Application of Traditional Chinese Gardening Elements in Modern Garden Design

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Abstract
With the deepening of China urbanization, continuing expansion of the urban area and increase of population density, people cling more to the natural environment and landscape, pursue harmony with nature and hope to beautify and improve their living environment by landscape planning and design. Culture and leisure needs and individual pursuit of gardens have become an important part of urban life. Traditional Chinese garden is the epitome and precipitation of traditional culture, and its functions and beauty are implemented and demonstrated through the flexible use of various elements of gardening. In modern garden design, how to use high-tech tools and new artistic handling of these elements of the traditional Chinese garden to achieve the harmony of the natural landscape and cultural landscape has become the focus of the Chinese government at all levels and the public’s concern. This paper outlines the gardening features of traditional Chinese garden and analyses the characteristics of four basic gardening elements of traditional Chinese garden: architecture, waterscape, plants and rocks. Based on the analysis, it discusses how to use the traditional elements in modern garden design to design modern garden scenery which conforms to city culture and scenery characteristics, which not only embody the cultural heritage but also interpret the modern scenery garden design concept that gets rid of the stale and brings forth the fresh.

Key words: Chinese gardens; Gardening elements; Garden landscape; Modern design

1. Gardening Features of Traditional Chinese Garden
Traditional Chinese garden is not only a product of history and culture, but also a microcosm precipitated through the Chinese tradition and culture. As people’s pursuit for living environmental quality continues to improve, use of traditional garden design ideas in the modern garden design is just one example of such pursuit. Having experienced a wave of post-modern architecture of the West, the traditional garden design has returned to its original state. People begin to abandon the so-called architectural form and function and chase compounds/mansion once owned only by tycoons in southeast China in the past. Now, traditional garden courtyards have become the true reflector of the entire housing quality there.

The classical Chinese garden was a landscape garden style created during the Shang Dynasty more than three thousand years ago. It includes the royal gardens owned by the emperors or the imperial family, and the private gardens created by government officials, scholars, poets, merchants, etc.. The traditional Chinese garden is one of the masterpieces of Chinese culture, which integrated art, nature, and ideas perfectly to create ensembles of beauty and harmony. Not only its design and construction techniques, but also its artistic effect has made great influence on the development of landscaping in China.

Traditional Chinese garden usually integrates houses and gardens, combining leisure, recreation and residence together. The reason for this kind of residential building landscape lies in lack of natural landscape for people
living in densely populated cities. They are unable to enjoy the pleasure in admiring natural scenery and inaccessible in relaxed living environment and visual experience.

China attaches great importance to cultural atmosphere construction in the traditional courtyard, such as nomination and plaques (horizontal inscribed board hanging on the hall, indicating its function or character of its owner) of the hall of a building. Such cultural atmosphere construction means to serve as an important way to add fun to garden culture, as well as to retain history and culture, house design and gardening fun, which has a significant impact on cultural life, material life and spiritual pursuit today.

Due to the influence of philosophical thoughts, culture and art, and landscaping techniques at different times, traditional Chinese garden design is endowed with a distinctive time feature, among which the most representative one is private gardens of the Ming and Qing Dynasties. Courtyards of private gardens designed and built during that period were deeply affected by the socio-cultural and economic development. Artistic construction in landscaping design, winding-path-leading-to-a-secluded-quiet-place landscaping technique and exquisite carving as a fashion implicitly form the vivid beauty, fresh and elegant. Representatives of traditional garden courtyards are Humble Administrator’s Garden in Suzhou, Ying Garden in Yangzhou, etc. In traditional courtyards, man-made landscapes are the principal part and pavilions, other buildings silhouetted against each other as to form a complete and unified garden art, which reflects thoughts and cultural tastes of its owner, the prevailing cultural trends and economic development, and the cultural accomplishment and spiritual sustenance of the master of the garden.

2. BASIC GARDENING ELEMENTS OF TRADITIONAL CHINESE GARDEN

The design of Chinese garden was to provide a spiritual utopia one to connect with nature, to come back to one’s inner heart. Traditional Chinese garden landscape composes of four major elements: architecture, waterscape, plants and rocks, with significant geographical and cultural characteristics and imitative in landscape design.

A typical Chinese garden is enclosed by walls and includes one or more ponds, rock works, trees and flowers, and an assortment of halls and pavilions within the garden, connected by winding paths and zig-zag galleries. The traditional Chinese garden presented a series of perfectly composed scenery step by step to the visitors instead of letting them see all at once. The famous Ming dynasty garden designer Ji Cheng’s instruction is to “hide the vulgar and the common as far as the eye can see, and includes the excellent and the splendid.” (Hardie, 1988)

Architecture is a very important and inherent part in the traditional courtyard, and plays an irreplaceable role. Classical gardens traditionally have these structures: the ceremony hall, the principal pavilion, the pavilion of flowers, the pavilion facing the four directions, the lotus pavilion, and the pavilion of mandarin ducks. Towers, galleries, bridges, Windows and doors are also important architectural feature of the Chinese garden. In traditional courtyards, buildings are often integrated with other scenes to form a style based on the architecture. In modern garden design, buildings generally do not have the functional significance, but it can obviously present a similar architectural space. This is the inheritance and development of traditional culture.

Waterscape is one of the important elements of the traditional landscape garden design. Chinese garden usually features a central pond or lake and several streams. The main buildings are usually placed beside it, and pavilions surround the lake to see it from different points of view. The traditional garden waterscape design shows superb artistic design and construction techniques in terms of the use of natural water bodies. Various water bodies have differed handling methods, but each method focuses on combined views of water landscape and demonstrates selection of water element. Guo Xi (Song Dynasty) in Elegance of the Bamboo and Spring states that mountain lives on water and water becomes charming with the mountain. In traditional garden waterscape design, static beauty of water and its flowing beauty is generally embodied.

In traditional gardening, plants often serve as landscape for appreciation. Well-spaced trees in the garden are of different shapes and height, and can be found everywhere. Different seasons and blooming time of flowers are taken into account, so that flowers can bloom and beautiful scenery can be appreciated at any season in the garden. In traditional garden design, selection and use of flowers obviously have anthropomorphic tendencies. The bamboo represents a strong but resilient character; the pine represents longevity, persistence and dignity; the plum tree represents rebirth, renewal and strength of will. In plant grouping, plant spacing and heights are well arranged to form a screen-like scattered landscape, so that the landscape has a sense of movement, both independently and connectedly, and spatial morphology of different levels. The Landscape with isolated planting is mainly appreciated for shapes, leaves and blossom, while landscape with group planting concentrates on exquisite landscaping. Scenes like “willows planted on embankment and near a bay”, “a footpath under peach and plum trees”, “prune trees planted around the house” and “bamboos serving as the window” basically reflect plants landscaping in the traditional Chinese garden design.
Rocks in a garden are indispensable in expressing traditional form of landscaping, and reflect the deep influence of traditional culture on garden design. In terms of the rock, our ancestors exhaust its functions and dig into beauty of rocks in various shapes. Rocks are used in landscapes that serve as the specially arranged main body of the garden, and can also be allocated with water and plants to form a beautiful landscape with certain artistic conception. Also it functions as changes of scenes and scenery barriers. The ancients preferred quaint and strange ideas in landscaping designs, such as peaks rising one after another and ravines winding back and forth. When viewers walk through the landscapes, light and shade alternate, resulting in an unpredictable, confusing and complicated sense, which shows the charms of garden landscaping.

3. USE OF THE TRADITIONAL ELEMENTS IN MODERN GARDEN DESIGN

The modern garden design, on the basis of inheriting and developing traditional gardening achievement, combining the development of times, according to the characteristics of city gardening scenery, integrating the modern design concept and new material, has broken through traditional gardening model in the form of expression and method of process. It comes to be more flexible in choosing and using the traditional gardening elements and combines the modern garden design method and gardening techniques to design a modern garden scenery which conforms to city culture and scenery characteristics, which not only embody the cultural heritage but also interpret the modern scenery garden design concept that gets rids of the stale and brings forth the fresh.

3.1 Use of Architecture in Modern Garden Landscape Design

Architecture plays a main role in garden scenery and specific architecture model always comes to be an important character of garden landscape. For function of garden architecture in scenery space, its viewing value is more important than utility function, so the consideration of artistic effect of scenery becomes quietly important and construction of space artistic concept should be valued in landscape. Therefore gardening architecture should pay attention to site selection and layout, ratio scale and model and texture to make architecture and environment to coordinate and unify with each other in the nature. It can be a focus to control the landscape and condense the line of sight. Also it can be functioned to divide gardening space and organize sighting route.

The modern garden architecture combines with natural environment and adopts modern landscape design method and pay attention to the use of various materials and techniques in space arrangements, scale ratio and model color. Therefore, compared with the past, the function of modern gardening architecture landscape has been greatly expanded. For example, the individual building with small volume in gallery, memorial hall and exhibition hall of gardening architecture is formed by courtyards which is enclosed by individual building and matched by plants and rocks to form an elegant landscape space, which fully show the cultural connotation of modern gardening landscape.

3.2 Use of Waterscape in Modern Gardening Landscape Design

In the garden landscape, waterscape is an indispensable element, especially in the modern landscape design, the proper expression of waterscape gesture and style can leave people infinite imagine. Modern garden landscape designer makes a lot of wonderful designing work with the waterscape as the main body.

For example, You Shan Mei Di Resorts in Tai An city inherits the expression of dynamic beauty of traditional garden waterscape, uses the modern technological means and expresses the formal beauty of dynamic waterscape. Beautifully scattered and curved stacking water and distinct water layers form a splendid cascade to fall down and the main body of waterscape surrounded by green trees and dynamic inverted image in the pool show the beautiful scenery of Tree City in front of people.

Ira Keller Fountain Plaza located in Portland, Oregon and designed by Halprin Office is classic in modern waterscaping designs. By such design, layers of falling water and polygonally arrayed water converge into a spectacular and roaring waterfall cascades pouring down, which will showcase the magnificent waterscape in nature.

In Fountain Water Garden located in Dallas, Texas and designed by Kelly, spring unceasingly gushes through the down-pouring waterfalls, forests are luxuriantly green, lush trees are reflected in the pools, and jubilant sounds of water, water curtain walls, steps formed by water and different shapes of musical fountains present in front of people the beauty of the wooded mountain city.

3.3 Use of Plant in Modern Garden Landscape Design

The modern garden design continuously develops on the basis of inheriting the traditions. The modern plant landscape design tends to be sparse, rhythmic and metrical for the overall layout of plant cultivation. It is more elegant and delicate than traditional classic garden with tall and strong arbors, low shrubs and cover plants to make exquisite landscape and rich sense of layering, which leave people more room to imagine. All kinds of trees, various flowers and grasses matted on the ground make an abundant stereoscopic landscape effect.

Now the use of all kinds of gardening plants does not limit by regions. There are different and various
models that are formed by plants. The leaves, flowers, fruit and stems are various with vivid patterns, because they are presented with different gestures and patterns during different phases of growth with distinct seasonal characters. Abundant and exquisite gardening landscape effect can be created with all the characters of these plants and people can sense the charm of different regions and seasons.

For example, Center Garden of Phoenix, Arizona, USA designed by SWA Group, gorgeous lawns, flowers and plants are organized into a flat pattern, through which curved paths like the opening screen of a peacock has a great sense of rhythm and is decorative. Environmental design of the headquarters of Sirre Petroleum Group in Paris, the gentle slope lawns in the northeast that set off the main building monomer are not only filled with more sense of movement than the traditional landscape gardens and strike contrasts by inserting an in-between wall (hard landscape) between hard and soft textures.

### 3.4 Use of Rocks in Modern Gardening Design

The rockery is a unique expressing way of Chinese traditional gardening landscape arts and rocks can be called as the backbone of gardens. The construction of rockery should conform to the requirements of overall layout of gardens and landscape composition. It should be matched and positioned according to its function and relations with other landscape elements, for example, it can be located at the center of squares or in the flowerbed or pool to be a base of scenery construction and pavilions. In a word, it should be constructed depending on the environment and it should be corresponding with the environment.

A single rock in the nature is not noticeable, while a single rock in the modern garden landscape can bring people to think of the beauty and interest of the nature. It can be located in front of the yards independently and scattered besides the road against flowers to arrange a model and make scenery. For this kind of construction of rocks, firstly, it should be particular about choosing rocks. Image perception requires the rocks should be exquisitely carved or primitive simplicity with characteristic shape, color and texture and “lean rocks”, “wrinkled rocks”, “leaking rocks” “penetrating rocks” are regarded as best rocks. Secondly, it should be proper in arrangements and pay attention to appreciate environment and conditions. As long as the position, size and composition of picture are well arranged, there will appear interest of “exquisite rockeries” and “vivid stones”. For example, the Rui Yun hump of Shuzhou, Zhou Yun hump of Hangzhou western lake and Yu Ling Long of Yu Yuan in Shanghai are all good examples of rock constructions and they are called as “Three Famous Rocks” of Jiang Nan districts in China.

The modern garden design adopts the concept of “taking its outlook from a distant place and taking its texture from a near place”, taking into consideration of the visual viewing conditions and the space environment of corresponding landscape elements and considering the detailed texture of rockeries from the perspective of dynamic appreciation. Chain of mountains is round and thick and cliff is dangerous and inclining. Different landscape character can be formed with various shapes of rockeries including mountain lithology character and natural image character. For example, laying stones of rockeries in Ji Nan Da Ming Lake can express itself different gesture and shape by use of the shape and material of rocks, contrary of Yin and Yang and texture of rocks. The stone peaks of Da Ming lakes are green and upstanding, flowers and trees are flourishing, water in the lake is rippling and weeping willows along the lake form special scenery of lake and mountains in spring city of Ji Nan.

### CONCLUSION

In sum, China’s modern garden design adheres to inheritance and development and has been gradually shifted to the form of abstraction, metaphorization and personalization. In addition, architecture parts, such as walls, corridors, columns and sculptures, floor coverings, rock formations and waterscape, together make up hard landscape materials in the modern landscape design. Such as garden residence can be interspersed, an indoor garden and an courtyard-made indoor can be achieved; plants, water, rocks and other elements can be brought indoors, and sense of enclosure in the room will be weakened to make it more transmitting and ventilate, and reach the traditional garden prospect of “one in another”.

At present, China’s modern landscape design already utilized many traditional elements of landscape gardening. We believe that the traditional landscape gardening still has much valuable creative experience awaiting us to dig, think and research. Chinese designers should apply more of the essence of traditional Chinese landscaping culture into modern garden design on a wider range to elevate economic development and cultural construction in China to a new stage.

### REFERENCES


