

## **An Analysis on the Sense of Responsibility and Behavior Features of Tourists towards the World Cultural Heritage**

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**Abstract:** Taking Qingcheng Mountain-Dujiangyan irrigation as the research object, this research discussed the sense of responsibility and behavior features of tourists in the world heritage sites, as well as the relationship between tourists' sense of responsibility and behavior. Based on the questionnaire survey, this paper applied the exploratory factor analysis and the correlation analysis of SPSS, the results showed that, tourists is generally weak and their environmental behavior needs to be strengthened; the attitude of tourists' responsibility is associated with their environmental behavior, and the positive attitude of heritage responsibility has a significant influence on the active participation behavior and subsequent protection behavior. A series of Suggestions were discussed in last part. At first, the sense of responsibility towards the heritage sites should be strengthened independently and disruptive behavior should be controlled. Furthermore, heritage-related tourism organizations should actively guide and improve the level of service management; apart from that, the long-term strategy about heritage site tourist awareness education program should be put on the agenda. Moreover, the government should strengthen the legislation. Eventually, the atmosphere about protecting the world cultural heritage in whole society should be cultivated.

### **1. Introduction**

With the heritage tourism development, the problem of protecting world heritage are getting more and more attention, and it has played an increasingly role in clarify those issues related to the heritage protection work responsibilities, mobilization and participation. It should not be ignored that a great large member of hazard factors caused by natural or human intervention are threatening the World Heritage, especially the entering of tourists and uncivilized behavior of them. Meanwhile, the tourists' senses of responsibility to the world heritage and the weak protection awareness have a negative impact on the world heritage property. In academic research world, foreign scholars have been focusing the study of the protection and responsibility awareness of the heritage, while the domestic scholars also have begun to pay much attention to the importance and necessity of the responsibility of heritage in recent years. However, most of the researches were theoretical, did not take into account specific responsibility ideology, cognitive obstacles, and behavior during the tour in the tourist Heritage Sites. Qingcheng Mountain and Dujiangyan irrigation is a well-known world cultural heritage according to large number of visitors and great development, which has a certain representativeness of research. This study took it as an example, and contributed great to exploring the relationship between personal responsibility sense and behavior features in the heritage sites.

### **2. Literature Background**

Responsible tourism in the heritage site refers to the corresponding legal, economic, moral and charitable responsibilities of individuals or organizations in the process of heritage value recognition, interpretation and reproduction <sup>[1]</sup>. In the narrow sense, it can be understood as individuals or organizations taking heritage resources as tourist attractions, to the heritage sites to enjoy the heritage landscapes, and to undertake the corresponding legal and behavioral responsibilities in the reproduction of heritage value <sup>[2]</sup>. From the 1990s, foreign scholars began to do literature reviews about the attitudes and responsibilities of tourists on the environment, and carried out relevant empirical studies <sup>[3]</sup>, the researches content mainly include three aspects <sup>[4]</sup>:

(1) Research on the influencing factors of environmental responsibility attitude; (2) Research on the relationship between environmental attitudes and other behaviors (tendencies); (3) Research on the connotation structures and measurement methods of environmental attitudes. Although the above three aspects have already mentioned the tourists' attitudes and behavior of environmental responsibility, they do not take world heritage site as a tourist destination to study and discuss. While ICOMOS's Barra Charter (1999) combines heritage responsibility with heritage management, which considers that "the preservation of the heritage is an integral part of the management of cultural heritage and an ongoing responsibility"<sup>[5]</sup>. The domestic scholars also pay attention to the tourists' environmental attitudes and behavior research, specifically, adopting the quantitative description and subjective construction evaluation scale, focus on the different behavioral characteristics of tourists' environmental responsibility consciousness<sup>[6]</sup>, the importance of world heritage protection<sup>[7]</sup> and the relationship between tourists' sense of responsibility and economic income, age, occupation and living environment<sup>[8]</sup>.

To sum up, existing researches have focused on the environmental awareness and behavior of tourists from the perspective of macro and middle view also put forward the importance of heritage protection. But more from the theory rather than taking full account of tourists who are the important stakeholders, their specific responsibility ideology, cognitive impairment and behavioral performance in the tourism heritage sites.

### 3. Methodology

**Research setting.** Qingcheng Mountain and Dujiangyan irrigation is a famous tourist attraction in China, as well as one of the first batches of national scenic spots. It was entitled as the world cultural heritage in 2000, and was approved as the national AAAAA level scenic spot in 2007. It should be noted that, more than 22 million visitors from both domestic and abroad in 2016 were attracted to Dujiangyan City. Hence, Qingcheng Mountain and Dujiangyan irrigation is a proper representative of research for a stable guest source and a high rate of access.

**Research instrument.** In order to understand the present situation to the tourists' responsible tourism awareness and responsible tourism behavior who tour world cultural heritage sites, the research team interviewed 23 tourists, preliminary set up tourists responsibility attitude scale (15 items) and environmental behavior scale (15 items). A 5-point Likert scale (respectively, from 1= "strong disagree" to 5= "strongly agree", and from 1= "absolutely do" to 5= "never do") was applied to record the tourists' responses to the items.

**Data collection and data analysis.** The survey was conducted in mountain Qingcheng and Dujiangyan Irrigation from August to December in 2018. Eventually, a total of 358 valid questionnaires were returned. SPSS 20.0 was used for data analysis. We first tested internal reliability of the two scales ( $\alpha=0.852$  and  $0.907$ ). Then, we ran exploratory factor analysis (EFA) to identify the factor structure with the sample. Finally, mean comparison was used to found the difference between those factors.

### 4. Study Results

**Senses of responsibility, behavioral characteristics of visitors.** As noted, the data were collected based on senses of responsibility toward cultural heritage and behavioral characteristics concerning about environment. The data were suitable for performing EFA, indicated by Kaiser's measure of sampling adequacy and Bartlett's test of sphericity ( $KMO = 0.805$  and  $0.842$ , Approx. Chi-Square =  $2453.548$  and  $2568.435$ ,  $P < .00$ ). Applying the principal component analysis with Varimax rotation, a four-factor solution with 15 items emerged, explaining 69.591% and 82.085% of total variance respectively.

In the final factor solution, firstly, the factor loadings of responsibility sense of the 15 items ranged from 0.528 to 0.821, the other factor loadings of the 15 items ranged from 0.564 to 0.855. Furthermore, the Cronbach's alpha values of the four factors ranged from 0.756 to 0.879 and from 0.880 to 0.923 indicating sufficient internal consistency of the measurement. Based on the

relationship and specific meaning of those factors, we labeled the four factors as emotions about world heritage (4 items)、responsibility to world heritage (4 items), tourists' attitude towards world heritage (5 items) and environmental attitude(2 items). Similarly, concerning the visitors' behavioral characteristics, the four factors were named interactive participation (4 items) active participation (3 items), cultural environment interference (4 items) and follow-up protection (4 items).

According to the mean analysis, on the one hand, the top 4 items with a high mean value of tourists' sense of responsibility include "willing to participate in the commentary", "interpretation of cultural heritage education is very important", "the natural and cultural resources of the heritage sites are easily damaged", and "there should be open and number limits in world cultural heritage sites" (the average means were 4.49, 4.31, 4.22 and 4.19),but the average of other indicators are low, two aspects such as "see the cultural heritage destroyed very angry" (the average mean was 2.91) and "rationally persuade others not to destroy the environment and heritage" (the average mean was 2.23). From the analysis results, all the mean values are not high; the sense of responsibility for heritage tourism is generally weak. On the other hand, the "environmental behavior" of tourists is called ecological behavior<sup>[9]</sup> or environmental significant behavior<sup>[10]</sup> or directly referred to as environmental behavior. They all emphasize that individuals are actively involved and put into action to solve or prevent the environmental problems of the destination. The top 4 items with high mean value of tourists' environmental behavior are "read the explanation cards in detail before traveling", "read precautions before traveling", "no littering in the area, making indecent moves on cultural relics or task carving, etc." and "Will be cooperate with those precautions better after traveling in the heritage sites." (the average means were 4.56、4.40、4.32 and 4.21).While four of the lower behavioral evaluations are "do not climb over the fence to touch the relics or graffiti when traveling (2.05)", "do not lie or walk on the levee or lawn (2.17)", "do not take pictures of cultural relics or landscapes that are forbidden to take photographs (2.44)", "prosecute destructive behaviors for the natural environment and cultural environment (2.03)".

Table 1 Visitors' responsible attitude and behavior related analysis

Selected factors	Heritage emotion		Heritage responsibility		Heritage responsibility attitude		Environmental responsibility	
	correlation coefficient	Sig.	correlation coefficient	Sig.	correlation coefficient	Sig.	correlation coefficient	Sig.
Participation in interactive behavior	0.112	0.0021*	0.186	0.000***	0.300	0.000***	0.088	0.046*
Active participation behavior	0.123	0.006**	-0.025	0.007*	0.112	0.022*	0.144	0.005*
Cultural environment interference behavior	0.436	0.000***	-0.037	0.446	0.031	0.550	-.011	0.019*
Subsequent protection behavior	-0.011	0.721	0.123	0.006**	0.025	0.615	0.044	0.272

Note: "\*", "\*\*" and "\*\*\*" respectively represent Sig.0.05, Sig.<0.01And Sig.<0.001.

#### **An analysis of the relationship between the attitude and behavior of tourists' responsibility.**

The 4 types of responsibility attitude factors obtained from the factor analysis were compared with the 4 types of behavior factors by Pearson correlation test, it was found that there was a significant positive correlation between the factors of the attitude of responsibility and participation in interactive behavior (see Table 1 for details), which shows that the stronger the sense of responsibility of tourists, the higher the tourists' participation and the protection of the heritage. These three awareness factors of responsibility: the sense of world cultural heritage, the responsibility of world cultural heritage and the attitude of tourists responsible for world cultural heritage are positively and significantly correlated with actively participate in behavior and participate in interactive behavior, it shows that the positive attitude of heritage responsibility has a

significant influence on the active participation of tourists and subsequent protection behavior. However, there is a negative correlation between those three awareness factors of responsibility and cultural environment interference, which indicates that the stronger the cultural environment interferes, the greater the damage to the cultural atmosphere and environmental impact in the heritage sites.

## 5. Conclusions and Discussion

Firstly, the sense of responsibility of tourists' heritage is generally weak and the environmental behavior needs to be strengthened. "The sense of world cultural heritage" and "the responsibility of world cultural heritage" in the sense of responsibility, "participate in behavior" and "subsequent protection behavior" in the act of responsibility are overall better; environmental responsibility in the sense of responsibility, active participation and environmental interference in the act of responsibility are relatively poor. As a whole, the awareness of the responsibility of the heritage sites of tourists is generally weak, and environmental behavior needs to be improved. Besides, from the investigation, some tourists are found to have strong sense of responsibility, but the environmental behaviors are weak, showing a phenomenon of inconsistency between words and actions.

Secondly, the attitude of tourist responsibility and environmental behavior are interrelated. These three awareness factors of responsibility: the sense of world cultural heritage, the responsibility of world cultural heritage and the attitude of tourists responsible for world cultural heritage are positively and significantly correlated with actively participate in behavior and participate in interactive behavior, it shows that the positive attitude of heritage responsibility has a significant influence on the active participation of tourists and subsequent protection behavior. However, there is a negative correlation between those three awareness factors of responsibility and cultural environment interference, which indicates that the stronger the cultural environment interferes, the greater the damage to the cultural atmosphere and environmental impact in the heritage sites.

Besides, in order to achieve the sustainable development of Qingcheng Mountain and Dujiangyan irrigation world cultural heritage, it is suggested that tourists should strengthen the sense of responsibility of the heritage sites and develop their own rational and mature tourism behavior in the heritage site and constraint themselves disruptive behavior in heritage site. Heritage-related tourism organizations include travel agencies, hotels, and tourist souvenir manufacturers, etc., should guide tourists through their own management and business practices. Qingcheng Mountain and Dujiangyan irrigation scenic area should strengthen the cultural interpretation of scenic spots to improve the level of scenic spot management and heritage protection. The government should strengthen the legislation and advocate the whole society to build an atmosphere for protecting the world's cultural heritage.

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