Reuse the Nanjing ancient city wall in urban landscape

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Abstract—With thousands of years of history, China has many historical features and artifacts, such as the Ancient City Wall of Nanjing. The magnificent city wall forms the unique characteristic in Nanjing with its distinctive shape and exquisite technology. It is an important symbol of the ancient city. To protect ancient city wall is to continue the city life. However, the protection of ancient relics is not simply preserving the integrity of form. To continue cultural context and pursue the sites spirit in view of urban landscape space design increasingly arouse our attention and thinking about the historical sites’ protection and reuse. While the city changes so rapidly and after such social vicissitudes during six-hundred years, what mission the ancient city wall will carry? How to re-examine the historical sites with a new vision and make it become eternal cultural symbols and spiritual memory of the city? This is the focus to be discussed. This paper expounds from several aspects: protect ancient city wall sites, join modern energy and create humane urban landscape space. It stressed there should establish a set of complete theoretical system, to explain and reappearance the spiritual connotation with a kind of new design methods, to look for the close relationship between landscape design and spirit of place, and to develop a kind of design approaches originated from site, link it with natural background, historical culture and regional characteristics. Thus make the ancient city wall revived from modern civilization, and also let our cities present an unique spiritual charm rely on its own historical and cultural background.

Keywords—Ancient City Wall; Urban Landscape; Protection; Reuse

I. INTRODUCTION

Nanjing was named Stone City in the ancient. It is in the east of China. It is the capital of Jiangsu Province. In history, there were six emperors built their national capital in Nanjing. In order to protect his capital, the first emperor of Ming dynasty built the Ancient City Wall in 1366. And the great project finished in 1386 [1].

Now it is more than six hundreds years old. This famous wall has large-scale, it was 33.676 kilometers long and 14-20meters high (Fig.1, Fig.2). It relies on the Purple Mountain and surrounds the Qinghuai Rivers. It was built by special bricks engraved the name of every craftsman, selected exquisite materials and had wonderful technique, and harmonious with the special geographical situation of Nanjing. Unique shape
and sophisticated technology reflected the artistic style, technical level and aesthetic viewpoint of that time [2] (Fig.3, Fig.4).

So the ancient city wall forms the unique city characteristic of Nanjing, becomes a famous masterwork model in ancient city architecture of China. It has important research value in history, culture, political and military and so on.

While during the long-term development of the city, a large part of walls were completely destroyed and this is a loss in the spread of the urban history which can never be compensated for.

Base on this serious situation, scholars, government officials, planners, designers, and citizen are interested in considering ideas and alternatives in the use and protection of this wall. Some peoples suggest that the complete location and position of the wall should be replicated. Such proposals may generate traffic congestion points at the old city gate. And more thought needs to be put forth concerning the land-use and design of a reconstructed wall with existing buildings and land-uses. In addition the city wall should become eternal cultural symbols and spiritual memory and be considered as an educational tool, woven into the modern culture of the people in Nanjing.

II. THE VALUE AND SIGNIFICANCE OF ANCIENT CITY WALL RELICS

A. Reflection on history

Architecture is not only the product of an age but also the symbol of civilization. The historical architecture existing now is a body to reflecting both material civilization and spirit civilization of that time. Show its past glory and historical change to people with silent architecture language [3]. Based on the reflection upon the history, we humans produced various unique cultural landscape, and they developed with the time from generation to generation and eventually accumulated into a whole set of cultural landscape system (Fig.5).

Famous architect Wu Liangyong said:” A city writes its history everyday. Today’s new construction is tomorrow’s history. Future people see today just as today’s people see yesterday. Culture always continues and the city contains untapped quantities” [4]. An old house, an ancient town and even an old tree, they all just might be dilapidated antiques from an utilitarian point of view and possibly the obstacles to the development; however from a cultural vision, all of them contains rich and massive cultural values.
A historian once gave his opinions towards the construction of the urban landscape in our country: you will get what we’re having now, while we’ll never obtain what you’ve got now. His words told us a profound truth: any city can not do without history which is non-renewable.

B. Expression of the characteristics

Modern city landscape features should be showed through its deep foundation which belongs to, while the creation of landscape character and the protection of historical culture are reliable and indispensable with each other. [5]. The formation of the Ancient City Wall in Nanjing has its historical background and regional characteristics, and it not only contains rich historical culture but also embodies the significance of both culture and society which is peculiar to the city. After centuries of vicissitude changes, the city wall has been integrated with the city of Nanjing and has important influence and role in the development of the city spirit and the formation of both the style and urban landscape space of the city. The wall just makes up the unique style and personality to the city of Nanjing [6] (Fig.6).

C. Sense of belonging

Nowadays, there are many ancient walls in Nanjing, such as Hanzhong Gate, Zhonghua Gate, and the park of Dongshuguan, to name a few. They are a particular factor of the city landscape, an Indispensable part of the city life (Fig.7). It can be said that the memory of a race, the spread of the cultural feature all lie in the protection towards historical sites. Many people living lots of years here can not erase the shadow of the walls which have deeply rooted in the minds of the people in this city, and this makes the spread of urban landscape history possible [7]. The urban landscape also obtains duality in both natural ecology and cultural connotations. Natural landscape which is the foundation of the city and the cultural connotation which is the soul of a city get mixed, interacted with each other and provide the civilians a sense of belonging in their minds.

III. THE PUZZLE OF PRESENT RESTORATION

Great ancient city wall is one of the most important symbols of Nanjing and an important component of historical culture city, and it is also the important embodiment of ancient capital style. From 2004, Nanjing government sets up a special headquarters and a total sum of 1,660 million Yuan to repair the remains of ancient city wall, hoping to connect it as a whole like an “emerald necklace” surrounding the ancient capital and make good preparations for world culture heritage’s application.

Obviously, to protect the ancient historical and cultural relics is a beneficial thing. But the key point is if there is something wrong with the protection purpose and operation methods in protecting the ancient wall? Take a look at the several sections of the ancient walls which have been repaired, we see many problems coming along with the reconstruction and restoration.

A. The pressure of traffic

Take the Biaoying Gate for example, the reconstruction of which was just finished. The disconnected city walls which stood apart on either side of the east-west road now have been connected together. To some extent, it depresses the sight of landscape space and makes the limited road space more cramped. After the ancient city wall reconstructed, all vehicles pass the wall under the gate and make traffic congestion more problematic. Traffic jam always occurs, especially in the rush hour, and Houbiaoying Road becomes a huge parking place (Fig.8, Fig.9, Fig.10). Similar situation also occurs in Wuding Gate located in south of Nanjing. The reconstructed city wall cuts off the smooth traffic, and increases the pressure of traffic directly.
B. Image of inter-face

There are great differences between the new and ancient city walls either in the color and shape of brick or in construction technology. People can obviously discover the trace of inter-face and regard it as ‘sham antique’ (Fig.11, Fig.12). Shall we reconstruct heritage or just “connect channel”? History would never come back, and destroyed culture heritage could never be copied. If the new and ancient, the history and the modern must be connected together, we shall simply see a ‘nondescript’ at last.

C. Broken from surrounding environment

The city wall of Zhonghua Gate in south of Nanjing has been repaired already, but in the west area of this gate, an old and shabby residence could be found easily. People live here for generations, and their lives have integrated with the ancient city wall. However, the word of “Demolition” has been printed on the broken wall many times, which shows this historical area
shall not exist in the near future (Fig.13). How to maintain the relationship between the city wall and people? How to continue historical culture which has existed for hundreds of years?

![Fig.13 Overlook the old houses from the city wall](Copyright2010 © Chen Rong, all rights reserved, used by permission)

Although it is considerable in scales of Nanjing ancient city wall, it is a little bit far away from the current lives of ordinary people. Only focusing in the protection but no creation will not meet the demand of development of human beings. The criteria of social appraisal is whether it is benefit to development and useful to people’s life in future in spite of earning good reputation simply. In this case, although the city wall has been saved in form, there is not any combination with creation with inheriting in modern life and the idea of green life at all. Without the replying of fresh material, the spirit connotation of ancient city wall is disappeared gradually. In spite of the great scale or structural integrity, the ancient city wall is just a worthless building at all.

IV. CONTRAST: FOREIGN RESEARCH STATUS

Because of the advantages of scientific technology and economy in western developed countries, urban landscape is always in the top based on the idea of taking tradition as the resource of beliefs support and dominates the trend of development. While its practical scale is wider and wider, the objects involved are more more complicated, and participants are more more diverse. It not only pursuing form and function, but also narrative and symbolic. It not only concern of space, time, materials, but also make the human emotion and culture relation into the design inspiration. People put emphasis on the natural resource and biological rhythms, and pull the modern art in the daily life.

Especially in the explore of meaning to garden design in the end of 20 century in USA, while people pursue the city space culture mark and space sprit, it caused more and more concern and reflect to the protection and reuse to the historical heritage. Modern urban landscape space can embody the historical mark and culture sprit in the layout and style instead of be involved in the current culture tide [8]. It just likes the pulse jumping in every corner of the city. Thus, we should put efforts to excavate the local historical and cultural heritage, to embody the local character and historical culture mark, look for the relationship between landscape and space spirit, and develop the design path based on the site, to integrate the natural background, historical culture mark, and local characters as a whole, to create the unique green space landscape.

In November, 1976, the United Nations education committee summarized five common view about history environment problems all over the world: “History environment is part of daily life; history is an expression of the past; history bring diversity to our life (the same as cultural diversity); history can deliver the richness and diversity of cultural, religious, social activities to later generations most exactly; protect and conserve historical environment and modern life, is the basic elements of landscape planning and land development”.

Any city has its developing trace based on its historical background when the city brought up and developed. It is very valuable and is the basis of the research on geographical changes in the development and update creative. So, many famous cities abroad all take the strict measures to protect historical culture heritage in order to make the urban modern construction and historical culture heritage as a whole, while modern civilization and historical culture are both be protected well [9]. So it not only shows the new look of modern civilization, and retained the splendid history and culture.

V. ANALYSIS OF SEVERAL CONCEPTS

A. Conservation or protection

Due to the confusion, several concepts should be defined first. Conservation? Or protection? Or recovery? From the perspective of repair status, construction department is inclined to conserve and recover the city wall. Conservation is to maintain the original status of heritage while protection is repairing, reconstructing or modernizing heritage on the basis of keeping the characteristics and scales of heritage [10]. There are difference between conservation and protection. Thus, different processing measures are used. The process simply conserve historical relics lacks the participation of subjective initiative, while protection take more attention to the understanding and creation of historical heritage. It is creative reserves based on deep understanding on history, culture and life. External repair is to recover form only, while the protection rooted in ideology is the true protection [11].

B. Protection does not mean recovery

The protection of historical relic is from the deep understanding of culture heritage protection. The purpose of protecting historical heritage is not completely recovering its original status. It is very natural for a nation to pursue its own culture tradition and image stand for itself, but it is obviously superficial if we just think it as (or put hope on) some architectural symbols, form or style in past time or specific region [12].
As for Nanjing, the ancient city wall is not only a kind of material carrier, but also a kind of spiritual supporter. It infiltrates in the typical urban characteristic. External repair is to recover the integrity of form only, while the protection rooted in ideology is the true protection. Respecting history, protecting heritage, and carrying on landscape culture and combining all these landscape elements with urban landscape space forever, become the eternal spiritual dependence and cultural symbols of city.

C. Protection and use

In China, protecting or using historical heritage is always in the status of contradictions. Some cities make full use of historical heritage to gain profit, and protection purpose is deviated. Some cities put their emphasis of the reconstruction and imitation, neglecting the source of historical culture, which results in not being able to continue the urban historical heritage in the long term, and becomes a kind of “protective destruction”.

How to combine protection with use is an eternal topic. Use should not the opposite side of protection. In New Zealand, government takes the idea of “using as well as protection”, revises the laws and regulations of protecting culture heritage, leads the culture heritage protection into the real life of human beings, and prevents culture heritage from becoming “cold heritage” carrying a mere shell.

VI. WAYS OF REUSING OF WALLS IN URBAN LANDSCAPE

A. Taking good care of historical walls

During the long-term development of the city, a large part of walls were completely destroyed and this is a loss in the spread of the urban history which can never be compensated for. The whole length of the ancient city wall was 33.676kms, but now it is only 23.743kms long, and about 10.876kms no longer exists, 1.8kms remains to be repaired [13] (Fig.14, Fig.15, Fig.16).

Whether as spiritual home of human beings, or the inexhaustible resource of economical development, city needs to protect, repair and make good use of historical culture features deposited during the long-term natural evolution process. The updates of city can not take the ruin of heritage as price. All of the remained historic construction and the urban landscape pattern are art treasure to future generations. Therefore, we have to protect the existing walls and do reasonable repair in the spirit of “making it as the original” rather than connect blindly, in other words we should maintain its previous and precious true looks of the wall.

The most precious characteristic of cultural relics is its natural character. To protect cultural relic is to protect the whole existence process from its birth until to take some measures. From this process we can gain several information, that is, various values of its historical, cultural, scientific, emotional, and so on. So protection is not only to protect the cultural relics itself, but also to protect the whole necessary space environment around the cultural relics [14].
B. Establishing whole protection concept

The main goal of “Whole Protection” is to guarantee that the heritage in the architectural environment is not to be destroyed, and protect main buildings and natural terrain under well protection, meanwhile ensure what is being protected fits the need of the society.

The protection of historical culture depends on the conservation of historical remains and the surroundings around. Conservation and construction of historical sites include not only cultural heritage and natural resources, but also the natural and historical environment around them, during practical protection activities [15]. That is to say that we should not just focus on “a point”, “a bigger area (surrounding area)” should be taken into consideration. So the sites can be fully integrated with their surroundings, thus the continuity of history and culture can be maintained [10]. Consequently, a whole protection concept should be used during the conservation of Nanjing ancient walls. The walls, the moat, the Qinhuai River and the surrounding residential buildings should be properly integrated into a historical street block which can mirror the views of a particular period in history (Fig.17, Fig.18). Not every building in the block is endowed with historical value, but the whole surroundings composed of the walls and moat definitely possess a real value in heritage inheritance [16].

C. Blending into the lives

The ancient walls in four cities: Nanjing, Xingcheng, Xi’an and Jingzhou united for legacy applications in 2006, and eventually entered the pre-selected list. However, there are still many difficulties in successfully making it. The UNESCO has recently made some switch in the choosing of heritages from the preference of memorial buildings to the sites which contains human sentiment [17]. Taking successful legacy applications for example, we can see most of the heritages reflect a kind of traditional lives and cultural status, such as the ancient towns in Pingyao and Lijiang [18].

In France, there are now 91 historical and cultural protected areas containing 40 thousand heritages, in which more than 800 thousand residents live. The designated areas are not under enclosed protection. Residents move in, thus, changing them into tourist attractions or Art Zone. Instead of frozen protection, these areas are injected with vigor and energy: People live their lives as usual but with their doors open to the outside, so they get to know the history and culture of their locality.

As a result, a key point in the protection of the walls in Nanjing should not be neglected: they’d be blending into the lives of people completely. They should be designed for the surroundings and adapt to the natural process of landscape areas, and all of the above all stand on the cornerstone of a profound understanding of the nature [19]. The link between the walls and the people shouldn’t be ignored if we want the legacy applications to go smoothly. The walls should show the outside a new appearance which is in harmony with the natural process and the cultural activities rather than keep the modern society and the heritages isolated from each other. They should take the spirit of a particular place and significance of the times.
eventually spread forever.

D. Achieving sustainable development via recycling

Protecting the historical civilization and maintaining the regional characteristics is the only way in shaping the personality and ensuring the sustainable development of a city. Thus, the recycling of the walls in urban landscape is undoubtedly of great significance.

Modern cities have rich information, developed technology, fresh concept and new ways in surviving, so the design of the urban landscape, by mining the rich living resources, can make the heritages show its unique glamour with more vigor and personality. The history has its own continuity which is a long-line connecting the past and modern life with its various methods. From this point of view, the old style is not the things we’d keep, and instead we need the ways, which can make the continuity more fresh and vivid, we can reuse or reshape [20]. So, the recycling of the heritages not only means a deep understanding of the urban history, but new and fresh vigor should be injected in landscape. With the help of new materials and technologies from modern society, we can make the urban landscape more diversified, more flexible and also can perform more functions, thus to achieve a High-sensitivity touch between human beings and the landscape. So new connotations and formations can be endowed with the city, thus the memory towards history can be maintained [21].

To sum up, the tradition of culture is an eternal changing process which considers the continuity as its most important feature [20]. Only through the full use of language and means peculiar to a place and the display of its traditional elements, can the recycling of walls in modern landscape be ensured and eventually spread forever.

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