

Sustainable Protection of Chinese Human-Habitat Historical Environment from the Perspective of Transition: Cases Study of Traditional Villages and the Ancient City of Pingyao in Shanxi Province

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Abstract: The title of human-habitat historical environment is awarded to traditional human settlements under specific economic, political, cultural and technological conditions. Such environment has dual attributes of historical protection and community life, and its sustainable protection has an important impact on urban development and resident life. By analyzing the problems in the protection of Chinese human-habitat historical environment. Issues touch on the neglect of community life in protection action, the ignorance of the big environment background in protection perspective, the lack of regional considerations in development strategies, and the implementation force is dominated by the will of the government, as well as the deficiency of dynamic management mode. Then, through in-depth interpretation of UNESCO's proposals on environmental protection of historic cities, drawing on the experience of historical environmental protection in HUL pilot cities, and based on the concept of sustainable development, this paper puts forward the transformation paths of Chinese human-habitat historical environment. This paper focuses on the discussion of the two settlement types of traditional villages and the Ancient City of Pingyao(ACP) in Shanxi Province. The main paths include: protecting objects from focusing on the heritage protection to considering both heritage protection and community life; protecting perspectives from cultural relics protection to protection of urban environment floor; protecting forces from relying on government to multi-force participation of the whole society; and protecting management from static management system to sustainable dynamic planning management. By protecting, renovating and improving the livability of the human-habitat historical environment, the sustainable development of the urban historical environment is gradually realized. The paper is intended to provide experience for sustainable protection of the human-habitat historical environment in China.

Keywords: transition; human-habitat historical environment; traditional villages in Shanxi Province; the Ancient City of Pingyao

1 Introduction

In recent years, the environmental problems brought about by the rapid urbanization process have attracted more and more attention. Among them, the urban historical environment, as a collective memory of human beings^[1], is facing tremendous pressure and challenges. "Human-Habitat Historical Environment" refers to the overall space environment composed of cultural heritage, place environment and community life, which has dual attributes of historical value and community life value. At present, China has entered a comprehensive

transformation stage from traditional to modern^[2], and the transformation and development of China's "Human-Habitat Historical Environment" is an irreversible trend of the times. In this context, "Sustainable Development" and "Historical Urban Landscape (HUL)" have gradually become hot topics in the field of heritage protection in China^[3]. The former requires the protection and sustainable management of existing resources and urban heritage, while the latter, as a holistic and dynamic concept in a new perspective, provides an opportunity for the interdisciplinary exploration of "Human-Habitat Historical Environment"^[4] and a new reference paradigm for the sustainable protection of city heritage in China.

2 Human-Habitat Historical Environment

2.1 Overview of Human-Habitat Historical Environment

"Human Settlement" refers to various types of human settlements and environments in cities, villages and towns^[5]. Among them, "the city is the material framework of daily family and economic activities, as well as an environment of concern for more meaningful actions and nobler impulses of human culture" (Lewis Mumford, 1961). "Human Settlement Science" was founded by Doxiadis and systematized by Wu Liang-yong and others in China^[6] (Figure 1). It is a science focusing on the relationship between human beings and the environment, and also an interdisciplinary group of disciplines, such as geography, environment and economy, which are dominated by architectural science^[7].

"Historical environment" refers to the overall historical environment landscape composed of historical buildings, historical streets and historical context, which represents the human characteristics of the region. While the "Human-Habitat Historical Environment" emphasizes the important role of community life in the historical environment landscape. It is the environmental space created by human beings in the past under specific economic, political, cultural and technological conditions. It has dual attributes of historical protection and community life.

"Human-Habitat Historical Environment" can be roughly divided into two clusters: one is "Human-Habitat World Heritage", whose "outstanding universal value" is so rare that it transcends national boundaries and has universal significance for the present and future of mankind (United Nations Educational, Scientific and Cultural Organization); the other is the "General Human-Habitat Heritage", such as traditional villages, ancient villages, historic and cultural towns and famous villages, historic and cultural blocks and other historical environment areas with "life attribute" and "heritage attribute".

2.2 Transitional Development of "Human-Habitat Historical Environment"

With the acceleration of urbanization in the world, more and more cities are facing great threats. The protection and development of urban historical environment are facing major challenges. The transformation and development of urban historical environment has become an irreversible trend of the times. In this context, the international community has carried out in-depth discussion on the transformation and development of urban historical environment, and eventually issued the "Recommendation on the Historic Urban Landscape" in 2011, forming a new concept of urban historical environment transformation and development - "Urban Historical Landscape", and then extended and promoted the connotation of its methods. Historic Urban Landscape (HUL) is a renewed and dynamic method of managing heritage resources. Its connotation emphasizes the importance of

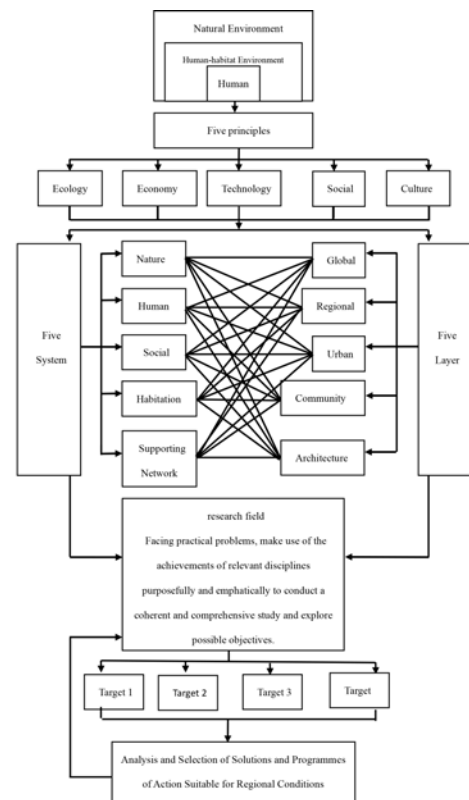


Figure 1. Basic Research Framework^[6].

the sustainable protection and shaping of the historical environment of ordinary daily life landscape, and emphasizes the results of the "layering" a formed by the superposition of other different "layers", such as the natural "layer" and the humanistic "layer".

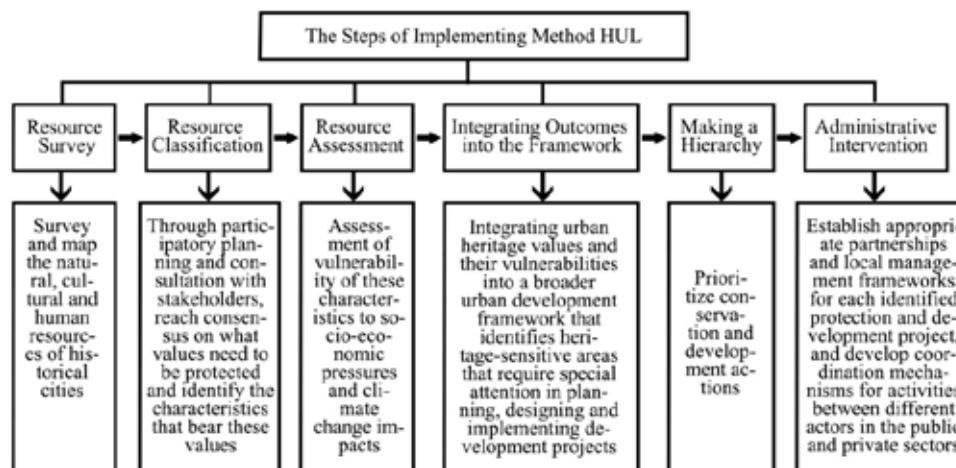


Figure 2. Implementation Steps^[8].

HUL international pilot projects have been actively launched in Africa, Europe, North America, Latin America and the Asia-Pacific region. Up to now, more than 10 cities have joined the project, which has attracted many attentions from the field of international heritage protection. The specific practice of these pilot cities in the application of HUL concepts and methods deserves summary, reflection and reference.

Table 1 Summary of other pilot cities in the Asia-Pacific region^[3]

Country	Ecuador	Tanzania	Australia
City	Cuenca	Zanzibar	Ballarat
World Heritage Site	Yes	yes	no
time	2015	/	2013
Application Scope of HUL	Historic Center and Its Surrounding Areas	Ng'ambo area	Bararrette City
Major challenges	Excessive urban development; gentrification; immigration; threat to heritage buildings; tourism challenges; abandonment of modern heritage; real estate investment; transportation; low-quality development and expansion of contemporary architecture	World Heritage Sites Lack of Linkages with Regional Scope; Population Growth Too Fast; Buffer Zone Protection Inadequate; Policy Guidelines Insufficient	Massive population growth; expansion of historic urban areas; climate change
Application of HUL Toolbox			

Public Participation Tools	Cultural Mapping; Seminar on Citizen Participation	Cultural Mapping; Non-material Heritage Mapping; Community Participation; Stakeholder Participation; Vision Conference; "People Decide Planning"; Mutual Partnership	Cultural Mapping; Local Participation; Online Tools (e.g. HUL Portal Network); Advisory Committee; Information Package; Work Camp; Establishment of Heritage Awards; Media Participation
Knowledge and planning tools	Kunka History Center Protection Planning; Background Research and Detailed Research; Basic Information Table; Establishment of Database; Drafting of Proposals	Local Planning (LAP); UL Analysis of Planning Policy Guidelines (PPG); Complementarity of Research and Design; Heritage List	Visualization of Bararette Project; Bararette Heritage Database
Regulatory system	Classified Protection; Handbook of Excellent Practice Cases	National Space Development Strategy; Zanzibar Structural Planning	Bararette Strategy; Bararette Planning Plan; Statutory Planning and Implementation; Heritage Additional Mechanism; Community Participation Policy
Financial instruments	foundatin	Dutch Government Subsidies	Jointly Protect Our Heritage - Subsidies; Bararette Heritage Restoration Fund - Subsidies

It can be seen from the table that the application of the suggested toolbox has been taken into account in the application of the HUL method in the three cities, but each has its own emphasis. In the public participation tools, the production of cultural maps has been used, and different levels of public participation have been added; the establishment of relevant databases has been emphasized in the knowledge and planning tools; and in the regulatory system, the main consideration is the establishment of relevant databases. The application of the overall strategy and the means of hierarchical protection; in the financial instruments, government subsidies and related fund subsidies are the main sources of funds. Through tracking and evaluating the specific application of HUL method in different cities, it can effectively guide the follow-up HUL method related practice projects.

3 The Chinese Human-Habitat Historical Environment from the perspective of the Traditional Villages and the Ancient City of Pingyao in Shanxi Province

"Human-Habitat World Heritage" and "General Human-Habitat Heritage" are two important settlements in the "Human-Habitat Historical Environment". As the saying goes, "Five thousand years of civilization see Shanxi". Shanxi is one of the important birthplaces of the Chinese nation. For thousands of years, our ancestors have created brilliant civilizations in this hot soil and left a large number of historical relics. The typical representative of the "General Human-Habitat Heritage" is the traditional villages in Shanxi Province and the typical representative of the "Human-Habitat World Heritage" is Pingyao Ancient City. There are a series of problems in the process of its protection and development. Although it cannot fully represent the protection experience of all types of Chinese

“Human-Habitat Historical Environment” , its changing trend and challenges are of great significance to the protection of the historical environment of human settlements.

3.1 Overview of Traditional Villages in Shanxi Province

Shanxi Province is located in North China (Figure 3), on the Loess Plateau, adjacent to Hebei in the east, with Taihang Mountain as a natural barrier. The Yellow River in the West and south, facing Henan and Shaanxi, crosses the Great Wall in the north and adjacent to Inner Mongolia Autonomous Region. Its special geographical location makes Shanxi Province a military strategic location since ancient times, and its complexity is changeable. Regional environment, unique location conditions and strong historical background make Shanxi Province a major province of cultural relics in China (Figure 4), known as the cradle of Chinese civilization and the Museum of Ancient Chinese Art. So far, there are 129 Chinese traditional villages and 239 Provincial Traditional Villages in Shanxi Province (Figure 5). Among these traditional villages, the traditional villages dwelling mainly in Ming and Qing Dynasties are the most characteristic and representative. The space layout, architectural features and carving art of these courtyards are of great significance to the study of traditional dwelling buildings in northern China. The historical culture behind them and the social structure formed through historical accumulation constitute a common structure. Shanxi’s urban characteristics and cultural connotations. Its complex and changeable geographical environment, unique geographical conditions and strong historical background make Shanxi Province a major province of cultural relics in China, known as the cradle of Chinese civilization and the Museum of Ancient Chinese Art. So far, there are 129 Chinese traditional villages and 239 Provincial Traditional Villages in Shanxi Province. Among these traditional villages, the traditional villages dwelling mainly in Ming and Qing Dynasties are the most characteristic and representative. The spatial layout, architectural features and carving art of these courtyards are of great significance to the study of traditional residential buildings in northern China. The historical culture behind them and the social structure formed by historical accumulation constitute the urban characteristics and cultural connotations of Shanxi (Figure 6-8).



Figure 3. Location of Shanxi Province in China.



Figure 4. The Distribution Characteristics of Chinese Traditional Villages among the Provinces^[9].



Figure 6-8. Photographs of Traditional Villages in Shanxi Province^[11].

Figure 5. Distribution and Types of Traditional Villages in Shanxi Province^[10].

Traditional villages in Shanxi Province, as the representative of "general human settlements heritage", do not have the tremendous impact of tourism brought by the name of "World Heritage", but in the context of rapid urbanization, the deterioration of their natural and artificial environments, the conflict between modern lifestyle and traditional living environment, the tremendous impact of industrialization and urbanization on traditional settlements and the large scale, rich connotation and complexity of the present situation hinder the sustainable development of local architecture and its historical environment (Figure 9-16).



Figure 9-16. The current situation of environmental deterioration in some traditional villages in Shanxi Province.

3.2 Overview of the Ancient City of Pingyao

Pingyao County, located in the central part of Shanxi Province (Figure 17), is a large cultural relic County in Shanxi Province. It has more than 300 historical and cultural relics. Among them, the Ancient City of Pingyao

is the most representative and typical. In 1986, the Ancient City of Pingyao was named "National Historic and Cultural City", and in 1997, it was named "World Cultural Heritage", which is the most well-preserved ancient city in Chinese "Human-Habitat Historical Environment". It preserves the historical form of the county-level cities of the Han nationality in central China during the Ming and Qing Dynasties (14-20th centuries) (Figure 18-19). It has unique defense system features, axis-like functional layout features, street and lane pattern features that continue the ancient Chinese Lane system, space courtyard pattern of traditional northern residential courtyards and a large number of intangible cultural heritage and local traditional cultural practices, Pingyao has rich tourism value because of its unique ancient city cultural landscape, which attracts people from all over the world to come and watch (Figure 20-21).



Figure 17. Location of Pingyao in Shanxi Province, China.

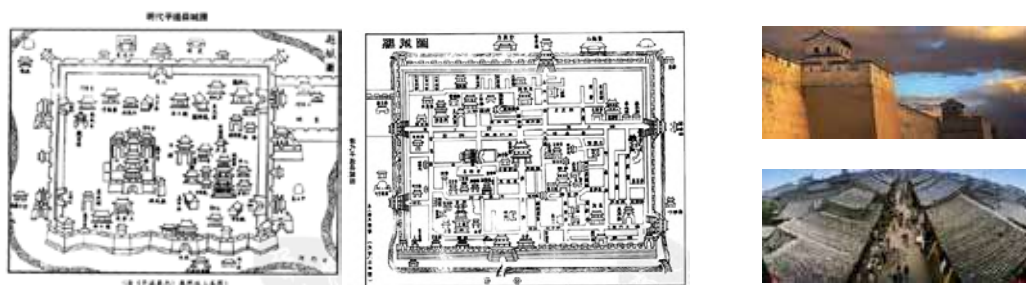


Figure 18-19. Maps of Pingyao County Town in Ming and Qing Dynasties^[12]. Figure 20-21. Pingyao Ancient City Wall and Traditional Residence^[13].

In recent years, due to the development of tourism, Pingyao ancient city walls and public buildings have been well protected by the cultural relics department, but as the background of Pingyao ancient city, many traditional residential courtyards have been damaged, collapsed or even rebuilt (Figure 22-25). Large-scale tourism development has made a huge impact on the historical environment of the ancient city of Pingyao. The loss of the characteristics of the ancient city and the social changes with residents as the core all threaten the authenticity and integrity of the world heritage.



Figure 22-25. Rebuild and Waste of Branch Courtyards in Pingyao Ancient City.

3.3 Problems in the Action of Chinese Human-Habitat Historical Environmental Protection

With the accelerated development of urbanization in China, the phenomena of "constructive destruction", "protective destruction" and "creative destruction" prevail in the development process of human settlements historical environment, which often destroys urban texture, human settlements environment and urban cultural foundation while demolishing historical buildings. "Constructive destruction" has always been a major threat to the protection of urban heritage in China, and some urban development projects violate the protection laws and regulations and related management regulations, causing irreparable disasters to the historical environment; "Protective destruction" refers to the phenomenon of ancient city revival and old street revival, which has emerged in recent years. It has become a large-scale demolition and construction act with cultural signboards. The "human settlements historical environment" is mostly used to develop thousands of uniform commercial tourist sites with cultural packaging. The living needs of the aborigines are not satisfied, and the original social system no longer exists; "Creative destruction", created by the collusion of capital and power, has sprung up like mushrooms^[5]. The main problems in the process of protection of Chinese residential historical environment can be summarized as follows: protection action ignores community life, protection perspective ignores environment background, development strategy lacks regional consideration, implementation force is dominated by the will of the government, and management mode lacks dynamism. The protection of "Human-Habitat Historical Environment" should not solidify the current situation of historical environment, but maintain the harmonious, unified and dynamic and sustainable development of natural environment, human environment, historical environment and community environment.

4 Strategies for the Transitional Development of Chinese Human-Habitat Historical Environment

The HUL method emphasizes the dynamic protection of the urban historical environment from a new perspective, especially provides the overall idea and huge space for the development of scientific development, human development and human-land co-prosperity for the human settlements historical environment in the process of transformation and development. European urban historical environmental protection experience and HUL international pilot project practice experience have important reference significance for the transformation and development of Chinese "Human-Habitat Historical Environment"^[14]. Therefore, in view of the related problems in the development process of Chinese "Human-Habitat Historical Environment", based on the concept of sustainable development and the reference of international experience, this paper puts forward the following transformation path of Chinese "Human-Habitat Historical Environment" according to local conditions.

4.1 Protection Object Transition from "focusing on heritage protection" to "giving consideration to both heritage protection and community life"

The continuity of culture and place spirit (sense of place) based on the HUL method emphasizes the relevance value of heritage protection, especially community value. It is also one of the "5C Strategic Goals"ⁱ advocated by the World Heritage Committee and supported by the international community. Both "General Human-Habitat Heritage" and "Human-Habitat World Heritage" have dual attributes of historical heritage and community life. Therefore, in the process of protection, we should not only consider the authenticity of historical heritage and the

integrity of historical environmental quality, but also pay attention to the continuity of residential life and the continuity of local sense of place. The HUL method emphasizes the importance of economic, social and cultural factors in promoting the formation of historical environment, focuses on the importance of ordinary daily life for urban landscape, and attaches importance to the role of ordinary residents in the formation and protection of human settlements historical environment.

Urban planning has the responsibility to protect the city's historical features and space spirit. The old houses and ordinary daily life of ordinary residents are the direct records of the city's public history and the basis of maintaining social relations network. Governments at all levels, especially local governments, have the responsibility to protect the city's public history and collective memory, and actively carry out field surveys, economic assessment, policy formulation, planning and implementation, and encourage public participation.

4.2 Protection Perspective Transition From "Single Protection of Cultural Relics" to "Protection of Urban Environment Base Plate "

The HUL method emphasizes the construction of an all-round and multi-level heritage protection system. From the perspective of transformation, the sustainable protection of Chinese "Human-Habitat Historical Environment" should establish an all-round and multi-level protection system starting from "point", connecting with "line" and forming a "face", which is a protective base plate. Starting from "point", which required to protect the authenticity and integrity of cultural protection units, historical buildings, industrial heritage, ancient and famous trees at all levels; connecting with "line", which emphasizes the continuity protection of historic and cultural blocks, historic walls, traditional villages, streets and lanes, and important river systems, with lines crossing points and lines forming planes; forming a "face", which refers to the protection of the whole urban environment base plate, extending the protection to the level of regional human environment and natural geographical environment, and continuing the cultural context of the times. The drawing of cultural maps in HUL method emphasizes the comprehensive investigation of "points", "lines" and "all-round". On this basis, the priority order of heritage protection and development can be determined through the participation of all parties in the evaluation, so as to promote step by step and protect the heritage in an all-round way.

In China's existing "cultural relics protection unit - historical and cultural cities (towns)" protection system, the operating mechanism of the environment base plate is not mature, while paying attention to physical space protection, we should also pay attention to the integration of the basis of environmental resources. The environmental landscape in the historic city of human settlements is the basis of its "historic" presentation. Combing and incorporating the natural landscape into the heritage protection system is also very conducive to the management of the government.

4.3 Protection Force Transition from "Depending on the Government" to "Multi-Forces Participating in the Protection of the Whole Society"

The HUL method emphasizes the participation of multi-stakeholders and advocates the establishment of a platform for social participation. In the process of sustainable development of " Human-Habitat Historical Environment "in China, we should not only attach importance to the active control role of the government as a "tangible hand", but also give full play to the role of social forces as an "invisible hand". By combining the favorable elements of all sectors of society, data collection and analysis of urban historical environment are carried out in various aspects, so that stakeholders can clearly define the important value of urban cultural heritage, and then formulate a variety of long-term feasible mechanisms, such as government-led, citizen participation and so on, so as to promote the comprehensive protection of diversity in urban historical environment. The model of "multi-force participation in the protection of the whole society" builds a comprehensive platform in line with the environment of heritage sites and social activities, facilitates effective dialogue among different subjects, and at

the same time meets the protection needs of various sectors of society. It is an important force for the sustainable protection of Chinese "Human-Habitat Historical Environment".

4.4 Protection Management Transition from "Static Management System" to "Sustainable Dynamic Planning Management"

HUL method pays attention to the importance of urban historical context continuation for urban historical environmental protection. In the Recommendation on the Historic Urban Landscape, it emphasizes that "the urban historical environment is the accumulation of values created by the connecting cultures and existing cultures in history, as well as the accumulation of traditions and experiences" ⁱⁱ, while recognizing the "dynamic nature of living towns". The HUL method encourages urban development and renewal, but emphasizes a dynamic and sustainable planning, which actively plans the sustainable development direction of the city according to the current situation of urban development, urban characteristics, urban historical value and so on. As Kevin Lynch said, "Managing and effectively utilizing the changes in historical sites for present and future needs is better than a rigid respect for the sacred past." The core of urban planning management is to effectively manage "change". It is neither fixed nor laissez-faire. Its key point is to take full account of the diversity and sustainability of historical cities. At the same time, it is necessary to improve the protection system, relevant laws and regulations, planning standards and urban planning system at all levels, and explore the dynamic and sustainable mechanism of planning protection management.

5 Conclusions

The method of urban historical landscape (HUL) not only emphasizes the protection of heritage itself, but also integrates and expands the elements of natural landscape, community life and regional conditions, which greatly enriches the scope and methods of historical landscape protection. Therefore, only when the environmental base is guaranteed and the development strategy covers a wide range of perspectives, such as broadening the object of protection, dynamic management, and the participation of the whole people in practice, can the sustainable protection and transformation of the "Human-Habitat Historical Environment" be finally promoted. It provides new experience for China's sustainable protection strategy in protecting objects, protecting perspectives, protecting forces and protecting management, and provides new ideas for improving the livability of "Human-Habitat Historical Environment" and realizing the sustainable development of urban historical environment.

Endnotes

- i. "5C strategic goal" is to enhance the *credibility* of the World Heritage List, ensure the effective *conservation* of the World Heritage Site, promote the effective *capacity building* of the States Parties and heritage sites, promote public awareness, participation and support for the protection of the World Heritage Site through *communication*, and strengthen the role of *community* in the implementation of the World Heritage Convention.
- ii. Article 8 of the *Recommendation on the Historic Urban Landscape*: Urban historical landscape is a city area created by the accumulation of cultural and natural values and attributes in history. It goes beyond the concept of "historical center" or "whole", including a broader urban background and its geographical environment. Article 11: The method of urban historical landscape aims at maintaining the quality of human environment, improving the productive utility and sustainable use of urban space while recognizing its dynamic nature, and promoting social and functional diversity. This method combines the goal of urban heritage protection with the goal of social and economic development. Its core lies in the sustainable balance between the urban environment and the natural environment, the needs of present and future generations and the historical heritage.



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