

Research on the Historical Heritage and Conservation-Based Revitalization Strategy of Qiansuo Ancient City in Suizhong

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Abstract: Qiansuo is an old city with beautiful historical sites. It locates in the west of Suizhong County, Huludao City, Liaoning Province, west end of Liaoxi Corridor which has always been an essential military chock-point in ancient time. Built in 1428 (Ming Dynasty), it is nowadays one of the most well-preserved sites among 125 strongholds that built outside Shanhaiguan during Ming Dynasty. It is a very important historical material on annals of Pre-Qing Dynasty War because of its special geological feature.

Despite the historical, architectural and cultural value, this old city has not been really well managed and developed as it should have been due to its remote location from the major city. Although the government is trying to patch up and getting the restoration project going, as well as advertising and so on, the tourism is well under developed. Another cruel fact is that, as the urbanization process speeding up in China, the population in such remote city drops dramatically. With the younger generation moving out to seek better study and job opportunity in big cities, only the old and the under age, those who cannot escape, stay, which makes this city of stories even more isolate and lack of energy.

The topic of this project is "renaissance", it aims for better and more practical reservation of the city according to specific laws and regulations. The design will use these corresponded laws and regulations as the main frame and try to come up with a proper strategical structure for the future based on local circumstances.

Keywords: The old city of Qiansuo; Law and regulation; Culture; History; Wars; Tourism; Strategic planning

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1. Historical Introduction of Qiansuo Ancient City

Qiansuo is located in the west of Suizhong County, Huludao City, Liaoning Province, east coast of Qiangliu River. It is also called Zhongqiansuo, originally named Jishuihe Bao, literally means rapid water castle. It is approximately 17km from Shanhaiguan District, Qinhuangdao City, Hebei Province in the west and 44km from Suizhong County (also Houqianhusuo) in the east, which is at the 325 Milepost on the 102 national highway.

In the third year of Xuande in Ming Dynasty (1428), Commander Yexing built a city here. It is called Zhongqian Qianhusuo or Zhongqiansuo for short at that time. During the period of the Republic of China (1912-1949), people started calling it Qiansuo since it sounded simpler this way. It was the essential chock-point as it situated at the west end of Liaoxi Corridor. In the prior period of the Qing Dynasty, it was almost the only access to this district for the Qing army. During 1642 to 1644, Zhongqiansuo suffered from 2 major wars between Ming and Qing. Luckily the historic site was somehow preserved in good shape and later become important historical re- searching material on the history of Pre-Qing War. After the Unification of China by the Qing Dynasty, the castles in Qiansuo was still used

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for defense purpose. It is now the attribute of ancient wisdom and telling the story of honor and blood silently.

With circa 500m of both length and width the castle is almost a quadrate (510mX 502m). The foundation was built using 1m X 40cm X30cm stone slab, followed by 45cm X 22cm X 12cm flashed bricks bedded tightly, in between tamped down with yellow soil. On top of the wall, it is finished up with limestone. On the outer side of the wall, the parapet is constructed, and there are gaps or crenel on it for shooting purpose. The wall is 8m high, 3.8m wide on the top and 6m wide on the bottom, so basically trapezoid-shaped. There are three gates on the castle, which are Dingyuan Gate(east entrance), Guangding Gate(south entrance) and Yongwang Gate(west entrance). To further reinforce the gateway, each gate is screened with an outer wall or a barbican from attack. Each side of the outer wall has parapet. The parapet facing outward is 1.5m high, constructed with crenel and shooting holes it is part of the defense system. The inner side is much lower, circa 0.8m high, aiming to protect from arrows and gunning. The corridor in between is 2-3m wide which is quite spacious for the soldiers to switch battle positions and transport supplies. The barbican is 4.2 wide on the top and 6.5m on the bottom, and there is a 4m wide ramp by the right side of the inner gate, stretching 20m long all the way to top of the wall. The north wall of the castle is completely sealed off without opening. On the wall, there is a temple called Zhenwumiao and on the outer side of the wall hangs a huge stone plaque with the carving "Zhongqiansuo". The castle is also fortified with a deep moat which is exactly 1 Zhang(333.333cm) deep and 2 Zhang (666.666cm) wide (Zhang is an ancient Chinese measurement unit).

The city road is well organized and thanks to the effort throughout the generations, the site remains relatively intact. The layout of the city centers the drum-tower, the 7m wide main streets stretches out roughly 250m in 4 directions, namely south, north, east, and west. The alleys, also Hutong, extend from the main streets differs in dimension. Here are some major alleys in the city: Dongmenli Nantou Hutong, Ximenli Nan`ertong Hutong, Dongmenli Beitoutiao Hutong, Ximenli Beitoutiao Hutong, Dongmenli Bei`er- tiao Hutong, Chenghuang Temple Hutong, Shangdi Temple Dong Hutong, Yaowang Temple Hutong, Caishen Temple Hutong, Caotang Temple Hutong, Tuzaisuo Hutong.

Legend:

- Green land
- River
- Piazza
- Old wall
- Cross street



2. Architecture Value

The architecture style, building technology and the all-around city layout of Qiansuo have well interpreted the essence of architecture theory in Ming Dynasty. Seeing the massive stone wall, firm standing, people can imagine how effective it was keeping enemy out in the year without modern guns and explosives. The only barbican left was also a quite unique feature, emphasizing its sacredness and indestructibility.

(1) Barbican

The purpose of barbican is to give extra protection. It is usually a semicircle of square wall covering the main entrance. Each side is connected to the city wall and equipped with shooting holes, independent gate, etc. One detail worth noticing is that the gate of the barbican is not aligned with the main gate but with an angle, so that the enemy has to turn the siege works around when breaching, which takes more time and trouble. Sometimes even the barbican is breached the enemy soldiers can still find themselves stuck in it since it is an awkward position to either try going all the way through the main gate or withdraw from the battle.

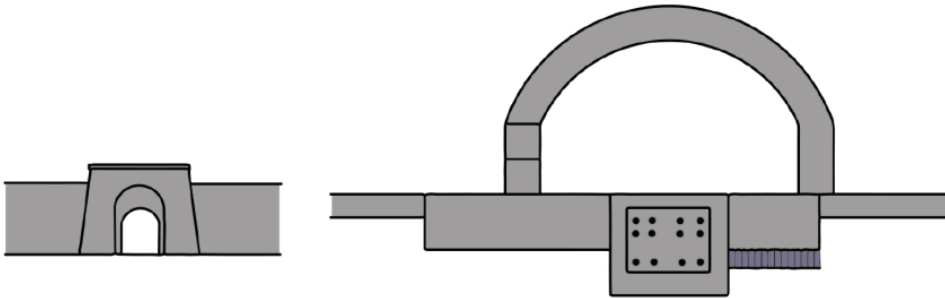


Figure 22: the barbican in Yongwang Gate facada and plan



Figure 23: the barbican in Yongwang Gate in spring



Figure 24: the barbican in Yongwang Gate in winter

(2) Architecture in the early days of the new China

most architecture from Ming and Qing Dynasty were ruined, but luckily some from the early days of the new China managed to survive, like the shops with pentagram decorations or monumental format by the intersection in the center. Some of the buildings by the sides of main streets still preserved the slight taste of this frantic campaign by hanging out those old-time posters.



(3) Dwellings with shallow-vaulted roof in Liaoxi

The dwelling houses in Qiansuo can be roughly categorized into arch topping. The shallow-vaulted roof is one of the roof patterns in Chinese traditional buildings. The roof often looks like a rectangle from the top, from the side it is clear that the roof bends like an arch, higher in the middle and lower in the front and backside of the house. The gable sometimes stretches out of the edge and the projecting part is bricked into an arc.



Figure 34: the Dwellings with shallow-vaulted roof in Qiansuo old city

3. The Current Status of Qiansuo

(1) The authenticity of the city wall

Some segments of the wall have been repaired and covered with concrete blocks in recent years, through which the original appearance was totally invisible. Regardless of the real intention, this kind of action has dramatically reduced the authenticity of the wall; the "God's Miao" on the middle of north wall has totally broken down, the foundation was also in critical condition, only few stone base of column remains; the guard tower in northwest corner was severely destructed with no patchwork whatsoever; three gates, the barbican attached to the west gate and part of the carefully repaired walls have been well preserved, retaining their basic character; the rest of the walls and guard towers managed to stay standing through maintenance, but the repair also changed the overall appearance quite a bit.

(2) The integrity of the city wall

Two main streets in the city currently stay intact, but the pavement has long changed; after checking into the historic literature, the original 11 Hutongs are partially missing, but luckily the gravel pavement survived; the moats are all filled up solid; the general layout of the city has not been altered much; the “Miao” and other structures above each gate have been dismantled, the east and south barbican were entirely gone; the city wall itself is heavily damaged, as most of the inner bricks have been removed for construction purpose, some sections have collapsed. Among which the situation on east and northeast side are even worse, but on the whole, the offside is relatively well preserved; the guard towers in each corner were demolished, the parapets and the crenels are gone. Under the high tide of urbanization, the preserved land outside the south and east wall have been reused to develop commerce, industry, and tourism. These new-built do not fit the surroundings at all, moreover, they broke the historical atmosphere at present.



Figure 59: the authenticity of the city wall



Figure 60: The integrity of the city wall

(3) Streets and rivers

Number	Name	Length(m)	Introduction and main features
1	Dongxi Avenue	500	Originally stone pavement now concrete pavement, runs east west direction
2	Nanbei Avenue	500	Originally stone pavement now concrete pavement, only a section outside south gate remains, runs south north direction
3	Wealth God Temple Hutong	250	From the root of city wall to Nanjie Street, easily accessible
4	Dongmenli Beitoutiao Hutong	250	From east gate to northeast corner, easily accessible
5	Town God's Temple Hutong	180	From God's Temple West Hutong to Xijie Street, easily accessible
6	Dongmenli Bei'ertiao Hutong	140	Northeast of the city, soil surface
7	Dongmenli Nantoudao Hutong	250	From east gate to Nanjie Street, easily accessible
8	Nanmenli East Hutong	120	South of the city, soil surface
9	Butchery Hutong	250	Southeast of the city, soil surface, easily accessible
10	Ximenli Beitoud-ao Hutong	110	From Xijie Street to Town God's Temple Hutong, easily accessible but chaotic
11	Ximenli Nantouerdo Hutong	167	From Xijie to Temple of Wealth Hutong, easily accessible but chaotic
12	Shangdi's Temple West Hutong	250	From Shangdi's Temple to northwest corner, easily accessible but chaotic
13	Shangdi's Temple East Hutong	225	From Shangdi's Temple to Erdao Hutong, easily accessible and well organized
14	Qiangliu River	15000	West of the city, serves as water resource and defensive barrier at war



Figure 61: the streets in Qiansuo old city

4. Revival Strategy of Qiansuo Ancient City

Currently, the inner ancient city is mainly used for residential purpose, and a large part of the residences live in the farming industry. Due to lack of scientific guidance, the ancient city was constantly polluted and destroyed. Meanwhile, high-added-value industries like tourism and commerce lack. It is very logical to have these developed.

(1) Traditional residential area

To a great degree, the characteristic of the ancient city is expressed by the residential area and the residence. The dwellings and streets have taken up a big portion of the area, along with the people live in there, they represent history and culture, so the living function will remain.

1) Stop the population loss

In the former projects, some proposals suggested all local residences moved out of the ancient city, have the entire area enclosed and then preserved as a museum. It is how- ever obviously unrealistic if you give it a second thought. Firstly, demanding people to move out of the house they have been lived in for generations, some even

hundred years and to relocate their home is extremely cruel and inhumane, and unlawful as well. Secondly, the people to the city are just like blood to the body, if it is drained the life is gone.

2) Restore the energy of blocks

In the former protection people mainly focused on the city wall, the transformation and control of residential areas and neighborhoods were often neglected, so the overall style of the ancient city is not good enough. Plus the modern convenience of life has brought a great impact on the traditional lifestyle, many residents have carried out a modern version of transformation on their houses. Due to limited budget and architectural knowledge, such activities have caused great damage to the urban environment. For example serious public health problems, property rights disputes, messy courtyard space, illegal construction, etc. These problems have seriously affected the traditional folk culture and the harmonious coexistence among residents. Therefore, in the process of preservation and remodel, issues as such must be gradually solved, such as dismantling illegal construction, reorganizing courtyards, and redesigning sewage pipelines.

3) Realistic needs of the residence

It is vital that the restoration project reaches a balance between tradition and modern. In the overall planning process, we pay attention to the spatial integration of neighborhoods and courtyards, and we try to introduce modern convenience while keeping the traditional lifestyle. And we also have to take various family structure into consideration. For example, families with elderly or disabled people should be equipped with barrier-free facilities and individual leisure courtyards. Families with kids should have play space, as well as sustainable design that adapts to children's growth at different ages.

(2) Commerce and traditions

In the Xianfeng period of Qing Dynasty, the commercial activities in the ancient city reached its peak. It became both the manufacture base and the distributing center, all kinds of shops, restaurants, bistros, and workshops scattered all over the city, with people shopping, trading, bargaining, also laughing and shouting. So it is reasonable and beneficial to bring the once live and prosperous business atmosphere back to life.

1) Previous cross street commerce

The ancient city is an area with little land and rather a small population. The jumbo shopping center will not fit or survive. The mechanical copy is not what we aim for, the history and culture hidden in each piece of stone and brick should be the highlight point. Historically, the cross street is the star in the commercial center, so aside from restaurants and dress shops we can add tea house, bookstore, postcard bistro, or antique shop and photography studio to it, give it a slightly modern touch. There are a lot of fascinating historical folk cultures in western Liaoning, such as Manchu paper-cut, Liaoxi puppet show, Manchu folk embroidery, gourd pyrography, shadow play, this folk art need to have a private studio to get going, and the cross street is just the spot for it. These studios with strong ethnic and regional characteristics will bring in a lot of interested tourists.

2) Small and scattered business

The small and scattered business model is also worth trying. Such mode will fit in almost every Hutong and alley, no negative effect and no worry of over-development. Since such pattern roots in the neighborhood, it has to be carefully combined with the current residential building or directly use it as the location. Good example: agritourism and B&B style hostels.

(3) Tourism development

Qiansuo is an ancient city full of mysterious charm. No matter the history and culture or the remaining structures are enough to make people astonished.

1) Improve the quality of landscape

Most of the tourists only visit the west gate when they come to Qiansuo because the barbican of the west gate is the only one remains and honestly the only thing worth seeing right now. If the cross street can be properly rebuilt and managed, tourists will be pulled to city center naturally. Similarly, once the ring alley beside the wall is restored, people will have the opportunity to go on a complete tour on foot or by bike, to genuinely see and feel the ancient city. Also, the old grain depot on the south side of the ancient city can be reconstructed into a city museum, which enables the visitors to better understand the historical and military value of the ancient city.

2) Supporting facilities

Reasonably set some service facilities, such as bed and breakfast hostels, restaurants, snack bars on the cross street, and tourist centers transformed from abandoned houses. Not only has the act met the needs of tourism, but also has it activated its regional value.

3) Personnel training

Tourism will create a lot of jobs, yet new jobs like museum manager, narrator, catering and hotel staff might not be familiar for people who live there and hope to seek a position in this line of work. It is essential that these personnel receive proper training, guidance, and evaluation before going on the post. These new posts will help improve tourism and at the same time bring the people of Qiansuo together.

(4) Municipal facility upgrade

The upgrading of the municipal facilities is directly related to the preservation of the ancient city. The previous municipal facilities have entered the inner city without adequate design, which not only caused serious damage to the overall historical atmosphere, but also had many problems in its use.

1) Water supply and drainage system

As the water supply and drainage system travels underground, it should be noted that it is combined with the street form of the ancient city, so that it will not cause damage to the traditional residential buildings and other structures up above during construction and maintenance.

2) Power supply system

The existing power supply system in the ancient city is very confusing and chaotic, and the erection seriously affects the landscape and the vision. The exposed wires are hanging right above the high-density courtyard, which is imminent fire hazards. Therefore, the cables have to be installed underground and the correct grading system has to be introduced.

3) Telecom and cabling

The cabling and connection layout have to be carefully organized. Different departments should be contacted for special design and production to meet the requirement of the whole project.

References

- [1] Wang Xiaoyu, Research Of The Overall Protection Model Of The Cultural Heritage Area Of The Pre-Qing Dynasty In Liaoning, People's Republic Of China, Science Press, Press: 2016.
- [2] Wang Xiaoyu, Protection Of The Pre-Qing Architectural Heritage Area In Liaoning, People's Republic Of China, Liaoning Science And Technology Press, Press: 2015.
- [3] Wen Yixiu & Fan Bingxun, Sui Zhong County Annals , People's Republic Of China, Liaoning People'S Publishing House, Press: 1988.
- [4] Fan Xixuan & Zhang Yukun, The Military Settlements Of Liaodong Zhen Were Important Parts Of The Great Wall Military, UIA 2017 Seoul World Architects Congress.
- [5] Zhang Chenxin, Research and Application of The Chinese Manchu Traditional Folk Culture In Architectural Design, Jilin Jianzhu University, 2015.