Public Open Space(POS) in China and the UK

A Comparision Study of Design and assessment of Public Open Space in Tianjin and London

Introduction

A large number of new public open spaces, (POS), have been made in China, designed by both Chinese and Western landscape architects. Many suffer from being too similar to western precedents - and yet they are not sufficiently similar in other respects. This research is concerned with the planning, design and assessment of small public open spaces in urban areas (public squares, riverside walks, pedestrian streets etc.).

(1)Why are some public open spaces popular and others unpopular?
(2)How should the quality of public open spaces be assessed?
(3)How should cities plan and design make successful POS for the 21 century?

Many mistakes have been made and this paper lays the basis for an evidence-based theoretical framework for decision-making which will use functional, ecological and visual assessment criteria. Data is being collected in Tianjin, China, and London, UK. It will be analyzed with Geographical Information System software. The paper will focus on an approach to the assessment of public open spaces that could be used before and after open spaces are built.

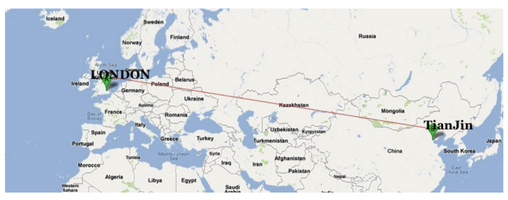
Landscape Design Transformation from Garden Design to Mondern Landscape

The Original influence on Garden Design

Claude Lorrain, "Landscape with Aeneas at Delos" (1672)
One part from the whole painting

Guo Xi (ca. 1020-1090), Early Spring, dated 1072

Location of Tianjin and London



The UK V.S China

British designed this well-known Garden.

Chinese designed this famous Garden

St. James's Park in central London.

Renming Park in central Tianjin.

London Eye in London.

Tianjin Eye in Tianjin.

POS design in China and the West

Urban spaces have been made in European cities for public use since ancient times and have become part of the urban fabric. However, in ancient Chinese cities, the types of space available to the public can be summarized as: city walls, riversides, market place, streets, canals and lakes. These do not include public urban space

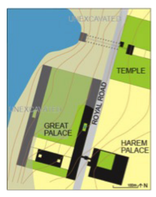
A table to compare the historical POS types in the east and west

Dates	China	Europe
2000BC-1000BC	River	Royal Road
1000BC-500BC	River, Wall, Street	Royal Road, Greece Agora, Italy Forum
500BC-400	River, Wall, Street, Market.	Royal Road, Greece Agora, Italy Forum
400-1200	River, Wall, Street, Market, Canal,	Village, Bailey, Market Place, Tilt Yard
1200-1650	River, Wall, Street, Market, Canal, Lake	Public Square, Paved Market Square, Tiltyard
1600-1750	River, Wall, Street, Market, Canal, Lake	Avenue, Boulevard, Public Square, Market (Palace Garden)
1700-1925	River, Wall, Street,, Market, Canal, Public Park	Public Park, Public Square, Galleria
1926-2000	River, Wall, Street, Market, Canal, Lake, Public Park, Square, Avenue	Most of the above types survived

The Birth of POS in China and Europe

This map shows the location Qin Xianyan is closed to the river and therefore, river became the type of POS at that time.

The ancestors of modern humans chose sites close to water to build their homes Ancient Chinese cities were almost always built near rivers. It was the traditional method of building and had a great number of advantages for military, economic and ecological reasons.



A plan showing the location of the royal road, which could be an example of the origin of public open space in ancient Egypt.

The first western cities known to have public open space were in Mesopotamia and Egypt. They included ceremonial routes and open spaces (Turner, 2005). Amarna is an extensive Egyptian archaeological site with the remains of the capital city established and built by the Pharaoh Akhenaten in the late Eighteenth Dynasty (c. 1353 BC), and abandoned shortly afterwards. The city was located on the east bank of the Nile. The ruins of the city were laid out along an eight km north-south main street, referred to today as the 'Royal Road'

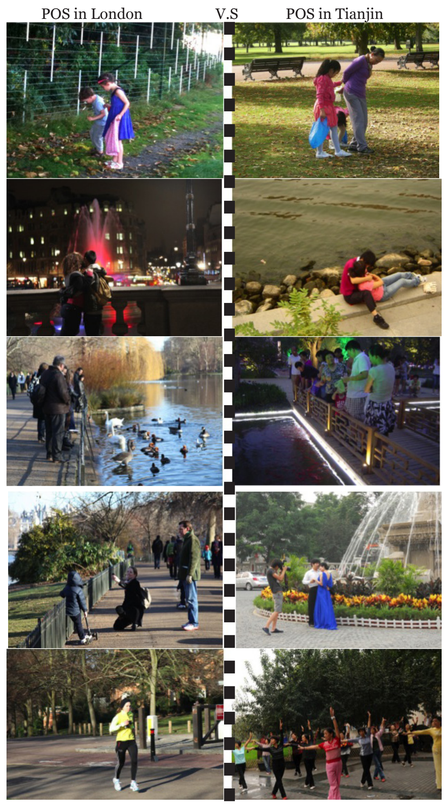
Difference and Similarity of the Use of POS in China and the UK

Difference in Use of POS between London and Tianjin

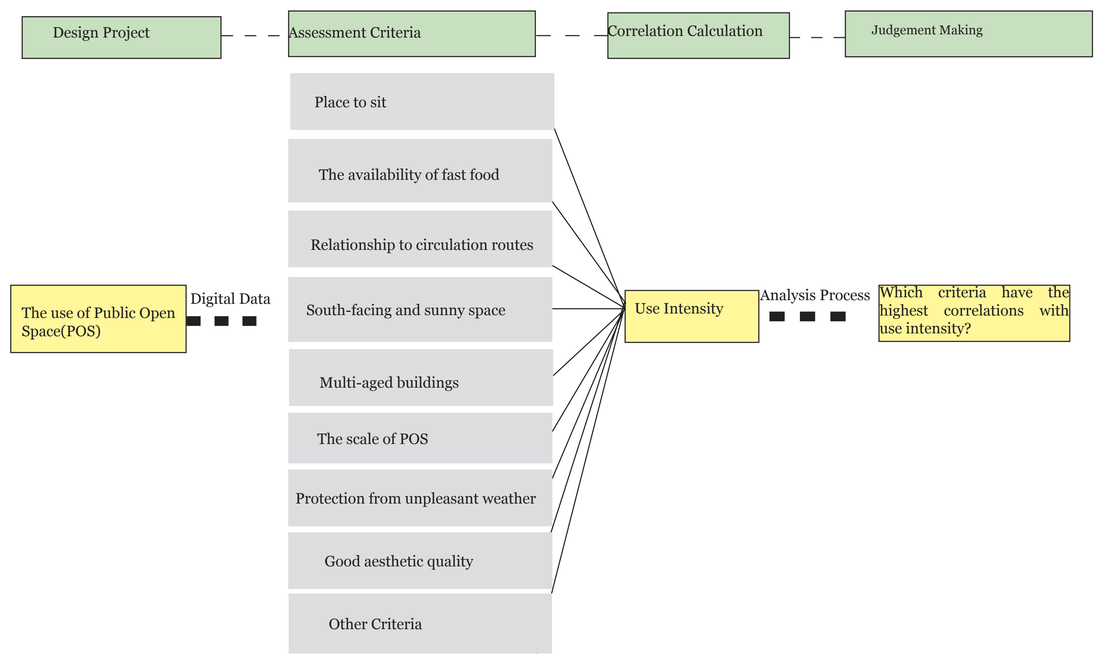
POS in London V.S POS in Tianjin

Similarity in Use of POS between London and Tianjin

POS in London V.S POS in Tianjin



Research Methods



A diagram shows the assessment process of Public Open Space which is disscuessed and used in this research.

The research on which this paper is based involves a systematic comparison of POS in London and Tianjin. Sets of matched spaces were selected in the two cities and survey data on their use and character is being collected. In order to assess and compare their character and use, specific surveys are being made in relation to well-known theories and theorists of urban design and landscape architecture. This includes William H. Whyte, Jane Jacobs, Christopher Alexander and Jan Gehl. To indicate the character of the survey data and assessment methods, the remainder of this paper will focus on two small urban spaces. Hai River Square (Figure 2) and Cutty Sark Gardens (Figure 3) are both positioned between rail stations and rivers. The rivers in both cities were once of commercial importance. Today, the rail stations are used by visitors who, amongst other things, come to see the rivers, for amenity reasons, and to make use of riverside walks. This generates pedestrian flows from the stations to the rivers, as shown on the plans.

Hai River Square in Tianjin is 1.7 hectares and was designed in 2008 (Figure 4). The railway station was built in 1886 and rebuilt in 2008. Cutty Sark Gardens is 1.9 hectares and was design in 1954 and redesigned in 2012 (Figure 5). Visually, Cutty Sark Gardens is much more smaller than Hai River Square because of a overwhelming presence of the ship. The Railway station was built in 1987. The use and characters of these spaces will be assessed in relation to well-known western theories. The intensity of use in Hai River Square and Cutty Sark Gardens is very different. Most of the space is empty in Hai River Square and there are few activities happening in the space, while, Cutty Sark Gardens is very popular. The following text compares these two spaces in relation to design theories.

Hai River Square is located in central Tianjin and is near Haihe River and Tianjin Railway Station. Its main use, in both summer and winter, is walking to the station.

V.S

Cutty Sark Gardens is a heritage area in the London Borough of Greenwich. Seen here in winter, it is intensively used by visitors and local people in summer.

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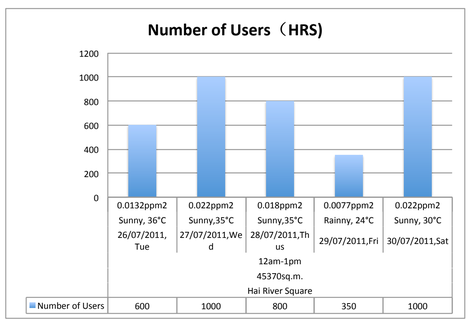
Data Collection and Analysis

Sample Space	Area	Time	Date	Weather	Use intensity (Person per sq.m.)	Number of Users
Hai River Square	45370sq.m.	12am-1pm	26/07/2011, Tue	Sunny, 36°C	0.0132ppm2	600
			27/07/2011,Wed	Sunny,35°C	0.022ppm2	1000
			28/07/2011,Thus	Sunny,35°C	0.018ppm2	800
			29/07/2011,Fri	Rainny, 24°C	0.0077ppm2	350
			30/07/2011,Sat	Sunny, 30°C	0.022ppm2	1000

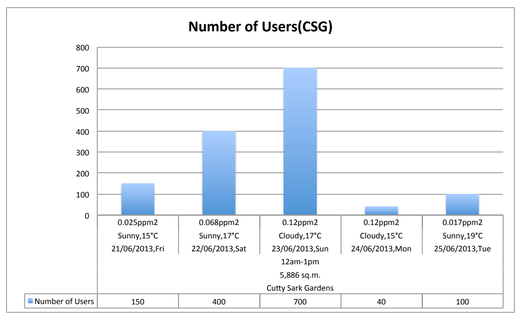
Data collection for Hai River Square in the summer of 2011.

Sample Space	Area	Time	Date	Weather	Use intensity(Person per sq.m.)	Number of Users
Cutty Sark Gardens	5,886 sq.m.	12am-1pm	21/06/2013,Fri	Sunny,15°C	0.025ppm2	150
			22/06/2013,Sat	Sunny,17°C	0.068ppm2	400
			23/06/2013,Sun	Cloudy,17°C	0.12ppm2	700
			24/06/2013,Mon	Cloudy,15°C	0.12ppm2	40
			25/06/2013,Tue	Sunny,19°C	0.017ppm2	100

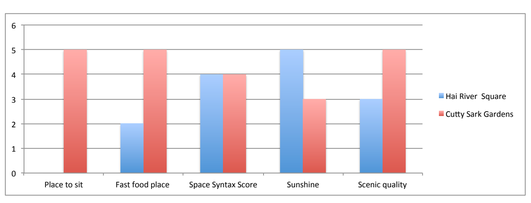
Data collection for Cutty Sark Gardens in the summer of 2013



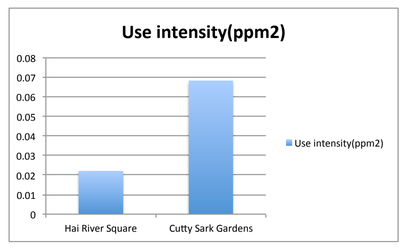
A diagram shows the use intensity from 26/07/2011 to 30/07/2011 between 12am and 1pm in Hai River Sqaure.



A diagram shows the use intensity from 21/06/2013 to 25/06/2013 between 12am and 1pm in Cutty Sark Gardens.



A chart inllustrates the comparitive data of the value of criteria between Hai River Sqaure and Cutty Sark Gardens.



A diagram which compared the data of Cutty Sark Gardens and Hai River Sqaure in a similar weather condition and the same day in the week.

Conclusions

From the preceding discussion, comparing Cutty Sark Gardens with Hai River Square, it is clear that the more criteria from design theory a space satisfies, the more popular the space is likely to be. The use and character of POS in the east and west have both similarities and differences. The research on which this paper is based is not complete but it is already clear that the theories put forward by urban designs and landscape architects are of value in explaining the relative popularity of public open spaces. It appears that, in China, planners and designers have often copied the physical forms of western spaces without taking on the planning principles on which their success depends. It is also the case that theseprinciples are not always followed when making new public open spaces in the west.

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