



Exploring Tourism Image of Cultural Heritage Destination Through Travel Photos: A Case Study of Yangzhou City

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Abstract. Analysis of the content of travel photos shared on social media provided an effective way to explore the image of tourist destinations. In this study, 6 major categories and 21 sub-categories landscape of Yangzhou, a famous canal heritage city in China, were identified as typical image elements. A sample of 400 travel photos collected through major travel sharing platforms in China was analyzed, result shows that cognitive image of Yangzhou city mainly consists of the ancient canal landscape, plants and animals' landscape, pavilion architecture, food, transportation facilities landscape. Then, we explored the color tone, photographic distance, shooting angle of the sample photos, most photos in bright colors with medium and close views show the visitors' happy mood, lots of photos taken with overhead views, show some landscapes aroused the visitors' respect and awfulness. Our research shows that the visual content mining on travel photos makes it possible to understand the tourism destination image, thereby providing an important reference for tourism marketing.

Keywords: Travel photos · cognitive image · emotional image · Canal heritage city · Yangzhou city

1 Introduction

The image of a tourism destination is a collection of people's concepts, thoughts, and impressions of the place [1]. Tourists interpret the meaning of the object, shape the image' of the place in their minds through experiential co-construction [2]. Where do travelers' eyes linger? What scenes frame their memories? tourism destinations need to find, create, and enhance their image continuously [3]. However, most tourism image studies are based on tourist perception questionnaires and textual analysis, and there are few studies of tourism images based on tourism photographs.

2 Literature Review

The study of place image originated in the 1970s with Hunt's concept of place image, the impressions that people hold of non-residential places⁴. Later, emotional factors were added to the definition of the image of a tourist place, emphasizing the expression

of human intuition, attitude, and mindfulness. According to Urry⁴, ‘photography is the materialization and tangibility of the tourist gaze, and the tourist gaze can be expressed through the tourist taking pictures as well as in tourism advertising.’ However, the existing tourism image measurement is based on questionnaires and online text analysis methods, and there are few studies on tourism image based on tourism photos⁵⁶. Relevant studies are biased towards extracting the imagery elements of photo content and text, and there is still room for deepening the integrity and systematization of image perception.

3 Sample and Method

3.1 Study Area and Sample

Yangzhou located in the middle of Jiangsu province and at the intersection of the Yangtze River and the Beijing-Hangzhou Grand Canal. It has been known as “the No.1 city along China’s Grand Canal” since ancient times. With the inscription of the Beijing-Hangzhou Grand Canal of China on the World Heritage list in 2014, Yangzhou, with the richest canal history and relics, became the organizer of World Canal City Forum, and played a leading role in the international exchange and dialogue of civilizations on the Grand Canal culture. It is urgent for Yangzhou to update its image in the context of the construction of the Grand Canal Cultural Belt. Consequently, this paper explores cognitive and emotional image of Yangzhou city through the content analysis of travel photos, expanding the application of tourism gaze theory and enriching and enriching the study of tourism destination image.

From November 2019 to January 1, 2020, travel photos from all 300 travelogues related to Yangzhou on major travel sharing platforms in China, Ma Hive Travel, Ctrip and Meituan, were collected, excluding those with incomplete information, A total of 400 travel photos were eventually taken from the platform as the study sample.

3.2 Scene Classification

To explore the characteristics of attractions, scene category system was developed for the identification of the scenes of travel photos. The composition of travel photos is diverse, but mostly consists of scenes and people, so scenes and people are the basic elements of tourism photograph analysis. Referring the Classification, Investigation Tourism Resources (GB/T18972-2017)⁷, this paper categorizes the content of Yangzhou travelers’ photos into 6 major categories and 21 sub-categories (Table 1).

4 Result

4.1 Analysis of the Cognitive Image

According to the statistical analysis, the most frequent category is A3, with 60 photos (approximately 15%) focus on the canal landscape. There are many famous attractions along the canals, Slim West Lake Tourism Resort, 486 Intangible Heritage Gathering Area, Three Bays of the Canal, Eco-Tech New City, and many other fine scenic spots. The natural and cultural landscapes on both sides of the canal constitute the main gaze area for Yangzhou tourists, the cognitive image of Yangzhou Canal City has a wide range of resource bases and market bases.

Table 1. Category system of travel photos' scene.

major categories	sub-categories	Elements
Landscape and Scenery (A)	Composite landscape A1	A combination of mountains, rivers, trees, and buildings
	Ecological Park A2	A combination of garden and humanistic facilities
	River reach A3	riverbank, watercourse, canals
	Lakes A4	Lakes, such as Mingyue Lake
	Flora and fauna A5	Animals, plants
	Pavilion building B1	Buildings, Pavilions, lofts, etc.
	Brick wall building B2	Bricks, windows, brick wall, etc.
Facility and building (B)	Courtyard architecture B3	Structures in the courtyard, such as stone gates, rockeries, etc.
	Decorative architecture B4	Artwork or floral architecture used to decorate and set off the base building, e.g., stone sculptures
	Transportation Facilities B5	Stations, ferries, piers, and all kinds of special transport, etc.
	Cultural venues B6	Museums, science and technology museums, art galleries, etc.
	Former residence of Celebrities B7	Former residence of celebrities, memorial halls and Museum
	Tower and Temple Building B8	Pagodas, temples, etc.
Cityscape View (C)	Cityscape C1	Modern buildings, road dominated or combined streetscape
	Featured ancient alley C2	Ancient lanes or old-fashioned streets
Humanities Event Venue (D)	Cultural festival events D1	Tourism and cultural festivals
	Performing Arts D2	Theatrical performances, concerts, concerts, and other events
Figure(E)	Tourists E1	Travelers as the focus of photographs
	The locals E2	Local people are the focus of the photos

(continued)

Table 1. (continued)

major categories	sub-categories	Elements
Gastronomy and Crafts(F)	Gastronomy F1	Food
	Traditional handicrafts or souvenirs F2	Local specialty handcrafted or purchased souvenirs

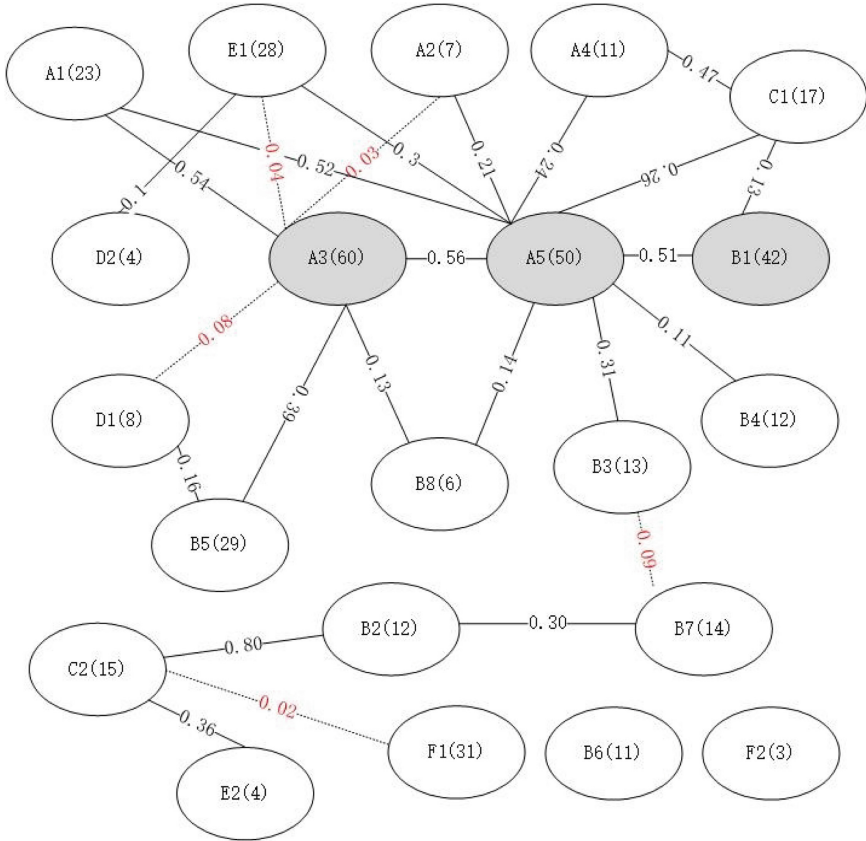


Fig. 1. Aggregate image map

Specifically, the content composition of tourism photographs is shown in Fig. 1. A correlation coefficient greater than 0.1 is indicated by a solid line, while a smaller coefficient of 0.1 is indicated by a dashed line. The correlation coefficients between plants and rivers are strong, indicates that tourists mostly use the plant category as a photo element in their photographs of the ancient canal, architecture, and landscape, which reflects that the image of Yangzhou as a forest city is deeply rooted in visitors' minds. The brick walls are the most relevant to the streets and alleys in the tourist photos,

and it is evident that the brick walls are used by tourists to highlight the antiquity of Yangzhou. The aggregated image of the entire Yangzhou tourist photo reflects the tourist's perception of Yangzhou as a city centered on the ancient canals, flora and fauna, and pavilions and architecture, with food, special old alleys, and various buildings as secondary centers.

4.2 Emotional Image Analysis

Color tone, shooting angles and scene depth of the travel photos reflects tourists' mood and emotion experiences according to Self-consistency theory⁶. Tourists tends to take more bright tones photos in pleasant mood, and when they feel depressed or sad, they usually take dark tone photos. Consequently, bright, and dark tones of photos can visually reflect the visitor's perception of whether the subject is relaxed, happy or scared. Then, different horizontal positions of the camera and the subject will give different results. The shooting angle, refers to whether the shooting tool is at the same level as the subject, forming Heads-up, top-down and upward-looking view of the landscape, indicated that tourist experience the landscape in an admired, realistic, or investigating way. Furthermore, the distance between the photographer and the subject varies with the intimacy shown the scene reflects the actual distance between the photographer and the subject, broadly divided into distant, medium, and close, with different scenes having different narrative styles. The distant view focuses on the general environment and the overall presentation, while close ups and close-ups focus on individual objects, showing the photographer establishing an intimate relationship with the subject.

Color Tone of Travel Photos

An analysis of the color of tourist photographs shows that 86.7% of the photographs taken by tourists during the tour were in bright colors, indicating that the tourists were in a relaxed and happy mood during their visit to Yangzhou. The most used bright colors in tourism photos are flora and fauna, pavilions and architecture, and people. In particular, the plant category tourists. While retaining the basic colors of the plants, the color brightness is increased to make them brighter. Only 13.3% of the sample chose cooler tones, with night scenes accounting for a larger proportion, especially the ancient canals at night, where visitors choose cooler tones to create a sense of the depth of the canals. There are also canal lights, which show the charm of the ancient canal sideways. However, the color of tourists' travel photos is single and there is little contrast between light and dark.

Analysis of Shooting Angles

The common shooting angle of tourists in all the sample photos is the flat view, which can be experienced as a more realistic way to show the scenery seen by tourists and make the landscape more intimate, especially in the river section category, where 52 photos are taken with flat view. The angles used by visitors were 15, 13, and 9 for flora and fauna, pavilion buildings, and transport facilities, respectively. In combination with the sample photos, the elevated views of the landscape, such as the pavilions, show the visitors' respect, admiration, and affection for the landscape. The overhead view was used to photograph food, showing the visitor's love for Yangzhou cuisine (Table 2).

Table 2. Frequency statistics of different shooting angles

Category	Camera angles		
	Looking Up	Flat View	Overhead view
Comprehensive tourist destination A1	0	38	8
River A3	8	104	8
Flora and fauna A5	30	62	8
Brick wall construction B2	14	10	0
Characteristic landscape vignette architectural B4	2	20	2
Cultural Venues B6	8	14	0
Tower and Temple Building B8	6	4	2
Featured ancient alley C2	8	20	2
Performing Arts D2	8	0	0
The locals E2	0	8	0
Traditional handicrafts or souvenirs F2	0	0	6

Analysis of Photographic Distance

The distance between the shots represents the closeness of the visitor to the subject, the closer the shot, the closer the visitor wants to be. Of the close-ups chosen, 22 were mainly of food, reflecting the closeness of visitors to Yangzhou cuisine. An analysis of all the travel photographs shows that the distance between the subjects is mostly medium and far, with 144 and 138 photographs taken, respectively. The mood of visitors to Yangzhou is relaxed, with 18 photographs of river sections topping the list of medium scenes. Of the photographs taken in the distance category, 39 were of river sections and 22 were of pavilions and buildings. The focus of the tourist's gaze is on the Yangzhou River section in both close and distant views.

5 Conclusion and Discussion

Travel photos are valuable source of information to tourism destination image. Taking Yangzhou as a case study, travel photos collected through major travel sharing platforms in China shows that the canal city image is rooted in tourists' perception reflected by their photos focused on canal landscapes. Besides, tourists also liked the architecture in the private gardens of salt merchants in Qing dynasty, accompanied with the flora and fauna landscape creating a tourism image of Yangzhou as a garden city. Local food is also the most frequently to gaze at, such as buns, hot dried shredded pork, and fried rice with egg, thus showing that Yangzhou has an image of a culinary capital in the minds of visitors. Most photos in bright colors with medium and close views show the visitors' happy mood, lots of photos taken with overhead views, show some landscapes aroused the visitors' respect and awfulness. There is a close connection between the flora and fauna and the willow tree, showing the potential of building up the image of Yangzhou as a willow city.

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