A Comparative Study of the Composition and Transformation of the Facilities in Fuxing Park and Zhongshan Park, Shanghai

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Abstract: This paper aims to compare two processes of fusion in design—the fusion between French and Chinese landscape styles and that between English and Chinese landscape styles—via a comparison of the facilities and transformations in Fuxing Park and Zhongshan Park, Shanghai. The period studied includes the period of concessions (Period I) and that of the People’s Republic of China (Period II). Through a literature survey tracing the development of the facilities and features and quantitative analysis based on the plan drawings of elements such as hills, water bodies, flowerbeds, lawns, architectural installations, and pathways, this paper describes a comparison of the facilities and transformations in the two parks. Conclusions: (1) As former settlement parks, both have a diverse landscape style, because of the eclectic landscape style popular in the 1920s. (2) As modern Chinese parks in the stage before the Cultural Revolution and the stage after Economic Reform, both parks developed recreation facilities with Chinese elements. (3) In Period II, Zhongshan Park made more changes to its English-style landscaping facilities than Fuxing Park made to its French style landscaping facilities; thus, the increase in Chinese style landscaping features was more marked in Zhongshan Park than in Fuxing Park.

Keywords: Fuxing Park, Zhongshan Park, Shanghai, composition of facilities, transformation process

1. Introduction

Urban parks in Shanghai originate from the concession period (1845-1943), mainly influenced by English and French landscape styles. Fuxing Park (FX) (a French-style park) and Zhongshan Park (ZS) (an English-style one) in Shanghai are the two most representative of these landscape styles. After the liberation of Shanghai in 1949, all the parks built during the concession period were taken over by the Chinese government and renovated over the next 60 years. While these parks inherited the landscape styles of England and France, they were eventually combined with the Chinese landscape style. In particular, as the service target changed, the facilities in these parks also changed to match different lifestyles. A thorough understanding of the changes in facilities and their characteristics can not only help protect modern landscape properties, but also serve as an indispensable part of the study of the development of Chinese urban parks and the process of fusion of Chinese and foreign styles.

Past studies on these two parks are mainly about their construction during the concession period and the later reconstruction of some of the facilities. Various official publications on Shanghai architecture have also mentioned these two parks, but these provide only general information rather than an in-depth study on changes in facilities. In addition, the past study on changes in facilities in concession parks is mainly focused on Luxun Park. The objectives of this paper are to clarify the characteristics of the composition and transformation of facilities in the parks of the International Settlement and French Concession, and to discuss similarities and differences in the process of fusion with the Chinese landscape style, using studies of the history of the facilities.

2. Methods

(1) Study Sites

FX and ZS have been chosen as our targets in this study for the following reasons: (i) FX, built in 1908, belonged to the then French Concession and is the best protected French-style park in China; (ii) ZS, built in 1914, belonged to the then International Settlement and is the best protected English-style park in Shanghai; and (iii) both parks are comprehensive parks that have been managed by the Shanghai Park Administration Office since the founding of the People’s Republic of China.

(2) Literature Survey

We have looked at past studies and publications about these two parks, visited the Shanghai Municipal Archives in February 2007, March 2008 and March 2009 to access the primary sources on the concession period, and followed this up with a field survey of the parks. In March 2009, we interviewed the heads of the municipal parks administration about the changes in facilities in the parks after the founding of the PRC.

(3) Study Process

According to the survey of literature, we have divided our study into two parts on the basis of the historical backgrounds and available documentation of these parks (Figure 1): (i) Looking at the parks in the concession period (Period I, 1845-1949) and the PRC period (Period II, 1949-1995); (ii) Using the plan drawing of FX (Figure 1-I-FX) and the plan drawing of ZS (Figure 1-I-ZS) in 1925 as the study materials for Period I; Using the plan drawing of FX in 1992 (Figure 1-II-FX) and the plan drawing of ZS in 1990 (Figure 1-II-ZS) as the study materials for Period II. When
selecting the elements for analysis of the layout, firstly we considered the facilities whose scope could be confirmed to be the same in each of the plan drawings, and next, based on the facility classifications in Article 2 of the Urban Park Act, we selected the hills and water system, the flowerbeds\textsuperscript{19} and the lawns\textsuperscript{20}; architectural installations (including the main rest, playground, sports, cultivation, service, and maintenance facilities, etc.); and the pathways\textsuperscript{21}. In order to specify the style for each element, based on statements in the literature\textsuperscript{22}, \textsuperscript{23}, we referred to the Western garden styles (French-style and English-style) and types (regular style and naturalistic landscape style) in Syukichi HARIGAYA, 1970\textsuperscript{24}, and the art form of the modern Chinese park in Min LI, 1987\textsuperscript{25}. Through the study of the development of facilities, we aimed to really understand the characteristic composition of facilities in the two parks during two periods (Figure-2). In the end, we made a comprehensive comparison of the composition of facilities and the transformations in these two parks.

3. Essential Details about the Parks and Their Historical Backgrounds (Figure-1)

In 1845, British businessmen laid out the first foreign settlement in Shanghai. In 1863, the English Settlement and the American Settlement were combined into the International Settlement. For the management of parks and open spaces, the International Settlement appointed Englishmen as superintendents from 1899 to 1940; the French Concession appointed Frenchmen as horticulture specialists from 1910 to 1943.

In 1909, Koukaza Park, the predecessor of FX, was designed by the Public Works Service of the French Concession with Papot from France as the project supervisor. In 1914, Jessfield Park, the predecessor of ZS, was redesigned by D. Macgregor from Scotland, the then superintendent of parks and open spaces for the International Settlement. Both parks were renovated on a large scale between 1915 and 1926, expanding to an area of more than 10ha each, thus becoming the two largest comprehensive parks in the concession area. Both of these two parks are parks that were built up as a result of the expansion of the concessions\textsuperscript{26}, and the development of the parks led to the evolution of the surrounding areas into residential areas in the 1930s\textsuperscript{27}. When returning the concession area to China in 1943, the Shanghai municipal government renamed Koukaza Park and Jessfield Park, calling them Fuxing Park (復興公園) and Zhongshan Park (中山公園), respectively.

Since the founding of the PRC in 1949, both parks have been administered and maintained by the Shanghai Park Administration Office. During the 10-year Culture Revolution starting from 1966, the administration closed both parks to protect them. Accordingly, they were not seriously damaged at that time\textsuperscript{28}. Since the Economic Reform in 1978, both parks have been maintained and their management later transferred to the district administrative unit in 1990. After 1990, there have been no major renovations carried out in either park\textsuperscript{29}. Both of these two parks are public green areas that were given the most importance in the urban planning of Shanghai.

4. Composition of Facilities and Their Transformation

(1) Composition of Facilities and Their Transformation in FX (Figure-2)

(1) Study of References and Analysis

In 1909, when FX was built, the main features of this park were a rectangular sunken carpet flowerbed; large lawn (overall close to rectangular in shape, the contours of the northeastern section adjacent to the flowerbeds and promenade are regular while the contours of the northwestern section have natural curved lines); music pavilion; and greenhouse nursery, mainly in the French style; apart from some landscaping in the English style. The stables and club, which were originally for soldiers, were later demolished. In 1912, the Vallon Monument and a small animal facility were built (the Zoological Garden moved to the current Shanghai Zoo in 1945). Between 1918 and 1926, the park was renovated to add an oval rose bed, a rectangular lawn and the Chinese Garden (with Chinese rockery, a lotus pond, an artificial waterfall and a creek). On the basis of the existing landscape features in the French style, some landscape features in the Chinese style were also added to FX. In the 1920, FX was formed in a landscape style mainly based on the French style (regular flowerbeds, regular lawns) but also featuring the English style (naturalistic landscape lawns) and the Chinese style (the Chinese Garden). According to the statistics on the population of foreign nationals in the French Concession, from 1915 there were more English long-term residents than French long-term residents\textsuperscript{30}, so it is thought that the layout of the naturalistic landscape lawns reflects the style of gardens of the English. Furthermore, the establishment of the Chinese Garden mainly featuring a hillwater system also reflected the interest in Chinese gardens in the French Concession at that time.

Development of facilities in Period II can be divided into two stages: before the 1966 Culture Revolution and after the 1978 Economic Reform. In the former stage, the Vallon Monument was demolished, and an aquarium, an arts house, playground facilities, a swimming pool and a tea house were built. In the
latter stage, a sculpture on the pool and the Marx-Engels sculpture plaza were added, while the exiting building, arts centre, and Sky Garden (a Chinese traditional garden showing unique stones) were renovated. Therefore, in Period II, FX developed recreation functions and added Chinese elements through an increase in its Chinese style cultivation facilities.

(ii) Analysis of Plan Drawings (Figure-2 I-FX-1-4 and II-FX-1-4)

In Period I, the system of hills and water bodies was composed of the Chinese rockery in the Chinese Garden, a naturalistic water system in the south and the formal fountain in the north. Thus, the Chinese style hill-water system coexisted with the French style fountain. In Period II, the fountain on the lawn was removed, but the rest of the system of hills and water was maintained. The area covered by hills (AH) was decreased to 1706m², only 80.2% of the previously covered area of 2136m² in Period I. The area covered by water surfaces (AW) was decreased to 2570m², 82.6% of the previously covered area of 3122m² in Period II. Thus, the Chinese style hill-water system was renovated in Period I.

In Period I, there were 12 flowerbeds: two large regular flowerbeds in the north, eight small flowerbeds and two entrance flowerbeds, in the French style. In Period II, the large patterned flowerbeds and the flowerbed at the west entry were retained, but all the other small flowerbeds were removed. Though the number decreased from 12 in Period I to three in Period II, the area covered by flowerbeds (AF) was still about 8107m², around 95% of the previously covered area of 8530m² in Period I. The interiors of the large flowerbeds formed four symmetrical parts in both periods and they were made up of a combination of lawns and flowers. Their patterns were different in the two periods but we learned from the literature65 and our on-site survey that the patterns were not the traditional French style in either period. On the other hand, looking at Figure-1, it appears that the contours of the large flowerbeds in Period I were strengthened by the planting of rows of trees bordering the flowerbeds.

In Period I, there were three lawns in the north (the French regular style), west (the English naturalistic landscape style) and the middle (mixed style). In Period II, the lawn in the north was renovated to add a square plaza in the centre, the naturalistic landscape lawn in the west was turned into a pavement, and the lawn in the middle was enlarged. The area covered by lawns (AL) was decreased to 20162m², only 82.4% of the previously covered area of 24456m² in Period I, mainly due to the removal of the English style lawns.

In Period I, the architectural installations in the park were the pavilion in the Chinese Garden in the south, the monument and music pavilion in the mid-west, cages in the small Zoological Garden in the east, combining both Chinese rest facilities and Western cultivation facilities. In Period II, a gazebo, in a traditional Chinese garden architectural style, was built along the water system. A playground, grocery stores and the Sky Garden were all built on the original lawn in the west. A catering building was in the north-western corner, with electronic game facilities and the swimming pool in the east. In addition, the area covered by architectural installations (AA) was 4354 m², almost four times the 1141m² covered in Period I. Both the number and types of architectural installations in the parks increased significantly, and mainly Chinese style cultural facilities and for-profit playground facilities, sports facilities and service facilities were added, concentrated in the eastern and western districts of the park. Functions were enhanced to meet the diverse needs of a municipal level park, and an effort was made to transform the space into a modern Chinese park while also maintaining the characteristics of a French style.

In Period I, the main pathways were the boulevard in the east, a regular pathway in the northwest and the naturalistic footpath in the southwest and the zoo. In Period II, as the lawn in the west and the zoo in the east were paved, the pathway was removed; the footpath to the north of the lawn was renovated, and the secondary pathway to the north of the creek was changed into a footpath. The rest of the pathway was retained. As in Period I, the main pathways were still the main boulevard, the regular pathway and the naturalistic pathway. However, the total length of pathways (PL) in Period II was only 5064m, around 79.4% of previous length of 6379m in Period I. The density of pathways (DP) was 570m/ha, only 88.8% of the 642m/ha that existed in Period I. The main reason for the decrease in area and density of pathways was the large area newly paved in the park section.

(2) Composition of Facilities and Their Transformation in ZS (Figure-2)

(i) Study of References and Analysis

ZS was renovated from the original Zhaofeng Garden, which only had a few trees and simple buildings (including the Chinese pavilion)65. Between 1914 and 1917, a large lawn, mounds, the Rose Garden, a playground and the Experimental Garden (changed into a nursery in 1930) were added, cementing an English landscaping style. Between 1915 and 1925, the park was expanded and renovated, with several landscaping features added, such as lakes, the Chinese Garden, the Japanese Garden (with the Hill Garden and the Flowering Cherry Garden), the Alpine Garden, and a refreshment pavilion, the Zoological Garden, and an orchestral bandstand. While English style landscape features were added, both Chinese and Japanese style landscape features were also built. In the 1920s, ZS was formed in a landscape style mainly based on the English style (the landscaping formed from a combination of the naturalistic landscape style lawn, mounds, creeks and ponds gets lower as it goes from east to west, has undulations, and presents the characteristics of a “Rolling landscape” in English style landscaping) but also featuring the Chinese style (the Chinese Garden) and the Japanese style (the Japanese Garden). In the 1920s, ZS was formed in a landscape style mainly based on the English style but also featuring the Chinese style (the Chinese Garden) and the Japanese style (the Japanese Garden). According to the statistics on the population of foreign nationals in the International Settlement, from 1915 there were more Japanese long-term residents than English long-term residents65, so it is thought that the Hill Garden and the Flowering Cherry Garden is a composition of facilities that reflects the Japanese style garden. Furthermore, just as in the case of the Japanese Garden, the establishment of the Chinese pavilion and the Chinese Garden also reflected the interest in Oriental gardens in the International Settlement at
that time.

In Period II, facilities were added in two stages: before the Culture Revolution and after the Economic Reform. In the former stage, peonies, plum trees, peach trees, laurels, and palm trees were planted separately in special gardens, to display the features of traditional Chinese garden planting; an aquarium, an exhibition centre, a reading room, a swimming pool (changed into a skating rink in 1987), and playground facilities were also added. The Zoological Garden was moved to the current Shanghai Zoo. In the latter stage, a skating rink, restaurant and a small theatre (renovated into a ballroom in 1987) were built. Thus, in Period II, ZX developed recreation functions, and added Chinese elements through an increase in its Chinese style landscaping facilities.

(ii) Analysis of Plan Drawings (Figure-2 I-ZS-1-4 and II-ZS-1-4)

In Period I, there were 11 mounds, one Hill Garden and five water bodies (lakes and creeks), mainly in the south, combining both the English naturalistic landscape style and the Japanese style. In Period II, hill and lakes were built in the extended southwest corner, forming a new system; also, water bodies in the south were all linked, forming an integrated water system. The system of hills and water was composed of 16 hill bodies (3 of which were islands) and 8 water bodies, an increase in number. The AH was 20456m² and the AW was 15257m², almost twice the areas of 10000m² for hills and 5974m² for water in Period I, an increase in area. The Japanese-style Hill Garden and mounds creating the undulations on the

Figure-2  Comparison of Facilities Composition and Its Transformation Characteristics of Both Parks
southeastern side of the park were reduced while the creeks and ponds were combined into one large lake, an island was created in the middle of the lake; new Chinese-style artificial hills were created in the southeastern corner, southwestern section and northwestern section, and multiple ponds were added to the central section and northwestern section, with islands also being created at the same time. Furthermore, the system of hills and water was separated from the lawns, and overall the characteristics of the English style hills and water system were weakened and the characteristics of the Chinese style hills and water system were included.

In Period I, there were one flowerbed at the entrance and two Rose Gardens. All three were regular, and the main Rose Garden (the rose is the national flower of England) in the west displayed 165 breeds in 191729), so it was an English style garden. In Period II, the Rose Garden in the west and the flowerbed at the entrance were retained, and a Peony Garden (the peony is the national flower of China) was added. The Rose Garden was extended, and the AF was increased from 784 m² in Period I to 944 m² in Period II. In the flower gardens the English style was emphasized while the Chinese style was also included.

In Period I, there was only one large lawn in the English naturalistic landscape style, situated in the middle of the park. In Period II, another lawn was added in the west, and the middle lawn was made smaller. The AL was 38132m², only 73.1% of the 52160m² in Period I. The shape of the lawn still conformed to the English naturalistic landscape style; only the middle lawn was made smaller due to the expansion of the water system at its the centre.

In Period I, architectural installations were the Chinese Pavilion, the orchestral bandstand, the refreshment pavilion and the Zoological Garden, combining both Chinese rest facilities and Western cultivation facilities. In Period II, Chinese style pavilions (from west to east: spring pavilion, hexagonal pavilion, and square pavilion) and corridors were laid out in the park. In addition, an aquarium, a reading room, an exhibition centre, playground facilities, a skating rink, a restaurant, and a ballroom were scattered within the park boundaries. The AA reached 7544m², almost four times the 1703m² in Period I. Both the number and types of architectural installations in the parks increased significantly, and the park functions were improved. Furthermore, Chinese style rest facilities were established in a number of locations, and for-profit cultural, playground, sports and service facilities were built up only in the boundary areas. In this way, the spacious appearance of an English naturalistic landscape garden was retained while a space that is easy to move around in, of the type that is often seen in traditional Chinese gardens, was also added.

In Period I, pathways were the stroll-style main pathway in the middle area, secondary pathways and the footpaths linking boundary facilities; the lines of the main pathways were the natural style, in a shape that enclosed the English-style lawn and the Alpine Garden, and they were laid out in an English idyllic landscape style. In Period II, the main pathway was extended in the west, network footpaths were built, the middle main pathway was made smaller and secondary pathways were added to link boundary facilities. The LP was 9198m, almost three times the 3165m in Period I; the DP was 423m/h, twice the 165m/h in Period I. The comparatively simple and rough pathways with a gentle and fixed curvature in Period I were upgraded into twisting, meandering, curved pathways in Period II. After that, influenced by the landscape style of the traditional Chinese garden, pathways became complex, losing the features of the English idyllic landscape style.

5. Comparison of Facilities Composition and Its Transformation Characteristics of both Parks (Figure-2)

(i) From the study of references on the comprehensive layout of the parks, we see that FX is mainly a French-style park with the coexistence of Chinese and English styles, while ZS is mainly a park in the English style, with the coexistence of Chinese and Japanese styles. Both parks took shape in the 1920s. Facilities were added mainly before the Culture Revolution and after the Economic Reform in Period II, to enrich recreational functions of the parks and add some Chinese characteristics. FX focused more on Chinese style cultivation facilities, while ZS focused more on Chinese style landscaping facilities.

(ii) We next compare the systems of hills and water. FX retained the Chinese naturalistic hill-water and the French regular fountain, whereas ZS maintained the English naturalistic landscape style, adding hill-water features in Period II. In Period I, the ratio of hill surface (RH) of ZS was 5.2%, twice the 2.1% of FX; both parks had a similar ratio of water surface (RW), around 3.11%. While in Period II, the RH of ZS was 9.4%, almost five times the 1.9% of FX, the RW of ZS was 7%, twice the 2.9% of FX. Therefore, it is evident that ZS focused more on a system of hills and water, with major transformation in Period II.

(iii) On flowerbeds, we find that FX maintained the French style flowerbeds and emphasized the large regular flowerbeds in Period II, but ZS strengthened the English style while adding the Chinese style. The flowerbeds ratio (RF) of FX was 8.6% in Period I and 9.1% in Period II, more than 20 times the 0.4% in both periods for ZS. We learned that FX placed more importance on management of the flowerbeds than ZS.

(iv) On lawns, FX maintained both the regular French lawn and the English naturalistic landscape style lawn, whereas ZS retained only the English naturalistic landscape style lawn. In Period I, lawn surface ratio (RL) of ZS was 27.1%, a bit more than FX. In Period II, the RL for both parks decreased, with 17.6% in ZS and 22.7% in FX, with a more obvious change of ZS’s RL. Therefore, in Period II, ZS was more concerned with renovation of the system of hills and water.

(v) Looking at architectural installations, we find that in Period I, both parks had Chinese rest facilities and Western cultivation facilities. In Period II, both parks added profitable modern recreational facilities. In addition, FX was more concerned with Chinese cultivation installations, ZS more with Chinese rest facilities. The ratio of architectural installations area (RA) of both parks was 4.9% for FX and 3.5% for ZS, both around four times the 1.1% for FX and 0.9% for ZS during Period I. Both parks saw an increase in number and variety of architectural installations. FX was more concerned with the development of the eastern and western districts of the
park, ZS with the park boundary. (vi) With regard to pathways, FX maintained its main boulevard at the entrance and regular and naturalistic pathways, whereas ZS’s pathway system became more complicated even though it retained the naturalistic pathways. In Period I, DP of FX was 642m/ha, almost four times the 165m/ha of ZS; while in Period II, ZS’s DP increased to 432m/ha, reaching 74.3% of the 570m/ha of FX. Therefore, it is evident that in Period II, ZS emphasized the renovation of pathways.

In Period II ZS underwent more dramatic changes than FX with respect to the three features of the hills and water system, the lawns and the pathways. All of these were facilities that were natural and presented English landscape style characteristics. If we compare I-ZS and II-ZS in Figure-1 and Figure-2, it appears that changes in the form of each element and changes in the mutual relationships between the elements occurred on the east side of the site. More specifically, the hills and water system was separated from the lawn and the mounds creating the undulations were reduced, while the creeks and ponds were combined into one large lake and an island was created in the middle of the lake. The large lawn that was in the center of the park was reduced in size in order to expand the hills and water system, and this lawn was also split into east and west by a pathway. Due to the above changes in the elements of the park and the expansion of the architectural installations, etc., the pathways were upgraded from comparatively simple and rough pathways with a gentle and fixed curvature to complex and twisting, meandering, curved pathways. Overall, the characteristics of the English idyllic landscape style were weakened and the characteristics of the landscape style of the traditional Chinese garden were newly included. Through the process of fusion with the Chinese traditional landscape style as a natural style, the English landscape style park (ZS) was easier to change than the French regular park (FX), or to put this in another way, it is thought that the regular facilities were easier to preserve. Furthermore, looking at it from the perspective of the services target and the managing entity of the park, there was a change from foreign nationals (Period I) to Chinese people (Period II), so it is thought that the transition in the style of the space was also a response to these preferences.

6. Conclusions and Further Issues

This study has discussed the similarities and differences of two processes of fusion in landscape design: the fusion between French and Chinese landscape styles and the fusion between English and Chinese landscape styles, as seen in Fuxing Park and Zhongshan Park, Shanghai. The following conclusions have been drawn: ①As former settlement parks, both parks have diverse landscape styles, because of the popularity of an eclectic landscape style in the 1920s, FX was a combination of three landscape styles, namely the French, English and Chinese. ZS was also a combination of three landscape styles, namely the English, Chinese and Japanese styles. ②As Chinese modern parks, in the stage before the Cultural Revolution and stage after Economic Reform, recreation functions were developed in both parks, and Chinese elements were added. ③In Period II, ZS altered its English style landscaping facilities more than the French style landscaping facilities in FX were changed, with a more marked increase in its Chinese style landscaping features as compared with FX.

In order to clarify the process of fusion of different landscape styles, various elements of the composition of facilities, such as the trees, scenery and composition of axis lines and curve lines in the network of pathways, etc., could be considered, and we intend to examine these issues in future studies.

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Notes and References

11. Interview with Mr. Zhengtian WU and Mr. Zaiqun ZHOU, formerly of the Shanghai Landscape Administration Office.
12. Interview with Ms. GU of the Lawon District Landscaping Bureau (in charge of Fuxing Park), and Ms. Lei CUI of the Changning District Landscaping Bureau (in charge of Zhongshan Park). ③According to the interview with Ms. GU, despite the Second World War and C hina’s Civil War between 1943 and 1949, the park experienced little disastrous damage, except for a few destroyed plants. To have temporal consistency, this research defines this stage as the period of concession.
17. This research analyses the flowerbeds that have been shown in the plan draw- ings. The flowerbed region includes the internal fountain.
18. The lawn area of this research is broadly defined, including the internal open forest, but not the hills and water system or flowerbeds.
19. In particular in the changes to the trees there is a large impact from con- straints such as the length of life and appropriateness of the planting, and these constraints become a major part of the analysis, so in this study we take up the arboretum in the discussion based on the literature survey.