Research on Urban Planning Method in Historical Environment
The Case of Epang Palace Archaeological Park and Surroundings

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Abstract—Scientific urban development has been a significant trend of new-type urbanization in China. Base on this trend, this article takes Epang Palace Archaeological Park as an example to explore methods of urban planning in historical environment. The method contains three aspects: discovery of historical factors, proposal of utilization strategies, and application in practical projects. As a result, creation of historical environment is a scientific method of improving life quality in urban areas, offering references for similar planning projects and researches.

Keywords—archaeological park; historical environment; quality of life

I. INTRODUCTION

Over the last 35 years, 131 cities have been elected as national historical and cultural city while more than 200 have been selected as provincial historical and cultural city. In quantity aspect, China has made great achievements for history and culture protection. However, conversation concept is under the trend of transformation from “Historical Site Protection” to “Cultural Heritage Protection”, inevitably influencing urban living environment. Relevant urban planning researches and practices are faced with new requirements [1].

In 2015, China’s Central Urban Conference put forward the requirement of “improving living environment quality” instruction, which has become a new trend of China’s new-type urbanization. In this trend, “to protect and promote Chinese Traditional Culture, to carry on urban historical context and to form distinctive urban development pattern” are important aspects. Urban and rural historical environment serves as the sum of natural, humanistic, social, economic factors in the cities. The conservation and utilization of that no doubt have important significance for rebuilding city culture, developing a strong culture confidence in China and achieving new urbanism [2].

II. PROBLEM ORIENTED URBAN PLANNING METHODS

During the process of rapid urbanization in China, globalism has impacted urban development in many aspects, resulting in some problems as well. There are three major problems: lack of cultural confidence, homogenization of urban development and resource waste by extensive planning. To solve those problems, scientific planning has become a necessary method, especially in historical environment [3].

A. Recognition the Concept of Historical Environment

In the narrow sense, “historical environment” refers to a historical area under special protection, announced by government and related apartments. In this aspect, it contains historical and cultural cities, towns and villages [4].

In the broad sense, “historical environment” is regarded as areas with significant historical value, where readable historical pattern, heritages, traditions, tales and a certain spatial range are basic characteristics.

Former urban planning projects only considered how to discover, protect and utilize historical resources when it came to historical cities, towns and villages. Nevertheless, under the circumstance of new-type urbanization, it could not satisfy the need to inherit and develop city identity, which calls for a new method to introduce the broad sense of historical environment to urban planning in historical cities.

B. Urban Planning in Historical Environment

Urban planning takes place under certain limiting conditions, let alone those in historical environment. Urban Planning projects in historical environment pay more attention to local cultural and circumstance, which should
contain three aspects: 1. Natural and artificial environment in historical areas should be considered as a whole; 2. New constructions, such as, architectures, landscape and plants, should be designed in harmony with historical characters; 3. Elements closely related to local residents should be involved in the planning to sustain traditional neighborhoods viability.

In the next section, with the case of Epang Palace Archaeological Park and Surrounding Areas Planning, we will make further discussion about basic procedure of planning in historical environment, which could be concluded as following four steps. First, study historical context of the city; second, interpret cultural value of the environment; Third, tease out remains and historical spatial form; Four, discover and utilize “cultural and spatial” factors in historical environment, serving as crucial node for improving o life quality.

III. EXAMPLE OF CASE: XI’AN EPANG PALACE ARCHAEOLOGICAL PARK AND SURROUNDING AREAS PLANNING

Among planning projects considering historical environment, archaeological park planning, aimed at great site protection and display, stands out for its representation of culture, composition of resources, variety of social characteristics and coherence with practical need of new-type urbanization. These characteristics make archaeological park planning not only a typical case for great site protection, but a reference for other planning projects and researches in historical environment.

A. Basic research of Epang Palace and Surrounding

1) Historical context study: Epang Palace is located in Fengdong – Fengxi New City, Xianyang to the north while Xi’an to the east as in "Fig.1”. Fengdong – Fengxi New City is the key area in Xi-Xian Integration Development, where heritages early to Zhou Dynasty are not only representative of China ancient capitals but also rare in the world. This area is critical in Chinese culture development and ancient capital culture. Spatial sequence, formed by ancient capital heritages axis during thousands of years, has played an important role in urban space development.

2) Environmental and cultural value of the heritage: In aspect of spatial location, Epang Palace Archaeological Park is located between two historical and cultural cities, Xi’an and Xianyang, where assembles abundant heritages. As the only palace remain of more than 200 palaces of Qin Dynasty and the only visible remains of Qin Dynasty period remains, Epang Palace has outstanding historical significance. Heritages here have characters of typical models, diversity, spatial agglomeration, precious value and enormous scale, which is unique and irreplaceable nationwide [5].

3) Remains and historical spatial form analysis: Epang Palace intuitively shows building science achievement of large-scale rammed earth palace in Qin Dynasty and planning theory of ancient capitals. In the Archaeological Park, there contains Epang Palace Front Court Heritage and other six architectural heritages from the Warring States Period to Qin Dynasty. The group of remains present a spatial characteristic of “one major with three minors”. Readable historical pattern, undamaged remains, continuous and logical spatial distribution in this area is the quintessence of ancient cities. Historical remains lay a good foundation for showing area change during the time and improving environment quality.

Fig. 1. The location map of Epang Palace.

B. Urban Planning Strategy

1) Aim of planning: Based on analysis of heritage historical environment and characteristics of the heritage, in this planning, Epang Palace Archaeological Park should offer five major functions: heritage protection, science research, history education, cultural tourism and urban landmark, constructing an ancient capital archaeological park network with Epang Palace in the center and heritage groups around, overlaying landscape, cultural spaces, villages, roads and environment to the network. With this network, Fengdong-Fengxi New City will be created as an ecological city in a symbiotic relationship with grand heritages, which can be called as “City in the Park”.

2) Urban design: Considering Archaeological Park’s specificity, urban design of Epang Palace and surrounding takes scientific research, protection and utilization as the basic principles, which are the base of all the strategies. Protecting heritage reality and completeness, Archaeological Park should contain the functions like discovery, display, research and tourism. With scientific cultural tourism, social value and economic value of the heritage could be improved, making the heritage a positive resource for urban environment quality [6]. As for Epang Palace Archaeological Park, urban planning strategy is to apply continuous archaeological excavation, revealing two-thousand-year culture timeline, studying how the heritage has changed, and analyzing how archaeological layers distribution. After comparing with multiple proposals, this
project designs an aerial path above the heritage itself, with heritage remains in the center while the surrounding displaying different layers of different dynasties, showing historical heights of Epang Palace in different periods in "Fig. 2". By adopting this method, the project achieves heritage authenticity display, continual discovery, historical changing pattern and historical landscape creation, making archaeological heritage tourism turn into an experience of interesting science knowledge and true history.

Fig. 2. The diagram of Aerial Path.

Besides, given Archaeological Park’s specificity, “big museum” concept is applied in Epang Palace Archaeological Park Project. Fully utilizing cultural resources and geographic environment resources, Epang Palace Archaeological Park is going to be constructed as an urban green heritage protection area with historical characteristics from Qin and Early Han Dynasty in "Fig. 3" and "Fig.4". The heritage itself will echo outdoor and indoor exhibitions and blend with urban landscape. Special display will be applied to current urban landscape, forming cultural scene with historical authenticity. [7]

Fig. 3. The site plan of Epang Palace Archaeological Park.

Fig. 4. The Design sketch of Epang Palace Archaeological Park

IV. CONCLUSION

Since Xi’an Declaration announced in 2005 by ICOMOS, historical environment has been given a great significance, which calls for new requirement for designs in historical environment. The design is not only aimed at protecting heritages, but also stressing on creating historical, local, modern spaces which can inherit city context. Showing respect to historical and cultural heritages and city context and protecting historical style, the design method helps to create historical environment, keep a whole and real city heritage pattern, and promote the blend of historical cultural and modern city construction [8]. To conclude, the basic aim for design is to maintain and regenerate historical environment [9].

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