
EVALUATION OF RECREATIONAL SATISFACTION OF COURTYARD FISHPOND LANDSCAPE BASED ON ENVIRONMENTAL PSYCHOLOGY

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Abstract

Tourist satisfaction a key evaluation index of recreational spaces. This paper aims to evaluate the recreational satisfaction of tourists with the landscape of courtyard fishpond. The study area mainly covers the courtyard fishponds in Hongcun, eastern China's Anhui province. The main influencing factors of tourists' satisfaction with the landscape of courtyard fishpond were examined through factor analysis and importance-performance analysis (IPA). The research data were collected through a questionnaire survey and analysed on SPSS23.0. The results show that tourists with different attributes vary in recreation purposes; the satisfaction evaluation system involves common factors like environmental attraction, management and maintenance, recreation experience and supporting facilities; the environmental attraction contributes the most to the recreational satisfaction of tourists with the landscape of courtyard fishpond. The research findings provide a reference for optimizing the recreational value of landscape in tourist attractions.

Key words: Courtyard Landscape, Recreation, Environmental Psychology, Satisfaction.

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INTRODUCTION

Environmental psychology is an interdisciplinary field that focuses on the interplay between individual behaviours, experiences, built environment and natural environment. It explores how individuals and environment fit the best from the psychological level (Proshansky, 1990). Recreation is an activity of leisure by tourists within a certain range outside their residence to meet their needs of rest, amusement, culture, etc. Tourist satisfaction refers to a kind of psychological state that is generated by the tourist when comparing their expectations with the actual experience after the tour (Oliver, 1980), and also an effective extension of psychology in tourism management. At present, academic research of tourist satisfaction mainly focuses on different

situation (Liu, Zhang, & Huang, 2018), influencing factors (Hughes, 1991; Li & Wang, 2010; Li & Li, 2011; Ye, Sui Li et al., 2018), Different seasons (Kozak & Rimmington, 2000), satisfaction evaluation and verification based on relevant models (Tse & Wilton, 1988; Malodia & Single, 2017; Pizam, Neumann, & Reichel, 1978; Lian & Wang, 2004; Wang & Gu 2005). Studies have shown that satisfaction is an important factor affecting tourists' loyalty and behavioural intentions (Lee, Lee, & Lee, 2008; Yoon, Lee, & Lee, 2010); through the study of tourists' psychological disposition and psychological needs, it can scientifically summarize the optimal tourism resources, and fundamentally improve the quality of tourism services.

The courtyard is an important part of the traditional residential building space in southern Anhui. Its design not only contains the cultural concept of "unity of heaven and man", "Run simple", but also the sustenance and inheritance of Confucianism. As a world cultural heritage, Hongcun is one representative of the ancient villages in southern Anhui. It is famous for its Hui

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style architecture and exquisite water system planning. Taking the courtyard of civil residence in Hongcun as the study area, this paper quantitatively and qualitatively evaluates the recreation characteristics and satisfaction of the tourists from the perspective of psychology. This shall provide strategies for the later optimization and transformation.

OVERVIEW OF THE STUDY AREA AND SELECTION OF THE COURTYARD

Figure 1. Distribution map of 20 courtyards fishponds surveyed



Hongcun is located in the north-eastern part of Yixian County, Anhui Province, China, and established for more than 800 years. Its unique ecological environmental protection system, especially the construction and protection of "artificial ditch" is fabulous. According to the data records, Hongcun ever had 38 courtyard fishponds, of which 27 fishponds use water from the ditch, 8 from Nanhu Lake, 1 from Yuezhao Water, and 2 from Xixi Water. In December 2018, our research team conducted a comprehensive survey of Hongcun courtyard fishponds by selecting 20 Anhui residential courtyards as research objects. Combined with Baidu satellite map and site location survey, ArcGIS software was used to edit and enter the attributes of courtyards, streets and water ditches, and then obtained the position distribution map of each element (Figure 1). In addition, a comprehensive

mapping and aerial survey of the courtyard fishpond landscape was carried out. It was found that there was only one fishpond for most of the courtyards, and the size of the ponds leading to the South Lake water (sufficient water source) was larger, while that from ditch water (insufficient water source) was smaller. Finally, the Pearson correlation analysis was carried out on the size data (length and width) of the pond using SPSS statistical software. The sig value was $0.000 < 0.01$, indicating that the length and width data were significantly correlated; the correlation coefficient was $0.908 > 0.8$, indicating that the two were highly correlated. Thus, the length and width dimensions of the fishpond follow a certain linear correlation.

DATA AND RESEARCH METHODS

Questionnaire design, data reliability and validity test

American psychologist Kurt Koffka thinks that the environment is divided into geographical environment and behavioural environment. The behavioural environment is created by the geographical environment and human experience, while people's needs determine their psychological environment and the behaviour is generated according to their psychological environment. Through the survey on the 20 fishponds in Hongcun, 16 environmental variables (in the four dimensions of natural environment, social environment, psychological environment and management environment) affecting the tourist's recreation greatly were selected from the two aspects of geographical environment and behavioural environment. According to the selectable empirical sample size in the social survey and the actual number of visitors to each courtyard, 240 questionnaires were distributed. Using the random sampling method, a total of 6 working days and 3 holidays were selected in the 2 months of 2018 (March, July) for issuing the questionnaires, and 218 valid questionnaires were recovered, with an effective rate of 90.8%. Besides, SPSS23.0 software was adopted to analyse the survey data. First, the data was tested by Cronbach reliability method, to obtain the value α 0.712 (over 0.7, high reliability), indicating that the measurement scale used in the study has good reliability, and the questionnaire has a reasonable design. Then, the suitability test was conducted for the

satisfaction evaluation data through factor analysis; it's found that the Bartlett test value was 1064.828 ($P < 0.001$, the data showed extremely significant difference), and the KMO test value was 0.774, indicating that the validity of the scale was higher, and there is a correlation between variables, which is suitable for factor analysis.

Research methods

Firstly, the descriptive statistics was used to analyse the respondents' attribute characteristics and recreation needs, and then the factor analysis was performed to construct the satisfaction evaluation system of recreation environment. Finally, the importance-

performance analysis method (IPA method) was applied to compare and analyse each recreation environment factor.

Recreational needs of fishpond landscape by respondents with different attributes

Based on the survey data above, using the SPSS23.0 software the descriptive statistics was conducted for the respondents' attributes, recreation purposes, and recreation frequency (Table 1). Using the chi-square test (cross-tab), the difference test was performed to explore the recreation purposes of different attribute groups (Table 2). This provided an initial understanding of the demographic characteristics and recreational needs of tourists.

Table 1. Attributes and recreation characteristics of respondent

Items	Category	The proportion /%
Gender	Male	53.2
	Female	46.8
Age	<18-year-old	10.1
	18 to 45 years old	42.7
	46~69 years old	32.6
	>69-year-old	14.7
Professional	Students	33.5
	Civil servants	3.7
	Enterprise staff	31.2
	Retirees	10.1
	Public institution	13.8
	Freelancer	5.0
	Others	2.8
The degree of education	Illiterate	1.4
	Primary or secondary school	10.1
	High school	29.8
	Junior college or bachelor	40.4
	Master and doctor	18.3
Monthly income	<3000 yuan	22.0
	3000~5000 yuan	32.6
	5000~10000 yuan	33.0
	>10000 yuan	12.4
Recreational purposes	Leisure viewing	53.2
	Scientific investigation	16.1
	Practice teaching	19.3
	The sketch of photography	5.5
	Others	6.0
Recreation frequency	For the first time	10.1
	Frequency is very low	15.6
	Every 2 to 3 years	26.6
	Once or twice a year	33.0
	>2 times a year	14.7
Residence time	Within ten minutes	40.4
	10 to 30 minutes	26.1
	31 to 60 minutes	25.7
	Over 1 hour	7.8

Table 2. Chi-square test of the recreation purpose and tourist attributes

Items	Number of recreational objectives (proportion /%)						Pearson chi-square value	significant
	Leisure viewing	Scientific investigation	Practice teaching	The sketch of photography	Others			
Gender	Male	62(53.4)	20(57.1)	24(57.1)	3(25.0)	7(53.8)	4.319 ^a	0.365
	Female	54(46.6)	15(42.9)	18(42.9)	9(75.0)	6(46.2)		
Age	<18-year-old	12(10.3)	0(0.0)	5(11.9)	2(16.7)	3(23.1)	56.753 ^a	0.000 ^{**}
	18 to 45 years old	38(32.8)	13(37.1)	35(83.3)	4(33.3)	3(23.1)		
	46~69 years old	41(35.3)	20(57.1)	2(4.8)	3(25.0)	5(38.5)		
Professional	>69-year-old	25(21.6)	2(5.7)	0(0.0)	3(25.0)	2(15.4)	129.376 ^a	0.000 ^{**}
	Students	14(12.1)	18(51.4)	36(85.7)	3(25.0)	2(15.4)		
	Civil servants	5(4.3)	0(0.0)	0(0.0)	2(16.7)	1(7.7)		
	Enterprise staff	59(50.9)	6(17.1)	0(0.0)	1(8.3)	2(15.4)		
	Retirees	15(12.9)	5(14.3)	0(0.0)	1(8.3)	1(7.7)		
	Public institution	15(12.9)	5(14.3)	6(14.3)	1(8.3)	3(23.1)		
	Freelancer	5(4.3)	0(0.0)	0(0.0)	3(25.0)	3(23.1)		
	Others	3(2.6)	1(2.9)	0(0.0)	1(8.3)	1(7.7)		
	Illiterate	2(1.7)	0(0.0)	0(0.0)	0(0.0)	1(7.7)		
	Primary or secondary school	18(15.5)	0(0.0)	0(0.0)	3(25.0)	1(7.7)		
The degree of education	High school	45(38.8)	0(0.0)	12(28.6)	5(41.7)	3(23.1)	672.944 ^a	0.000 ^{**}
	Junior college or bachelor	49(42.2)	9(25.7)	22(52.4)	3(25.0)	5(38.5)		
	Master and doctor	2(1.7)	26(74.3)	8(19.0)	1(8.3)	3(23.1)		
Monthly income	<3000 yuan	4(3.4)	13(37.1)	28(66.7)	3(25.0)	0(0.0)	99.869 ^a	0.000 ^{**}
	3000~5000 yuan	49(42.2)	5(14.3)	10(23.8)	3(25.0)	4(30.8)		
	5000~10000 yuan	52(44.8)	7(20.0)	2(4.8)	4(33.3)	7(53.8)		
	>10000 yuan	11(9.5)	10(28.6)	2(4.8)	2(16.7)	2(15.4)		

Note: ^{**}P < 0.01, bilateral test.

Constructing a recreation satisfaction evaluation system based on factor analysis

Based on the second part of the questionnaire above, firstly, descriptive statistical analysis (5-point scale assignment system) was performed for the importance and satisfaction evaluation data of the environmental variables to obtain their average value and variable coefficient (Table 3), and then to test the cognitive consistency of different tourist satisfaction through the use of variation coefficients. Furthermore, the principal component method of factor analysis was applied to analyse the satisfaction evaluation data, and four principal components with eigenvalue above 1 were extracted, with the cumulative variance contribution rate of

62.115%. Using the variance orthogonal rotation method, the environmental variables with factor load value above 0.5 were retained, and four common factors (represented by F₁, F₂, F₃, and F₄, respectively) were extracted and named (Table 3).

For the contribution rate of the common factor in the cumulative total variance, weighted summation and normalization were made to achieve its weight value. At last, the factor score coefficient matrix was calculated using SPSS23.0 and a factor score function was constructed:

$$F_1 = -0.045X_6 + 0.247X_4 + 0.279X_2 + 0.287X_5 + 0.268X_1 + 0.225X_3 + 0.006X_7 + 0.018X_8 - 0.039X_{15} - 0.005X_{14} + 0.003X_{16} - 0.006X_{11} + 0.024X_{10} - 0.005X_{13} + 0.046X_{12} - 0.014X_9 \quad (1)$$

Table 3. Factor analysis results and satisfaction evaluation system

Common factors and their environment variables	The variable load	Mean of satisfaction	Satisfaction ranking	coefficient of variation /%	The weight	Weight sorting	Mean of importance	Variance contribution rate /%	Factor internal reliability detection
Common factor F1: environmental attraction		4.229			0.291	1	3.970		
Water quality x_1	0.773	4.028	5	24.9			4.120	18.088	0.806
Space microclimate x_2	0.805	4.491	1	18.9			4.071		
Shape and scale of fish pond x_3	0.627	4.248	3	23.5			3.702		
Science popularization value x_4	0.715	4.482	2	18.9			3.968		
History x_5	0.831	3.895	9	25.7			3.990		
Common factor F2: management and maintenance		3.556			0.267	2	4.021		
Residents support the courtyard opening x_6	0.790	3.454	14	28.2			3.982	16.560	0.793
Plant maintenance and management x_7	0.748	3.220	16	36.2			4.164		
Maintenance and repair of fish pond x_8	0.773	3.628	11	32.9			3.965		
Environmental sanitation maintenance management x_9	0.819	3.922	8	22.3			3.971		
Common factor F3: recreation experience		3.830			0.248	3	3.870		
Interestingness x_{10}	0.731	4.031	4	23.9			4.011	15.417	0.780
Comfort x_{11}	0.768	4.009	6	23.7			3.766		
A sense of security x_{12}	0.755	3.624	12	27.3			4.000		
The degree of quiet x_{13}	0.837	3.954	7	23.6			3.703		
Common factor F4: supporting facilities		3.549			0.194	4	3.988		
Rest facilities x_{14}	0.812	3.509	13	32.5			4.105	12.050	0.702
Environmental sanitation facilities x_{15}	0.731	3.725	10	25.9			4.088		
Scenic spot introduction facilities x_{16}	0.810	3.413	15	33.2			3.772		

$$F_2 = 0.306x_6 + 0.063x_4 + 0.029x_2 + 0.025x_5 - 0.060x_1 - 0.089x_3 + 0.288x_7 + 0.294x_8 - 0.032x_{15} + 0.031x_{14} - 0.073x_{16} + 0.006x_{11} - 0.078x_{10} + 0.008x_{13} - 0.018x_{12} + 0.318x_9 \quad (2)$$

$$F_3 = 0.005x_6 + 0.017x_4 + 0.021x_2 - 0.017x_5 + 0.004x_1 + 0.044x_3 - 0.071x_7 - 0.016x_8 - 0.046x_{15} + 0.034x_{14} + 0.010x_{16} + 0.321x_{11} + 0.306x_{10} + 0.339x_{13} + 0.312x_{12} + 0.002x_9 \quad (3)$$

$$F_4 = -0.042x_6 - 0.021x_4 - 0.009x_2 - 0.049x_5 + 0.039x_1 - 0.017x_3 + 0.014x_7 - 0.009x_8 + 0.432x_{15} + 0.372x_{14} + 0.434x_{16} - 0.063x_{11} + 0.069x_{10} - 0.048x_{13} + 0.033x_{12} - 0.058x_9 \quad (4)$$

Based on the above four functions, the scores of F1-F4 were calculated. Combining the weights of each factor, a comprehensive satisfaction score is expressed as:

$$S_{co}=0.291F_1+0.267F_2+0.248F_3+0.194F_4 \quad (5)$$

Then, convert it into:

$$S_{co}= 0.062x_6 +0.089x_4 +0.092x_2 +0.076x_5 +0.071x_1 +0.049x_3 +0.064x_7+0.078 x_8 +0.053x_{15}+0.087 x_{14} +0.068x_{16}+0.067 x_{11} +0.075x_{10}+0.075 x_{13}+0.095 x_{12}+0.070 x_9 \quad (6)$$

This characterized the impact of various environmental variables on the overall satisfaction of fishpond landscape, and finally a recreation satisfaction evaluation system of fishpond landscape was constructed (Table 3). The internal consistency test (Cronbach α value) of all factors was greater than 0.7, indicating a good validity for these factors (the alpha value of the F_1 is greater than 0.8, with high credibility).

Importance-satisfaction comparative study

From the perspective of tourists, IPA analysis was carried out for public factors and environmental variables, the IPA matrix of factor

and variable were constructed respectively, with the total average of the two as the IPA coordinate origin (3.96, 3.79). The four quadrants of the coordinates were also defined: the first quadrant (high importance, high satisfaction) was the "Dominance zone", and the tourists attached great importance to and felt satisfied about the recreation conditions; the second quadrant (low importance, high satisfaction) was the "steady development zone", and the tourists didn't attach importance to but were satisfied about the recreation conditions; the third quadrant (low importance, low satisfaction) was "low priority zone", and the tourists didn't attach importance to and also weren't satisfied about the recreation conditions; the IV quadrant (high importance, low satisfaction) was "the key zone for improvement", the tourists attached importance to but weren't satisfied about the recreation conditions. Finally, the IPA maps of the factor (Figure 2) and variables (Figure 3) were constructed.

Figure 2. Importance-satisfaction chart of factors

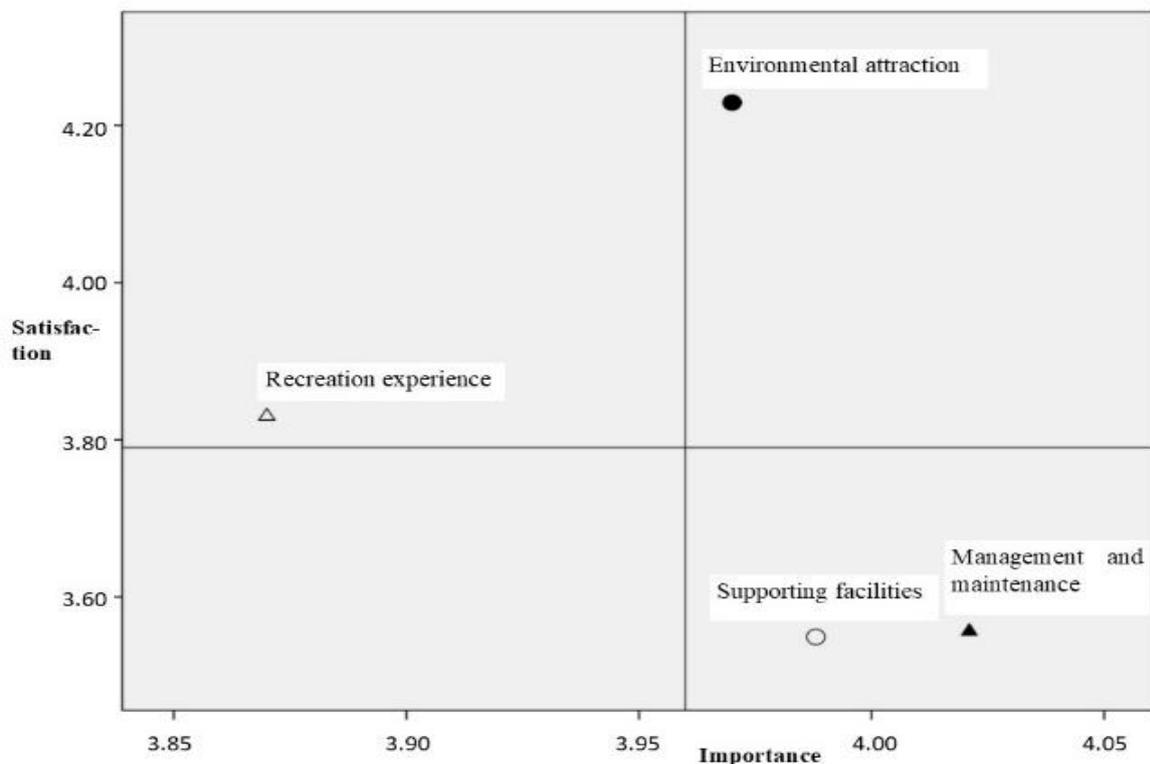
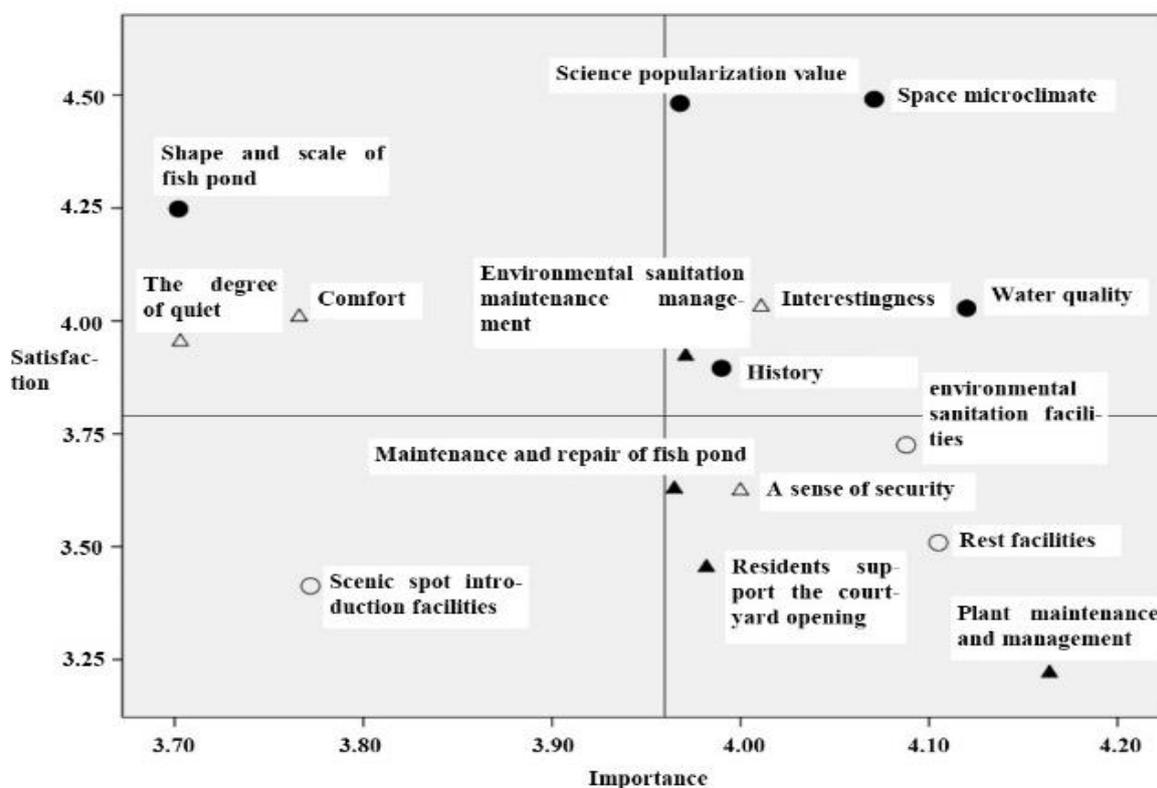


Figure 3. Importance-satisfaction chart of environmental variable



ANALYSIS OF RESEARCH RESULTS

Analysis of the tourist attribute and recreation needs

Respondent attribute analysis

According to Table 1, the gender ratio of respondents was basically balanced; young and middle-aged were dominated; the education level of tourists was higher, with the proportion of college and above about 58.7%; the employees in enterprises, students and institutions accounted for a relatively large proportion; the monthly income was mainly 3,000-10,000 yuan, which is basically consistent with the per capita income level of Chinese residents (as of 2018, the per capita disposable income of Chinese people was about 6,000 yuan).

Respondents' recreational needs and characteristics analysis

It can also be seen from Table 1 that the recreational purpose of tourists is mainly leisure and enjoyment, followed by teaching internships and scientific research, which indicates that

visitors have the needs to engage in scientific research and teaching functions. 5.5% of the tourists chose to photograph and

sketch, and also, they preferred to take pictures or sketches in places with wide views such as Nanhu, streets and squares. The frequency of tourists' recreation was "1-2 times a year" and "1 time for 2-3 years". The stay time of tourists in the fishpond landscape was mainly within 30 minutes (of which 40.4% respondents stayed for less than 10 min), indicating that most of the respondents preferred short-time visit. From the results of cross-analysis, it can be seen that this is related to the limited space and the low richness of the fishpond landscape.

Table 2 shows that gender has little effect on the purpose of recreation; there are significant differences in the courtyard fishpond recreation purpose among the tourists of different ages, occupations, education levels and monthly income, indicating that these four tourist attributes have a great effect on the purpose of recreation. The survey also found that most of the respondents who chose to study for research purposes were masters or doctors, while those

who chose teaching internships were mainly students (including college students and high school art students).

Tourist satisfaction analysis of fishpond landscape in Hongcun courtyard

Analysis for satisfaction degree of common factors and their environmental variables

From Table 3, the environmental factors with higher average satisfaction were “environmental attraction” and “recreation experience”, while the scores of “management and maintenance” and “supporting facilities” were relatively low, indicating that the tourists had a positive attitude towards the first two environmental factors, while the quality of the latter still needs to be improved. Among the environmental variables, there were 6 (the total full mark is 5) with the average satisfaction value exceeding 4 points, 4 from the “environmental attraction” and 2 from “recreation experience” of common factors respectively, indicating that the tourists were highly satisfied about the environmental characteristics of the fishpond landscape, and also gained a good recreation experience. This is related to the design concept of “compliance with the terrain, unity of nature and man”. Also, in terms of the satisfaction, the spatial microclimate, the science value, the fishpond shape and scale were the top three environmental variables, and the variable coefficient of the three was small, indicating that the tourists have a good cognitive consistency with their high satisfaction. This fully demonstrates that: 1) Fishponds have a significant effect on regulating the microclimate of the courtyard; 2) The scientific research value of the Hongcun water system has been widely recognized by the academic community; 3) Hongcun courtyard fishponds have various plane shapes, different scales and rich visual perception.

The environmental variables with an average value below 3.5 included: residents' support for the openness of the courtyard, plant maintenance management, and facilities for attraction introduction, and the coefficient of variation of the three was also large (the top 5 in size), indicating that the tourists had a generally low satisfaction and cognitive consistency in these three aspects. This is mainly because: 1) Most of the courtyards are occupied by residents, with the limitation of opening to the outside world, which brings extra resistance to

tourists in the tourist areas; 2) The residents in the courtyard have insufficient plant maintenance awareness and professional knowledge, resulting in low levels of plant conservation and planting, and very low greening rate around some courtyard fish ponds; 3) The local government or relevant departments haven't made enough investment construction and management of private courtyards, resulting in many problems in most recreation facilities of courtyard.

Analysis for the influencing factors of comprehensive satisfaction

The weight size of the environmental factor can reflect the influence degree of the factor on the overall satisfaction. Table 3 shows that the factor weight of the “environmental attraction” ranked first, indicating that this factor contributes the most to the comprehensive satisfaction of the fishpond landscape, while the “supporting facility” factor had the lowest weight value. However, there was no big difference between the weight values of these four factors, so the impact of these factors on the overall satisfaction of the fishpond landscape cannot be ignored. From formula 6, “safety”, “resting facilities”, “science value”, “space microclimate”, “maintenance and repair of fish ponds”, “historical transmission”, “fun” and “quietness” were the main environmental variables affecting the overall satisfaction of the fishpond landscape.

Importance-satisfaction comparative analysis

Based on the IPA matrix of environmental factors (Figure 2), the macro-analysis was performed: the “environmental attractant” factor was located in the I quadrant, indicating that tourists have high evaluation of their importance and satisfaction, and it should continuously maintain a good status and keep improving. The “recreation experience” factor was located in the II quadrant, so the environmental quality should be improved steadily without need of excessive effort. In the IV quadrant, there were two factors: “supporting facilities” and “management and maintenance”, indicating that they are of high importance in the minds of tourists, but with a low satisfaction, so it is necessary to focus on these two and increase investment for timely optimization. Further analysis was conducted for the environmental

variable IPA diagram:

(1) The environmental variables included in the I quadrant "dominance zone" include: water mass, spatial microclimate, fun, science value, historical transmission, and environmental maintenance management. It shows that these variables have basically reached the expectations of the visitors and should maintain a good state. Maintaining the normal operation of the water system was the key to maintaining the "water mass" and "spatial microclimate" status. "Environmental Maintenance Management" has gained both the importance and satisfaction of tourists, indicating that the focus on environmental protection has become the consensus of the public. "Fun" and "Historical transmission" reflect the unique appeal of the Hongcun fishpond landscape. Through the cross-tab analysis of the demographic characteristics of tourists and the satisfaction and importance of "science value", we found the characteristics of tourists in this area: in terms of the occupation, the students and institution staffs were dominated, with a generally high academic qualification.

(2) The environmental variables in the II quadrant "steady development zone" include: fishpond shape and scale, comfort, and quietness. This indicates that these variables are beyond the psychological expectations of tourists; tourists paid less attention to them, but their quality of recreation was high, which was the tourist's unexpected gain. Therefore, proper attention should be paid to these three variables without need of excessive investment.

(3) The environmental variables included in the III quadrant "low priority zone" were: facilities for attraction introduction. It shows that tourists weren't not very concerned about it and their satisfaction was low. Due to the large number of private courtyards in Hongcun, the government or tourism related departments cannot directly make integrated management, resulting in many problems in the facilities of attraction introduction. From the long-term perspective of the Hongcun tourism environment, it is inevitable to improve the configuration and management of the courtyard attraction board. However, considering the limitations of the existing environment, it may be stranded first, while priority is given to the development of elements in urgent need of improvement.

(4) The IV quadrant "key zone for

improvement" includes: maintenance and repair of fish ponds, residents' support for openness of courtyard, safety, health facility, resting facilities, and maintenance management of plants. That is, these six factors need to be improved as soon as possible. "Safety" was in the IV quadrant, indicating that environmental safety is always the focus of visitors and should be continuously improved. "Residents' support for the opening of the courtyard" was also in the IV quadrant, which is a direct reflection of the conflict between the interests of tourists and local residents. Visitors want to more easily navigate the private courtyard, while the residents are unwilling to open to tourists without compensation, which will inevitably affect the recreation experience of tourists. Therefore, it's necessary to find a solution to balance the interests of both.

SUGGESTIONS ON THE OPTIMIZATION OF COURTYARD FISHPOND LANDSCAPE

Digging traditional heritage culture and strengthening the development of Anhui residential water system

The normal operation of the water system is the guarantee for the water quality of the courtyard fishpond. The old fishpond with a high historical and cultural value and artistic value remains to be discovered. It's recommended that the local government should formulate relevant protection regulations for water systems and old fishponds, regularly let professionals repair damaged fishponds and water systems, and guide residents on how to protect existing fishponds and prevent the random transformation of fishponds. In addition, it's necessary to increase the publicity of the Hongcun water system culture and enhance the humanistic charm of the courtyard fishpond landscape.

Collaborating with private courtyard tourism to improve tourist satisfaction

The low openness of private courtyards to the outside world and the common phenomenon of toll visits have increased the probability of the fishpond landscape tour being "blocked" (reducing the tourist's satisfaction). It's recommended that local governments and residents should negotiate in a unified manner to formulate reasonable opening hours and

opening conditions for the courtyard to reduce the threshold for tourists. Meanwhile, the residents can increase their income in the form of "happy farmhouse" or courtyard "shop" to achieve a win-win situation for tourists and villagers.

Supporting courtyard landscape facilities to strengthen daily security management

The courtyard landscape is a new attraction for tourists, so the facilities in the courtyard need to be improved urgently. It is recommended to fully communicate with the homeowner and improve the "sanitation facilities", "rest facilities" and vegetation conservation issues in the courtyard fishpond landscape as soon as possible (for insufficient number of facilities and unreasonable location of the facilities). Besides, relevant departments and local peoples cooperate to send professionals to conduct regular inspections of the site, and strengthen the monitoring of the less well-known and remote fishpond landscape.

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