

Reconstruction and Regeneration of Lanzhou City

An Urgent issue for Research and Training



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1. Shelter Situation in Lanzhou, Northwest of China

1.1 Basic General Data

Lanzhou is the capital of Gansu Province, which located in northwest of china.it covers an area of 14,620 sq.km. the city is 1,600 m above sea level.

Geography and Administration

Lanzhou is situated on the upper course of the Yellow River, where the river emerges from the mountains. Lanzhou is a regional rail, highway, and air hub in NW China and the junction point to

Xinjiang. Administratively, the city of Lanzhou is divided into five administrative Counties : Anning,

Qilihe, Xigu, Chengguan and Honggu.

Demography and Health

- Lanzhou has a total of 45 ethnic groups. Major Nationalities are Han, Hui, Tibetan, Bonan, Dongxiang , Tuzu, Man, Yugu, Hasake and Sala nationality. 91.7%



Figure 1: Location of Lanzhou city in China

population are Han nationality and the rest 8.3% are the other 44 minority groups. Mandarin is the only official language in Lanzhou. Mandarin is universally used in daily life and the official interaction. While the locals in Lanzhou may speak the local language—*Lanzhou hua*. In addition, different ethnic groups have their own languages. The population composition of Lanzhou is indicated in table 1..

Table 1 Population in Gansu

Population	1954	1964	1982	1990	2001	2005	2006
(in million)							
Total	12.928.102	12.630.569	19.569.261	22.371.141	25.620.000	25.917.200	26.062.500
Urbanization rate(%)						30.02	31

Source: Central Statistics Bureau

Economy

The GDP per capita of Lanzhou was 15,051 yuan (RMB) (ca. US\$1,820) in 2003,. Lanzhou is the important industry city at one time. It comprise petro chemical plant and metallurgy plant and mechanical engineering plant. In 2001 the industry increased value occupied 40% GDP, and the industry tax occupied 70% of local government finance. At the same time, the industry bring lots of pollution to destroy the environment.

Natural resources

There is a thermal generating plant supplied with coal from fields in Qinghai. In addition, there is a hydroelectric station at Zhulama Gorge in Gansu, and a large multipurpose dam has been built in the Liujia Gorge on the Purple River above Lanzhou.

Industry

Main industries in Gansu include textile mills, rubber, fertilizer plants, oil refinery, petrochemical, machinery, and metallurgical industry.

Agriculture

Lanzhou is the collecting center and market for agricultural products and livestock from a wide area. Spring wheat, vegetables, beans, oil-boiling, melon, peaches, and tobacco as well as roses and lilies oatmeal are the most noted agricultural products

1.2 Shelter Related Fact and Figures

Access to Shelter

According to the 2005 Population and Housing Census, the average floor area of city dwellers in Lanzhou is 16 square meters. By 2006, the total population of Lanzhou is 327,010,000. the population of low-income is 119,280.

The past thirty years witnessed the great improvement of people's living standards in China, basic nourishment, education, health care, transportation, electricity, water, sanitation, and to a significant extent, housing—is now available in great quantities than ever before in China. Without exception, yearly percentage increase in number of dwelling units Occupancy in Lanzhou is about 2.66% from 1990 to 2002 as a result of China's better economic performance than before.

Since the policy of housing distribution ended in 1st, July 1998, housing stock increased gradually in Lanzhou. Housing quantity and quality are all improved step by step. In China, before 1998, government distributes houses to people who live in the city and have a formal job in the city. At that time, most people in the city live in very small and poor quality houses as a result of poor economic performance. The few number of bigger and better houses is only distributed to those who are "qualified to live in" (people who are more authoritative or people who are more educated or more experienced in some aspects). Sometimes four generations just living in one house with a floor space of 15 square meters. No one can buy house freely even if you can afford a bigger house. But with the new housing policy proposed in 1998, anyone can buy house freely and choose houses they want.

- it's true that now more and more people in China live in more comfortable houses than before due to the rapid development of economy. But one outstanding problem Chinese government and Chinese people now face is that though every year a lot of new houses were built, but still a lot of families can not afford even a small house. Housing affordability ratio is less than 50%. And more and more people become mortgage slave. The cause for the low ratio of housing affordability is that, on the one hand, the newly-built houses sold at prices that few of low and middle-income families can afford even if the income of Chinese has increased greatly during past twenty years, but compared with the ratio increased in house prices, the income increase is far more behind the house price

increase (house price has increased about 3-6 times in 8 years. And income ratio is about 2-3 times). On the other hand, the low housing affordability ratio resulted from the fact that house seller in recent years all emphasized on large area houses and the area of one suite house increased from 50 square meters in the 1990s to 150 square meters now and there is strong tendency that the area of one suite increased to 170 and even over 200 square meters. The large area of one suite is the dream of many Chinese people, but its high prices is beyond the dream of most families. Fortunately, even if some families in the city can not afford the expensive new houses, so long as they have a formal job in the city before 1998, then no matter good or bad, they had a house government distributed to them. These houses may be built in 1960s, 1970s or 1980s and 1990s. For those low and middle-income families, how to upgrade these houses and meet their needs to the utmost remains one important issue for the local government and inhabitants in the city of Lanzhou. For the low and middle-income families, how to upgrade these houses and meet the inhabitants' needs to the utmost remains one important issue for the local government and inhabitants in the city of Lanzhou. It is estimated that over 50% of the existing old building in Lanzhou are in need of repair/reconstruction. But who is responsible for the reconstruction? The inhabitants or the local government? Or some other organization? Of course, the local residents are the most active participants in deciding what should be done and what shouldn't be done. The key point in the regeneration of the old residential area is the financial problem, that is, who will finance the projects of regeneration of the old residential area of Lanzhou?

Access to and cost of Basic Services/Infrastructure

The infrastructure constructs slower than the house building in China, in Lanzhou the infrastructure is far more behind the national level. There are many problems hidden behind the rapid development.

Access to and cost of Education

according to the Education Census in 2005, the number of people who pursue higher education is 71600. By 2005, there are 229500 college students in Gansu province. The number of middle school students is about 800000. The government pays lots of attention on childrens' education.

1.3 Housing Policy

- During the past decades, to be exact, before 1998, all the cities in China pursue the policy of welfare housing. But from the year of 1998 on, this situation has changed. Lanzhou as well as other cities in china has abolished the policy of welfare housing, the result of abolishment of welfare housing is that anyone who want to buy house had to afford it by himself/herself. Since the new policy has been put in use, housing ownership transformed from public to private. Meanwhile, the new housing policy resulted in the improvement of housing standard of many cities as well as Lanzhou. Housing standards can be roughly classified in two aspects. The first is area, the other is quality. City dwellers' floor area jumped from 7 square meters to 27 square meters during the past decade. As a consequence of people's pursuit of big house, a lot of big houses were constructed. Houses with large area meet demands of high-income groups but prevent the low and middle-income groups from buying due to the higher price large area houses charged. It seems that the new housing policy operated in 1998 in China is a double-edged sword, on the one hand, it frees the housing market and satisfied different peoples needs in living—anyone can choose the area of the house and choose the location as well as the quality of houses. Anyone can buy house freely as long as he/she can afford it, on the other hand, for those low and middle-income families in cities, the direct consequence is that they can not afford a house and their living standard is much under below. The high price of big house prevent middle and low-income families from buying. Consequently, in 2005, Chinese government operates a new policy to limit the area of one suite. Such as limited the 90 square meters' suites should occupied 70% in all housing constructed from the time of 2006 on. But the house area is still increased unequally. Government's policy has weak use in this aspect. Later, in 2007, to solve housing problem which is becoming more and more serious in cities, Chinese government

advocates low rental apartments policy. It partially solves the living difficulty of some people in the cities, but most housing rent has increased with the increasing of housing price and the increase in land price as well as increase in building materials prices. So to ensure that most people in the cities can afford a house or at least can rent a house, government operates a new housing policy in 2008, this new housing policy emphasized on the detailed specification of low rental apartments policy. It hopes that this new policy will have some positive effect on city dwellers' housing.

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1.4 Actors in Shelter Delivery and their Roles

Government: before 1998, housing is financed and supplied mainly by local government and each organization in the region. After 1998, housing is mainly financed by individual and sometimes by the organization in which individual worked. Local Land administration is the commissioner of land. Ministry of construction is responsible for the overall plan of the region. Ministry of Water supervise water supply. China state grid has the monopoly on electricity generation and supply.

Financial Institutions: before 1998, the financial sector follows the central government's policy and provides local governments or organizations with money for the construction of welfare houses. After 1998, financial institutions provides individuals with loans to buy houses themselves.

Organizations: before 1998 and even after 1998, organization in which each individual worked are responsible for the distribution of houses for its staff.

It is a common practice for many governments of modern cities to prepare community strategies for promoting the economic, social and environmental well-being of their areas, and contributing to the achievement of sustainable development.

The implementation of these strategies will be closely related to the actions of the 'directors' in the government and the 'actors' in the executing entities. Williams has argued that a grand plan may not be appropriate to a turbulent and complex world. An alternative paradigm should be developed to include the whole range of actors in an organization. This implies that even though structured strategies have been formulated by the government for sustainable building development, the professionals involving in the design and construction process may contribute to the

success of the strategies. Their attitudes towards sustainable development may influence the implementation process. But the fact is that in Lanzhou the person who has a decisive role in shelter delivery is the leader of the local government and the professionals' involvement in the process is less than what they and others expected!

1.5 Shelter Design

Land use: the high demand for land by competing interest groups i.e. Government, private sector, residential groups and individuals has pushed the land prices up. Public land is nearly exhausted in downtown. What makes the matter worse is that the vacant area of the city is poorly planned. Since the day Chinese government abolished the welfare housing policy in 1998, Chinese Estate experienced great changes. But the most severe problem in land is the illegal trades between the interest groups. The result of this illegal trades is the going up of the land price as well as the house price. Standardize the procedure of issuing land is the most important task for the government..

Building Material/Techonology: building materials constitute the single largest input in construction and account for over 70% of the total cost. The high cost of traditional building materials (concrete and sand as well as bricks) has limited the quantity and quality of housing stock produced in the country, but in recent years the building material has turned to steel and some synthetic plastics. These new building material shorten the construction cycle.

By-laws and Planning Regulations: during the past ten years, Chinese government operates different housing policies to regulate the housing markets, but the market-driven housing policy tend to favour high-income individuals. The incomplete housing regulations resulted in the the abnomal house prices. To ensure the house affordability of low and middle-income individuals or families, Chinese government proposed new housing policy in 2007 and 2008 which will benefit low and middle-income individuals or families .

Enabling Legislation: the provision of housing is regulated by various acts of the government and the Ministry of Construction. But the regulations made by government is powerless due to the incompleteness of legislation and law.

2 Organisation

Lanzhou University of Technology

Lanzhou University of technology is an Engineering Ministry -owned university established in 1919(formerly Gansu University of Technology). But now LUT is run by Gansu province. During the past decades, most graduates of school of Art and Design were engaged in the planning and designing of architecture in Gansu province. So they are the relevant persons that may influence the decision-making process on a real estate development process. Accordingly, their attitudes and perceptions will have significant influence on Gansu's sustainable development.

Therefore, if we want to regenerate the old residential districts in Lanzhou, then the first step is to provide students and graduate students with courses concerning the theories and practice of old residential districts' upgrading. Add these courses in the undergraduate and post-graduate course syllabus hopes to give students a more general background of upgrading residential area worldwide. By discussing , field work, surveying and topic-research, students in our university will be more aware about the current issues faced by the whole world and find out what are problems faced by Lanzhou. Learning successful experience of other countries will help find useful and relevant approaches in redeveloping and regenerating the city.

3 Shelter Problem

Upgrading the Old Districts of Lanzhou

Shelter Problem in Lanzhou

I was born in Changfeng, a factory in Lanzhou. The past thirty years witnessed its ups and downs. Today the factory is on the verge of economic bankruptcy, the residential area of this old industrial estate met a lot of problems: Maintenance, profile, environment, social as well as economic problems. In Lanzhou there are other such factories, how to build a harmonious community in these residential area is my biggest concern.

With the economic reform and open policy, land use transform from public into private and apartment use from social welfare into market system, the old industrial

estate experience hard period despite that Lanzhou experienced rapid economical development, especially in the industrial and infrastructure developments in recent years,. but economy bloom also brings some problems, such as problems of densely-populated area, more outsiders and high demand of energy, air pollution and distortion to the ecological system, etc. Since the factories I mentioned above is the factories on the blink of the bankruptcy, there is no money for the maintenance, for the beautification of the community and the environment protection of the community. Now my question is how to upgrade the old districts in some residential area in Lanzhou ? And Who will pay for the maintenance expense of the old districts ? If the above mentioned problems can't be tackled, then residence in these areas will be affected. To improve the living standard of the residents and the living environment of these communities, the local government must take some actions. At the same time, none government organizations and private company can be encouraged to involve in this process. Anyone who are concerned about this area would be encouraged to contribute to the improvement of these communities. But Rome is not built in one day, so there is a long way to go before we reach what we had expected.

It seems that there are numerous reports of climate change, of rising sea levels, of the depletion of our natural resources and the contamination of our land and water. Sustainable development is a major national policy in many countries in the recent years). This indicates that development needs to consider the long-term carrying capacity of the Earth, the equitability between people and the relationships between the economic, the environmental and social . In other words, the decision to develop a land and to design buildings should account for sustainability. After years of large scale of construction and blind large scale pulling down of houses in local cities in China, how to develop sustainably is the problem that Chinese government and people must face. As far as shelter problem is concerned, the regeneration of the old residential districts and buildings is a good way to better low and middle-income families' housing condition on the one hand and avoid blind large scale construction and blind large scale pulling down of houses on the other hand.

Opportunity and Challenge in Lanzhou's Shelter Development

▪ Shelter development has effects on	▪ opportunity	▪ challenge
▪ environment	▪ New material,new construction may lessen the catastrophic effect the development brings about	▪ Air, water and soil pollution
▪ economy	▪ Housing construction has become the important industry in social economy. Housing building Promotes the Rapid development of the the whole economy	▪ Onbalanced development between The infrastructure construction and the house building.
▪ society	▪ Reform and development	▪ Unbalance between the rich and the poor ▪

▪	▪ weaknesses	▪ strengths
▪ environment	▪ environment destruction	▪ Government take action to lessen the pollution
▪ economy	▪ Unbalanced development	▪ Rapid economic development
▪ society	▪ Huge gap between the poor and the rich	▪ Government pay much attention to the rurual area,and the welfare of the farmer and agriculture

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Key problems faced by Lanzhou's old districts

There are four key problems that Lanzhou's old districts face: firstly, the living space offered by the old districts is not sufficient and the dwellings lack sufficient durability and structural quality. The security of tenure is questionable. Secondly, the issue of regeneration of old districts has not been given the enough attention they deserve, and without significant urgent action and reforms. Inaction may exacerbate social instability, at the same time, by neglecting these issues, we lose the oppurnity to benefit from urban growth and wealth creation. Thirdly, the planning and design of old districts' upgrading were not studied and supervised by local government. Finally, fund shortage is the biggest problem that old districts' upgrading faced. .

4 Proposal for Change and Improvement

▪ The lectures I took in Lund University in 2008 will provide me with the general and basic knowledge of shelter design and development. Besides visit of housing renewal around southern Sweden, renewal of neighbourhoods Holma in Malmo and the currently undergoing neighbourhood regeneration of Holmbladsgadekvarteret in Copenhagen also deepens my understanding of shelter problem and its development. So given the urgent problems and issues in upgrading and redeveloping Lanzhou City, I therefore propose that the curriculum in the School of Art and Design should dwell on these issues. Studies and research on redevelopment and regeneration in Lanzhou City can help increase the graduate students' knowledge and awareness on the current problems such that they can help come up with some feasible solutions. Also I thought maybe I can advocate holding seminars on the upgrading of Lanzhou's old residential area in Lanzhou.

The following topics, based on the guided course by HDM, Lund University in 2008 can be used to formulate guidelines for the proposed topics for the teaching curriculum:

- The Observation about Habitat II, the Global Habitat Agenda, WUF and the MDGs ,
- Shelter Situation in Central America
- Role of the Construction Industry in Shelter Delivery
- Users' Assessment of Building Technologies for Housing
- Shelter, Climate and Comfort
- House, Function and Culture
- Low-income Housing and Urban Residential Segregation
- Shelter Development
- Organizes Self-help Housing
- Shelter and Reconstruction from a User's Perspective

The purpose for my proposal is to tackle the problem of the old residential area in Lanzhou, capital of Gansu province –northwest of China: lacking vitality, house hardware worsening and living standard declining. So after adding the topic on

Regeneration and Redevelopment of cities in China in the teaching curriculum, we can develop and research further on the following aspects to upgrade the old residential area in Lanzhou:

1. Encourage dwellers living in these old districts to participate actively in the upgrading.
2. Government must realize that they must work together with local communities to upgrade the old districts. Local communities and local government should negotiate on planning decisions and the utilization of public resources. Solutions can be found through negotiated agreements between local governments and district dwellers.
3. Government needs to promote subsidiarity, transparency and efficiency. Governments need to review their legislation and commit to the application of the internationally recognized principles of good action.
4. During the whole process of regeneration, a bottom-up approach must be stressed in any strategic plan.
5. The local government of Lanzhou should support and enact local pro-poor policies. Since the abolishment of the welfare housing policy in 1998, Housing construction has become the important industry in social economy. Housing building promotes the rapid development of the whole economy. But the speed of constructing houses should be slowed down and the blind demolition of old districts should be avoided. Local government should enact legislation against forced evictions and provide security of tenure. In fact, the forced demolition of urban old districts has never reduced poverty, it creates poverty and homelessness. Fortunately, in 2007, to provide security of tenure of city dwellers, Chinese government issued housing tenure policy, but whether it will take action is subject to dispute, but at least the security of tenure is protected by legislation.
6. Enhance the environment protection.
7. Provide the elders, the children and the youth with the space for activities.
8. Ameliorate the quality of the housing service as well as the equipment.
9. Improve the system of public participation.
10. Promote the social bonds and ties between community members.

11. Avoid demolishing a large amount of old buildings and construct a lot of new buildings which will produce plenty of architectural waste as well as the wastes of energy, architectural material, and labor force etc.
12. Encourage the community members to participate the construction and the reconstruction of their living environment.
13. The aim of this is to transfer the “ problem housing area” to “good housing area”.
14. Concrete plan for the transformation of the old residential area includes: firstly, increase public spaces which involves transforming road for buses into road for walkers , demolish some poor-quality architecture and transform them into public space. Secondly, increase the area for grasslands. Thirdly, provides residents with more facilities to ameliorate living standard of the community.
15. Try to get support from local government at the very beginning and try to attract private organization and private company to sponsor.
16. Promote the infrastructure construction, e.g water supply, electricity supply and telecom.
17. Reconstruct the old road network to meet different groups’ needs.

Annex: Action Plan

The ultimate aim is to advocate for the regeneration of old districts in Lanzhou, by including this issue in the teaching curriculum of the School of Art and Design. By doing this, students, who are the future planners and decision makers will become more aware of the issues and problems their city faces, and therefore help develop feasible and useful approaches in redeveloping and upgrading the city of Lanzhou.

- review of current curriculum
- identifying specific courses, where topic can be included
- identifying activities for students such as community research, city survey, documentation of problematic parts, etc
- design excercises related to specific parts of Lanzhou province

- research topics for graduate theses and research
- etc.

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