social consequences. Old harbours and factories have been closed because of their failure to cope with technological change or the contraction in manufacturing, local shops and traditional business have been wiped out by severe competition from new types of retail outlet like supermarkets and shopping malls, old houses and run-down inner-city areas, long deprived of adequate maintenance, have been torn down to make room for new building, old communities have been relocated to the outskirts of the city and in most cases ripped apart. In many cases these types of problems have exceeded the capacity of the local community to adapt and respond.

Now that many parts of China are going through the same kind of transformation that is taking place in the cities of most developing countries, it is becoming important to bring together the lessons learned from experiences in areas that have already undergone the transformation process, as a way of achieving a better understanding of the process of regeneration and how best to promote it. A particular concern is how to ensure that the regeneration process is sustainable, not only to secure economic revitalisation and make the best use of existing resources but also to take account of the wider public interest.

The present paper examines the redevelopment of Lujiazui and Xintiandi, two urban regeneration projects carried out in Shanghai in the 1990s, to provide an understanding of the regeneration process in Shanghai and the general transformation in people's ideas about urban regeneration policy during the period, before going on to make suggestions about keys to success and lessons to be applied to further urban regeneration in Chinese cities.

## 2 Urban regeneration in Shanghai

'Urban regeneration' was seen as way of revitalising declining cities in North America and Western Europe, where urban dynamics were affected by economic restructuring, the decline of cities relying on traditional industries and increasing social isolation [1]. Schemes for urban reconstruction, revitalisation, renewal and redevelopment schemes drawn up between 1950 and 1990 [2] were followed in the 1990s by schemes for urban regeneration, designed to achieve 'the regrowth of economic activity where it has been lost; the restoration of social function where there has been dysfunction, or social inclusion where there has been exclusion; and the restoration of environmental quality or ecological balance where it has been lost' [3]. Unlike other such schemes, schemes for urban regeneration aim to achieve a mixture of economic, social and environmental targets, and are particularly concerned with the sustainability of the city's growth.

The development and growth of Chinese cities follow some of the patterns established in developed industrial countries, though everything is happening much faster and on a much shorter time-scale. The special thing about the growth of Chinese cities is that the reform and open policy implemented in 1978 freed the cities from years of imposed urban policies restricting their growth and



forbidding population movement. Since then the new freedom has triggered explosive growth in towns and cities throughout the country. This growth and the resulting mass migration from rural to urban areas immediately encountered a huge shortage of public facilities, brought about by long-term neglect and lack of investment. Infrastructure, housing, offices, neglected neighbourhoods and the urban environment generally, all needed to catch up with an increasing demand fuelled by rapid economic growth.

Shanghai, an international metropolis in East Asia since the first half of the twentieth century, faced exactly this challenge, to upgrade its urban environment. Even though the local government cleared several slum areas in accordance with proposals made by the 1953 master plan, only a limited number of families benefited from the rehabilitation scheme. The lack of budget for infrastructure and housing led to deterioration in the physical environment of Shanghai, so that at the end of 1970s the city found itself overpopulated, underdeveloped and unattractive.

Many transformations in the post-reform era targeted run-down old inner city areas, areas of declining traditional industry and abandoned dockyards. Such changes can be seen in various places in the inner city and outskirts of Shanghai, where old houses have been torn down to make room for a more extensive road network, old neighbourhoods have given way to new shopping centres, traditional industries have moved out of the city centre to find more spacious accommodation, and docks were abandoned when new ports were established at locations nearer the sea. As many parts of Shanghai began to be transformed, local government was increasingly frustrated by the inadequate budget for infrastructure, housing construction and the renewal of inner-city areas, forcing practical consideration to be given to involving private finance and private developers in urban renewal programmes. In 1995 the SMG announced a series of policies to attract private finance to land development, the construction of infrastructure and, more particularly, urban renewal.

As the cost of leasehold land in city centres continued to increase, the cost of carrying out traditional rehabilitation projects in the city centre became impossibly high for both the public sector and the private developer. Many city dwellers were forced to move to new flats on the outskirts of the city. The pressure on developers forced many of them to tear down old buildings and replace them with high-rise buildings or high-density complexes in urban redevelopment projects. Efforts to preserve old buildings generally failed to compete with the compulsion to achieve the greatest possible commercial profit.

In the last few years, however, a change has begun to take place in people's way of thinking. People have become increasingly concerned about the lack of character displayed by new large-scale developments, not only in new satellite towns but also in Shanghai's historical centre. At the same time people started to become aware of a different approach, based on the 'adaptive reuse' of buildings and inspired by pioneering work in European and American cities. Originally such projects were limited to individual historical building with high preservation value. Old villas and apartments built in the early 1900s were converted into restaurants, teahouses or hotels. Later the experiment was



extended to the larger-scale redevelopment of whole areas. The redevelopment of Xintiandi, as will be explained later in this paper, is a typical example. Not only has the adaptive reuse of buildings occupying an area of 30,000 m<sup>2</sup> preserved a historical physical continuum but, more significantly, finance for the project came from private sources rather than government subsidies, which meant that the project was deeply concerned with achieving economic sustainability.

Experience in Xintiandi has provided a fresh stimulus to local officials and private developers to look for alternative approaches to urban regeneration. In recent years the shift in thinking has reflected greater concern for the social consequences of these transformations to old neighbourhoods. Many critics of current urban regeneration programmes argue that historical continuity requires preservation of both the physical and the social environment if the pattern of historical and cultural development is not to be lost. Early projects totally ignored the issue of social justice: the end results only benefited a special group of upmarket consumers and certainly not the original communities. The new way of thinking has led to today's new style rehabilitation plan. In today's rehabilitation projects most of the original residents are relocated back to their old neighbourhood as soon the upgrading work is complete.

### **3 The challenge of sustainable development**

While sustainable development aims to combine environmental sustainability, economic efficiency and attention to social needs [4], in practice it is easy to lose sight of the aim of urban regeneration and the factors that lead to success. Current experience with urban regeneration in Shanghai and other Chinese cities shows that the prevailing emphasis is still on economic growth, so that urban regeneration is often treated as property development and the success of the project is often mainly measured by the level of return on investment. These attempts take account of market forces and the interests of end users but fail to address the other two important aspects of urban development, social needs and environmental sustainability. In the process of urban regeneration in Shanghai, two issues have been ignored which need to be seriously addressed, social justice and the preservation of historical buildings.

Social justice means being concerned with the needs of the least well-off and ensuring that those needs are not ignored in the process of transformation. China has a series of policies at central and local level dealing with relocation and rehabilitation, most of which focus on economic compensation. This approach helps to reduce the economic loss suffered by displaced residents but takes little or no account of the existing historic and social fabric linking the local community with the place.

The idea of preserving old industrial buildings, folk housing and traditional city life, based on ecological considerations, is concerned with the minimisation of waste and the preservation of diversity. In Chinese cities old buildings are often seen as obstacles to new development but in fact they provide exceptional opportunities for the reuse of a historic legacy. Conservation can make possible



the maintenance of the historic continuum of city life, something that is quite impossible if old buildings are replaced by new mass-produced high-rise. The lesson to be learnt from the failure of traditional conservation plans is that conservation needs to take into consideration the influence of market forces. The aim of conservation is not achieved when old buildings are left to rot inside a conservation area. Rather conservation needs to provide new functions and new driving forces for old buildings. A number of good examples of conservation can be found in America and Europe, for example the reuse of a Fiat factory in Italy as a shopping centre.

The key to improving the process is balanced incremental development, ensuring that the attraction of new functions takes place gradually and is recognised by the locals, rather than a sudden big bang approach, in which the traditional urban fabric is torn apart and a large amount of space and new faces with no interest in the local environment suddenly come on the market. Achieving this goal will require involvement by both the government and the private sector. Experience in Shanghai shows a continuing increase in private sector involvement in urban regeneration projects. Since the public sector lacks the experience, know-how and financial mechanisms required to put into practice all its plans for upgrading, it increasingly depends on private investment, as in the case of the redevelopment of Lujiazui, Shanghai's new central business district. The creation of public-private partnerships makes it necessary to define the way the two sectors are to share responsibility for ensuring the success and sustainability of the urban regeneration projects in which they are involved.

#### **4 Lujiazui financial centre: Shanghai's new central business district**

Lujiazui is a 1.7 km<sup>2</sup> area situated on the east bank of the Huangpu river in an area known as Pudong, which lies immediately opposite the Bund, Shanghai's historical centre and site of the former foreign settlement. Historically Lujiazui's development followed the growth of the port of Shanghai. But with no bridges or tunnels to link Pudong with downtown, the development of Lujiazui, as of other parts of Pudong, had lagged behind for years. In Mao's time, a number of heavy industries, with villages to house their workers, were established in the area adjoining the old harbour, ferries and warehouses. Over the years the quality of life in the Pudong area deteriorated steadily because of the lack of investment in public facilities and the lack of maintenance of the area's residential properties. Environmental pollution produced by the factories increased the problems of pollution faced by local communities.

The idea of redeveloping Lujiazui and its hinterland emerged at the end of the 1970s. In 1988, after years of research and feasibility studies by local planners, the city decided to reconstruct Lujiazui's 1.7 km<sup>2</sup> to create a central business district as the core of Pudong's 28 km<sup>2</sup> Lujiazui commercial and financial district. It is worth noting that this plan came about in part thanks to interaction with foreign expertise as provided for example by the Paris-based Institute d'Aménagement et d'Urbanisme de la Région Ile de France (IAURIF - Ile-de-



France Region Urban Planning Institute), which provides technical assistance to the Shanghai municipal government (SMG) on metropolitan planning issues [5]. Since the locals had little experience of developing central business districts on such a scale, in 1992 they called in architects of various nationalities, based in the UK, France, Japan and the US, to provide ideas and know-how for the project. The architects were invited to tender for the provision of consultancy services. A detailed plan for Lujiazui, based on the five plans, was finalised in the same year [6]. The plan focused on quality and sustainability, and took into account both economic sustainability and environmental quality.

The plan as finalised, like other plans prepared by the same architects, paid little attention to the existing situation on the site and the possibility of reusing old buildings, nor was proper consideration given to the social consequences of relocating the local community. This might be explained in part by the poor condition of the existing buildings. But the key factor was that the SMG wanted to create a memorable skyline for Shanghai's future central business district, and so wanted Lujiazui to be built as a futuristic 21<sup>st</sup>-century international financial centre, in sharp contrast to the 19<sup>th</sup>-century European-style Bund on the other side of the river.

Thanks to enormous publicity and a strong international profile, the redevelopment of Lujiazui attracted great interest not only from private developers in the region but also from foreign investors. To stimulate investment in Lujiazui, the public sector experimented with a series of public-public and public-private partnerships for projects in land development, infrastructure development and real estate development, involving not only different levels of government but also banks and private investors. Fortune World Company, a joint venture between a local public company and a Thai investor, is one successful example of public sector collaboration with the private sector. In this case funding was obtained through private financial channels to develop the 50 hectare site adjoining the Huangpu River in Lujiazui.

Massive investment has gradually managed to change the face of Lujiazui. In just ten years, with more and more banks, insurance companies and commercial businesses setting up branches in Lujiazui, old polluted factories have disappeared from the skyline of Lujiazui, to be replaced by offices, business centres, parks and large areas of green space. The new image of Lujiazui has attracted public attention and encouraged tourism. The resulting increased demand for entertainment, restaurants and shops led to the government to decide to add such functions to an area where originally only offices and hotels were permitted to be built. Substantial amounts of public money were invested in improving the quality of the urban environment. To increase accessibility the local government built roads, a metro, bridges and tunnels. It also cleaned up the once polluted river and replaced slum houses with green space.

The few traditional buildings which, thanks to the protection provided by the conservation plan, were left untouched by the redevelopment of Lujiazui, were converted into exhibition halls or museums. Most of the old industrial buildings, warehouses and homes were torn down to make way for new skyscrapers. This decision reflected the belief shared by many locals at the beginning of the 1990s:



the future of Shanghai was represented by economic growth and modern architecture designed by American and European architects; old buildings and neighbourhoods represented barriers to Shanghai achieving its ambitions for the future. Critics however argue that the lack of any historical memory in its internationalised architectural image has transformed Lujiazui into a western city and failed to provide the Shanghainese with a local identity. The debate continues, but there are no easy solutions. Some years later, the Xintiandi redevelopment project attracted much attention because of its alternative approach to urban redevelopment.

## 5 Xintiandi: where Shanghai's past meets its future

Xintiandi (Chinese for 'new heaven and earth') used to be a 30,000m<sup>2</sup> neighbourhood located near Huaihai Road, a well-known high-class shopping thoroughfare in the Luwuan district in central Shanghai. The houses in this neighbourhood were Shikumen lane houses, a typical local style of house combining traditional Chinese features with elements of European architecture, an architectural symbol of early 20th-century Shanghai. One of these old Shikumen houses, which later became a local museum, was the birthplace of the Chinese Communist Party. Over the years overcrowding and lack of maintenance had led to the neighbourhood becoming sadly dilapidated.

The idea of redeveloping Xintiandi emerged in 1997. The local district government wanted to redevelop the whole 52 hectare Taipingqiao area, of which Xintiandi formed part. It therefore asked Vincent Lo, director of Hong Kong's Shui On Group and a former business partner of the local officials, for advice. One stipulation was that the old party hall had to be preserved. Appreciating the prime position occupied by the Taipingqiao area, Lo decided to invite the famous US firm of Skidmore, Owings and Merrill LLP (SOM) to prepare a plan. Accordingly, SOM devised a plan to redevelop, reuse and improve the functioning of and facilities provided by the inner city. The plan divided the area into four parts:

1. A historical area preserved as a business, restaurant, entertainment and tourism complex, with Xintiandi as its major part
2. The Corporate Avenue international business district
3. The Lakeville premier residential area
4. A shopping and entertainment centre and a 40,000 m<sup>2</sup> lake to form the centre of the area.

This plan was the first to introduce the idea of preserving the historic Shikumen houses. Vincent Lo invited the Boston architect Benjamin Wood and his firm Wood and Zapata, Inc. to take this bold idea further in his design. The original plan is said to have involved knocking down most of the Shikumen houses and replacing them by a new version of old Shanghai. Wood however wanted to take a different tack. Because the old Shikumen houses were cultural artefacts symbolising the meeting of East and West, he suggested that part of the historic fabric of Shanghai should be preserved and adapted for other purposes.



Singapore's Nikken Sekkei International Ltd assisted in the coordination of the construction work. Tongji University, a local university famous for the training it provides in architecture and urban planning, was invited to advise on the design and preservation of the Shikumen houses. The eventual design produced masterly interiors in beautifully renovated former houses, with stone gates in front, warm brick walls and terracotta roofs. It turned a dilapidated neighbourhood into a vibrant mixture of businesses thronged with shoppers, gourmards, filmgoers, coffee sippers, music mavens, and club hoppers.

Xintiandi was one of the earliest privately financed projects to preserve old buildings in a city, a task normally only undertaken by the public sector and publicly financed. The total amount invested in Xintiandi amounted to 1.3 billion Yuan (US\$ 0.16 billion). The Shui On Group took a chance on the future of Xintiandi at its own risk. The idea for the project emerged at the beginning of the Asian economic crisis. The entire Asian real estate market slumped. The banks were doubtful about the economic return on the project, since the investment required to preserve an old building, 20,000 Yuan (US\$2,415) per m<sup>2</sup>, is several times higher than required for new building. In the end most of the investment in the project came from the company's own resources. The loan provided by the bank, US\$45mn (30% of the total investment), only came through at the end of 1999, a year after the start of the project [7].

To the surprise of most investors, the Xintiandi project proved to be a hit, both critically and commercially. Xintiandi became a popular entertainment hub in a city centre imbued with Shanghai's historic and cultural legacy. Property values in the surrounding area have already risen - and continue to rise - more rapidly than in other parts of the city. The success of Xintiandi also received international attention. It was show-cased by Shanghai when the city hosted the APEC (Asian-Pacific Economic Cooperation) meeting in 2001. Xintiandi (the north block) has also won awards as winner of several competitions for excellence in redevelopment projects, including the 2003 Awards for Excellence competition held by the American Urban Land Institute, for the way it embraces the city's past and blends it with the commercial realities of modern urban living.

## 6 Conclusion

The Lujiazui redevelopment, the Xintiandi project and indeed many other ongoing urban projects in Shanghai, reflect an interesting transformation in the thinking about regeneration in the 1990s, a kind of paradigm shift. The first realisation was that there was no immediate conflict between economic return and the preservation of historic neighbourhoods. Alternative approaches to the reuse of old buildings could put new heart into a decayed area while still preserving its social atmosphere and traditional style of urban life. The approach selected depends on the aim of the project, the plan designated and the parties involved. A number of different approaches can often be used in combination to provide a more balanced development strategy.

Although each project has a unique development process, several things are required to ensure a successful result.





The first requirement is a clear vision that is not only responsive to market demand but also takes a long-term view of the future development of the area. The clarity of the goals set for the redevelopment of Lujiazui and Xintiandi set the direction for the area's future and attracted both potential investors and potential users. The same clarity of vision also plays a role in publicity and city marketing to enhance the projects' public reputation.

The second requirement is a strong commitment, a decisive element in the success of any project. Strong leadership, whether it comes from local government (as in the case of Lujiazui) or from the private sector (as in the case of Xintiandi) is essential to ensure that promises are kept and the line is held in the face of difficulties like the Asian economic crisis and the downturn in the local real estate market. This kind of commitment helps to strengthen the confidence of potential investors and buyers who are doubtful about a particular situation. It is also interesting to note that despite their strong commitment, the project leaders were not rigid about the strategies they put into practice. On the contrary, they became more flexible and adaptable in the way they dealt with changes in the market environment.

The third requirement is a proper attention to the balance between economic benefit and social and environmental goals. The clear proposals for Lujiazui and Xintiandi were not limited to property development but also took account of economic growth and social and environmental improvement, though to different extents. Both sets of proposals provided flexibility and sustainable development. Collaboration between government and the private sector provides a better chance of achieving a more balanced goal, which would be difficult for either side to achieve on its own.

As the regeneration process continues, increasing concern is being felt in Shanghai about the role of local communities and the effect the regeneration process has on them, a concern which was generally absent during the preparation of the two projects discussed above. The call for social justice and the preservation of historic buildings for alternative use has generated increasing interest among both academics and the public at large.

A number of later developments show signs of this new way of thinking. For example, a proposal to develop the waterfront of the Huangpu river, a major project involving the development of 73 km<sup>2</sup> of abandoned or under-utilised harbour, warehouse and industrial areas, has taken the continuity of the city's history into account by preserving old buildings in the area, and at the same time providing new uses and functions. Proposals have been tabled to reuse old industrial buildings by turning power stations and pumping stations into exhibition halls. A rehabilitation project in progress in the Jing'an District aims to improve the quality of life of the local residents. Although not all of those residents will be relocated back to their original homes (because the original density was unacceptably high), a good deal of effort will be put into ensuring that most of the original residents will be able to retain the local community's daily way of life.

Clearly there is still a long way to go before urban regeneration projects take a more integrated approach and become more responsive to social, economic and



environmental issues, but the importance of sustainability is receiving more recognition than ever before in the daily practice of new urban regeneration schemes in Shanghai and other Chinese cities.

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