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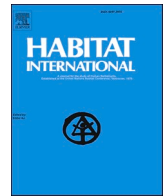
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# Contradictory or aligned? The nexus between authenticity in heritage conservation and heritage tourism, and its impact on satisfaction

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## ABSTRACT

The discrepancy between authenticity regarding heritage conservation and perceived authenticity in heritage tourism has been extensively discussed and seen as an obstacle for sustainable heritage tourism and management. In this article, we reviewed the notion of authenticity respectively in heritage conservation and in heritage tourism, interviewed 5 experts and 363 tourists regarding three cultural heritages in Nanjing, China. Findings indicate that once visitors are fully aware of the essential nature, the cultural significance of the cultural heritage, and the connotation of authenticity in heritage conservation, they can assess the cultural values and the authenticity of a given heritage property intellectually from the perspective of conservation. Tourists' assessment also significantly affects their perceived authenticity and satisfaction. We argue that, heritage conservation can be compatible with heritage consumption, by publicizing sufficient heritage information and encouraging the exchange of heritage knowledge between conservation practitioners and the public.

## 1. Introduction

Sustainable cultural heritage tourism can be perceived as a compromise between the conservation goal, the financial benefits and the public access (e.g. Croft, 1994; Garrod & Fyall, 2000). The financial benefits, supporting the local economy and financing heritage conservation, cannot be facilitated without satisfying tourists (Asmelash & Kumar, 2019). In heritage tourism, one of the key factors determining tourist satisfaction is the perception of authenticity (e.g. Cohen, 1988; Taylor, 2001; Waitt, 2000; Yi, Fu, Yu, & Jiang, 2018). Among the existing literatures, many have mentioned the collision between authenticity in the sense of cultural heritage conservation and the perceived authenticity in heritage tourism (e.g. Cohen, 1988; MacCannell, 1973; Xie, 2003). The main argument was the “staged authenticity” (MacCannell, 1973) perceived in heritage tourism, that contradicts with the “essentialist authenticity” (MacCannell, 1992), can satisfy tourists in their visits. As Martínez (2016) argued, some “authentic experience” provided to the tourists by the policy makers sacrifices the continuity of the life of the local communities, composed of the local social, economic and cultural activities. This kind of “authentic experience” may be perceived as authentic by tourists, yet, hinders the conservation of cultural heritages.

Given the evolution of both notions over the last few decades, the nexus between “heritage authenticity” and “perceived authenticity” is still worth discussing today. With the involvement of more anthropological and sociological insights, in recent years, the cultural heritage has already moved beyond the physical aspect of heritage and has been proposed as a cultural, social and intellectual structure (Nezhad, Eshrati, & Eshrati, 2015), defined by people in their own context and subject to evolution or variation in space, time and cultures (Boccardi, 2019). The heritage authenticity is also defined with an enlarged scope, giving consideration to a wide variety of tangible and intangible attributes contributing to the value, rather than the objectively verifiable “facts”, of a heritage property. On the other hand, perceived authenticity in tourism was comprehensively discussed by Wang (1999), who drew a sharp distinction between the object-based and existential authenticity. This postmodern view of perceived authenticity stresses that tourists do not only judge authenticity from an intellectual distance but also through emotional experiences (Kolar & Zabkar, 2010). This understanding of authenticity is widely supported and used in the field of tourism studies today (Nguyen & Cheung, 2016). It seems that both connotations of heritage authenticity and tourism authenticity are showing more respect to cultural diversity, personal experience, and valuation.

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Although these two types of authenticity overlap in connotation to certain extent, heritage authenticity is more of an objective nature. It is conceptualized especially as a rigorous criterion justifying the “Outstanding Universal Value” (OUV) of cultural heritages, and one of the guidelines for the evaluation and examination of world cultural heritage nominations. It is a criterion employed by the World Heritage Committee, the International Council on Monuments and Sites (ICOMOS), and the State Parties. Hence, it is an objective quality that should be commonly agreed on by a small group of professionals. While perceived authenticity in tourism can be extremely personal and dynamic, evaluated by every single person visiting a heritage property.

It may be true that “staged authenticity” can positively influence perceived authenticity in heritage tourism, however, given the brief interpretation of two types of authenticity, along with the overlaps and distinctions in between, we are curious to know if heritage authenticity from the perspective of conservation can also influence perceived authenticity. If the connotation of heritage authenticity in conservation is fully comprehended by the tourists, will their perception of authenticity regarding the travel experience be affected by their assessment on the heritage authenticity? Will the tourist satisfaction be determined by such assessment consequentially? In this research, we aim to reveal the potential causal relationship between tourists’ understanding of the heritage authenticity in conservation, their perceived authenticity of the travel experience, and their overall satisfaction on the heritage site. To answer these research questions, we firstly reviewed the existing literatures about authenticity in the field of heritage conservation, and the field of heritage tourism, secondly conducted an open-ended interview with five researchers in heritage conservation, and a structured interview with 363 tourists regarding three cultural heritages in Nanjing, China, and thirdly discussed the findings grounding on the statistical analysis of the interview data.

## 2. Literature review

### 2.1. The concept of heritage authenticity from the perspective of conservation

Based on philosophical and critical reflections, authenticity of cultural heritages has emerged as one of the paramount issues in discussions from the view of conservation and restoration in the multicultural context over the last few decades (Jokilehto, 2006). The “Charter of Venice” (ICOMOS, 1964) was the first international document that officially mentioned the concept of authenticity, stressing the idea of protecting cultural heritages as much as art works and historical proof. In the 1977 Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO, 1977), at the first time, the notion of authenticity emerged as one of the criteria assessing “the artistic and historical values of the cultural heritage in regard of design, materials, workmanship and setting”, evaluating if the heritage can be included in the World Heritage List. In the 1994 Operational Guidelines (UNESCO, 1994), authenticity, as a criterion justifying the OUV of the cultural property, has started to be employed in indications to states parties concerning World Heritage nominations, and in the guidelines for the World Heritage Committee and ICOMOS to evaluate and examine the nominated properties. Based on the discussion on the Bergen meeting, later in the same year, “The Nara Document on Authenticity” (ICOMOS, 1994) was promulgated, conceived in the spirit of the “Charter of Venice” (ICOMOS, 1964), emphasizing the vitality of cultural and heritage diversity in conservation practice. In the section of “Values and Authenticity”, “authenticity” was clearly defined as “the primary qualifying factor concerning values of cultural properties, based on the

knowledge and the understanding of multidisciplinary and credible information in relation to original and succeeding characteristics of the cultural property, as well as their significance”. Aspects of the sources of information may include “form and design”, “materials and substance”, “use and function”, “traditions and techniques”, “location and setting”, “spirit and feeling”, and “other internal and external factors”. Means of intangible expression of the cultural heritage, for the first time, were explicitly involved in the reformation of the former examination of authenticity (Petzet, 2009).

The newly proposed aspects of the sources testing the authenticity of the cultural heritage was not updated in the operational guidelines until the year of 2005. In the 2005 Operational Guidelines, based on “The Nara Document”, above-mentioned seven sources of information, together with “language, and other forms of intangible heritage”, composed a cluster of eight attributes expressing the cultural value of the heritage (UNESCO, 2005). In this sense, heritage authenticity referred to the capability of the heritage to express its OUV through a cluster of attributes. The concept of authenticity also started to manifest its compelling role in cultural heritage protection and management. As stated in the 2005 operational guidelines, the OUV and the conditions of authenticity of the properties should be maintained or enhanced from the time of inscription onwards (UNESCO, 2005). The definition of authenticity, along with the variety of attributes tangibly and intangibly expressing the cultural value, has been agreed on and employed by the World Heritage Committee as one of the key criteria with respect to the world heritage nomination, inclusion, protection and management, ever since 2005.

Given the long-term evolving conception and employment of heritage authenticity in the western context, the use of a broader test of authenticity and the inclusion of intangible attributes of authenticity for World Heritage List Nominations have been gradually but rather slowly accepted in the non-western contexts (Lawless & Silva, 2016). Although the World Heritage Committee has pervasively propagated the definition of authenticity and the core articles of the Nara Document to every state party (e.g. Australia ICOMOS, 2013; ICOMOS China, 2015; Stovel, 2008; UNESCO, ICCROM, ICOMOS, & SACH, 2007), considerable confusion among authenticity, state of conservation and values is still visible (Boccardi, 2019). Many nominations submitted by the States Parties had poorly justified the conditions of authenticity (UNESCO, 2017). The laypeople who should be put first (Holtorf & Kono, 2015) in operationalizing the notion of heritage authenticity are rarely familiar with the connotation of such notion.

### 2.2. The perceived authenticity and its significance in heritage tourism management

Unlike authenticity in heritage conservation, authenticity in heritage tourism is more subject to personal valuation, and closely related to every visitor’s personal memory, experience, and cultural background. Visitors’ valuation of authenticity has been extensively discussed after MacCannell (1973) introduced this concept, attempting to understand travellers’ experiences at heritage attractions (Lu, Chi, & Liu, 2015). This concept was successively employed and studied by subsequent researchers, pointing towards a widely acknowledged definition that authenticity “should be seen as the quality of being authentic, real or genuine” (Chhabra, 2005; Frisvoll, 2013). Perceived authenticity is formed through a complex perceptual process interacting with local buildings, residents, souvenirs, delicacies, activities, ceremonies, etc., during which consumers decipher a set of implications related to the certain cultural property (Jones, 2010; Yi et al., 2018).

In tourism, perceived authenticity can be conceived as either object-

related or activity-related phenomena (Park, Choi, & Lee, 2019; Reisinger & Steiner, 2006; Steiner & Reisinger, 2006). The object-related authenticity can be categorized as objective authenticity and constructive authenticity (Wang, 1999), respectively referring to “the authenticity of the origins or at least an immaculate imitation of historical artifacts” (Chhabra, 2012; Kolar & Zabkar, 2010), and the authenticity projected onto cultural properties by visitors or organizers regarding their expectations, tendencies, faiths, etc. Existential authenticity, whereas, denotes an underlying existential condition that is to be stimulated by travelling. This condition can be unconcerned with the authenticity of the cultural site itself. Tourists can generate their own meanings through communicating with the physical world (Ram, Björk, & Weidenfeld, 2016; Yi et al., 2018), and embrace a negotiable, contextual, and flexible judgment or valuation of the cultural heritage (Park et al., 2019). Despite all the delicate differentiations on the understanding of perceived authenticity in the existing literatures, in this article, we define the perceived authenticity as an amalgam of objective, constructive and existential authenticity.

Widely proved in many studies is that, in heritage tourism, perceived authenticity remarkably determines tourists' estimation of visited properties and visiting experiences, such as the perceived image (Lu et al., 2015; Ramkissoon & Uysal, 2011), perceived value (e.g. Akhoondnejad, 2016; Chen & Chen, 2010; Kim, Oh, Lee, & Lee, 2018), sense of place (Ramkissoon, 2015), satisfaction (e.g. Chhabra, Healy, & Sills, 2003; Hede, Garma, Josiassen, & Thyne, 2014; Hernández-Mogollón, Campón-Cerro, & Alves, 2013), and behavioural intention (Li, Shen, & Wen, 2016; Lin & Liu, 2018). Kim et al. (2018) argued that perceived authenticity also positively influences economic values of the cultural heritage. Hence, evident in above-mentioned studies is that perceived authenticity is crucial in cultural heritage planning and heritage tourism management.

### 2.3. The interrelationship between authenticity in heritage conservation and in heritage tourism

Given the significance of perceived authenticity in heritage tourism management, its relationship with UNESCO-defined authenticity in heritage conservation worth investigating. As briefly discussed in Introduction, these two notions diverge, but also share overlap in connotation. As emphasized in the operational guidelines, OUV is the very cultural information to be delivered through truthful and credible information sources, in order to manifest the heritage authenticity (Denyer, 2011). The attributes delivering OUV incorporate both tangible and intangible forms and expressions. Those intangible ones, including “tradition” and “spirit and feeling”, are ought to be perceived and valued subjectively. Hence, it is not possible to ignore the subjective perception in understanding authenticity of cultural heritage in conservation. In addition, the tangible and intangible attributes of the heritage are always inseparable either in heritage conservation or in tourism. Dushkina (1994) states that heritage authenticity should be diagnosed by inspecting all the cultural attributes and the components of the cultural heritage site simultaneously, not independently. Petzet (2009) argues that tangible and intangible values should be seen as “two sides of one coin”. He also adopts the notion of “genius loci”, the time-honoured phenomenon of “the spirit of place”, and the concepts of “aura”, “atmosphere” to demonstrate the inseparability of tangible and intangible dimensions when inspecting a cultural site. This co-existence and inseparability of the perception of both tangible and intangible attributes of the heritage can also be found in the construction of perceived authenticity in tourism, as stated in Section 2.2.

These arguments have demonstrated the interconnectivity between authenticity themed in heritage conservation and in heritage tourism. The former is assessed by inspecting all the informed tangible and intangible attributes of heritage property, while the latter is an integral subjective reflection of all the encountered attributes (Yi, Lin, Jin, & Luo, 2017). We hold no preconception regarding these two notions, nor any intention to judge whether one authenticity is more authoritative than the other. By exploring such nexus between the two notions, we are trying to test the possibility that the approved authentic quality of the heritage site in the sense of conservation can determine an authentic tourism experience, so as to reveal the potential link between conservation and heritage consumption.

### 3. Hypotheses

Prior to proposing specific hypotheses, we have conducted an open-ended interview with five researchers, professional in cultural heritage conservation, from two universities in Nanjing, China. The interview focused on their professional understanding of authenticity within the Chinese cultural context, their thoughts and criticism on the status quo of cultural heritage conservation in China and in Asia, with respect to the criteria of heritage authenticity formulated by UNESCO.

In the interview, all of them stressed the particularity of the Chinese cultural heritages and its influence on the operation and comprehension of authenticity within this context. With the time-honoured tradition of building with timber structure, preserving the Chinese heritages in their very original form and material is never easy, neither is the main goal of heritage conservation in China. The Chinese professionals care more about preserving the heritage to enhance its original meaning, spirit, and atmosphere through replacing the rotten timber structural components with the ones in traditional or modern materials to prolong the life-span and reinvigorate the cultural connotation of the heritage (Chen, 1990). For instance, the conservation project of Fang-cheng Ming-lou (the gatehouse) in the Xiaoling Tomb of the Ming Dynasty was actually finished by adding a steel structure, which imitates the original form and design of the burned roof, at the top of the gatehouse, to help restore the overall atmosphere of the Xiaoling Tomb in the early Ming dynasty (Guo & Xie, 2008). Hence, in general, the attributes used by UNESCO to examine the heritage authenticity are also applicable in China. The tangible attributes, however, may play a less dominant part in expressing OUV of the Chinese or non-Western cultural heritages. The intangible attributes should attract more attention from the experts, communities and tourists.

Unfortunately, as argued by three interviewed researchers, in China, due to the lack of publicity of the historical, cultural, artistic, scientific values of cultural heritages, the lack of delicate museumization of the cultural heritages, as well as the excessive secrecy over the documents concerning heritage conservation and restoration, the public do not have sufficient access to the knowledge regarding the values and evolving histories of heritages. The flaws in the heritage management in China have risen the difficulty for public to understand authenticity under the topic of conservation (Wang et al., 2015).

Based on the interview, we hypothesize that if laypeople have the chance to obtain sufficient knowledge regarding the concept of authenticity and the criteria assessing authenticity from a conservation perspective, they should be able to make the proper assessment on heritage authenticity. Thus, our first hypothesis is presented as follows.

**H1.** The experts and the tourists can reach a consensus on heritage authenticity once sufficient knowledge regarding authenticity from a

conservational perspective is obtained by the tourists.

As discussed in Section 2.3, all the cultural attributes of the cultural heritage site work simultaneously and inseparably on people's perception. In other words, the perception of either objective, constructive or existential authenticity is influenced by the communication of cultural value through all the forms of the tangible and intangible expressions of the heritages, i.e. the assessment on heritage authenticity. Hence, we propose the second hypothesis.

**H2.** The tourists' perception of objective, constructive and existential authenticity in heritage tourism is influenced by their assessment on the heritage authenticity based on the given conservation knowledge.

Concerning the relationship between the three sorts of perceived authenticity and satisfaction, earlier discussions on perceived authenticity and existing literatures are referred. Existential authenticity is a negotiable, contextual judgement of the heritage site through communicating with the tangible environment. Hence, it is activity-based as well as place-based. As proved by substantial previous findings, the effect of object-based authenticity on existential authenticity is statistically significant and positive (Meng & Choi, 2016; Park et al., 2019). As for the object-based authenticity, constructive authenticity is a kind of authentic cognition cultivated through people's experience with the way visited elements are articulated and expressed, which implies a mutual connection with objective authenticity. Therefore, we propose our third hypothesis.

**H3.** The objective authenticity and constructive authenticity have a mutual impact, while both the objective authenticity and constructive authenticity positively affects existential authenticity.

In addition, Given the widely proved causal relationship between perceived authenticity and satisfaction (Engeset & Elvekrok, 2015; Hede et al., 2014; Moscardo & Pearce, 1986), and Hypothesis 3, the fourth hypothesis is shown as follows.

**H4.** The objective, constructive and existential authenticity all have significant impacts on satisfaction.

Following these arguments and hypothesis 2,3, and 4, Fig. 1 illustrates the theoretical framework, stating the proposed causal relationships.

## 4. Methodology

### 4.1. The city of Nanjing

To testify the four hypotheses, we chose the city of Nanjing as our general case area firstly due to the concentration of cultural heritages in this city. With a history dating back 2500 years, having served as the capital for a few Chinese dynasties and governments, Nanjing has a prominent position in Chinese history and culture. Cultural heritages in Nanjing that were widely cited and portrayed in Chinese poems, prose, novels and films, have always been popular heritage attractions.

The second reason to choose Nanjing as the case area lies in the fundamental alignment between the local conservation regulation, the national conservation principles, and the UNESCO operational

guidelines. At the national level, "Principles for the Conservation of Heritage Sites in China" (ICOMOS China, 2015) was issued under the guidance of the State Administration of Cultural Heritage. The China Principles are regarded as the fundamental criteria for conservation professionals in this country. In the issued texts, the articles in UNESCO operational guidelines, including the ones regarding authenticity, are largely duplicated. At the municipal level, "Principles for the Conservation of Heritage Sites in Nanjing" (General Office of The Standing Committee of The People's Congress of Jiangsu Province, 1997) and "Principles for The Conservation of Important Modern Architecture and The Buffer Zone in Nanjing" were promulgated by General Office of the Standing Committee of the People's Congress of Jiangsu Province (General Office of The Standing Committee of The People's Congress of Jiangsu Province, 2006) as the general guidelines contraposing the heritage conservation practice in Nanjing, both arguing the vitality of evaluating, conserving and enhancing the historical, cultural, artistic and scientific values of the historical and modern cultural heritages.

The third reason is that Nanjing is one of the representative Chinese cities, that still lack proper publicity of the values embodied in heritages, as well as the information of conservation and restoration. Even though there are plenty of public reports briefly introducing the principles, decisions, and achievements of heritage conservation, very few details are disclosed or elaborated to the public. Considering the hypotheses, especially H1, taking Nanjing as the case can effectively testify if Chinese visitors can value heritage authenticity once sufficient knowledge of conservation is provided.

### 4.2. Three cultural heritages in Nanjing

There are 48 major cultural sites protected at the national level in the city of Nanjing, conforming to the "Principles for the Conservation of Heritage Sites in China". Among these 48 sites, the Xiaoling Tomb of the Ming Dynasty is the only one listed in the World Heritage List. In terms of authenticity, the conservation of all these 48 sites follows the UNESCO principles. A pilot survey was conducted among 53 tourists to select the most well-known national cultural heritages. Three cultural heritages, i.e. the City Wall of Nanjing, Nanjing Presidential Palace and the Xiaoling Tomb of the Ming Dynasty, were selected as the most well-known ones (Appendix A). The results mean that the cultural value and the cultural attributes of these three heritages are most known by the public. The three sites were thus chosen as the specific case areas in Nanjing to testify the hypotheses.

### 4.3. Data collection

To testify the four hypotheses, we decided to collect visitors' opinions through a structured interview, and process the collected data through statistical analysis. Acknowledging that notions of authenticity in heritage conservation and in heritage tourism are highly complex, as discussed in Literature review, we think the structured interview and statistical analysis can make the most efficient quantitative methods in this research for us to first collect large numbers of individual responses regarding the listed specific questions within a reasonable time frame, second reveal the potential correlations proposed in the hypotheses with better reliability in a statistical sense. Many previous studies on perceived authenticity have also employed similar methodology (e.g. Ram et al., 2016; Yi et al., 2018). Such quantitative methodology also leaves open the possibilities of being reused and reproduced in the future relevant studies.

We conducted a structured interview with 363 local tourists following the open-ended interview with five researchers from Nanjing. For the structured interview, a questionnaire (Appendix B) was designed to gather information from tourists. Prior to the survey, the detailed backgrounds of the three heritages, notions of authenticity, OUV, the criteria employed by UNESCO to assess authenticity, as well as the concepts of objective, constructive, existential authenticity were orally

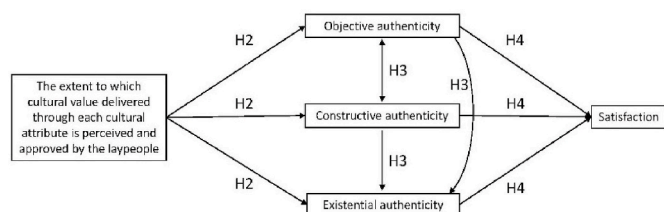


Fig. 1. Hypothesized path model.



elaborated with plain language to the interviewees. All interviewees declared that they had visited the three cultural heritages and they understood all the relevant terms and concepts mentioned in the questionnaire before they started filling it out. Apart from the questions collecting the demographic data, there were mainly three questions. The first question was to request the interviewees to indicate how credibly and truthfully the cultural value is expressed through the attributes of “form and design”, “materials and substance”, “use and function”, “traditions and techniques”, “location and setting”, “Language, and other forms of intangible heritage”, and “spirit and feeling” respectively, based on their knowledge and personal experience of visiting the cultural heritage. The attribute “other internal and external factors” was not included in this question, since the connotation of this attribute varied between different cultural heritages. The second question measured the interviewees’ perceived authenticity, i.e. objective, constructive and existential authenticity, through their visits to the cultural heritages. The third question asked the interviewees’ satisfaction with their visits to the cultural site. The three questions were asked respectively regarding the three selected cultural heritages. They were all set as Likert scale questions. Ratings were measured on a five-point scale. Questionnaires were presented in an electronic version, handed over and recollected from interviewees face-to-face, from 25th September to December 15, 2019, in Nanjing. 401 questionnaires were distributed and 363 valid ones were collected, providing a response rate of 90.5%.

Five interviewed researchers were also requested to respectively assess the authenticity of three selected heritages based on the informed criteria, their professional knowledge and long-time practice in conservation. Since three of them have even participated in the conservation of the City Wall of Nanjing and the Xiaoling Tomb of the Ming Dynasty, their valuations can be treated as trustworthy assessment of heritage authenticity regarding the three properties in Chinese context.

#### 4.4. Data process

To testify Hypothesis 1, we calculated and compared the mean score of each cultural attribute regarding each cultural heritage collected from tourists and experts. To testify Hypothesis 2,3 and 4, path analysis was adopted to verify if the data collected from tourists fit the hypothesized theoretical model, measuring both the direct and indirect causal relationships. Path analysis is a form of structural equation modelling (Wright, 1923, 1934), a regression-based approach to test if the informed set of variables with the hypothesized relationships is compatible a given dataset. Multiple Linear Regression (Carey, 1998) was employed to determine the relationships between the informed variables. The standardized regression coefficients were used as path coefficients. The mean score of each cultural attribute, respectively collected regarding the three cultural heritages, was adopted as the

value of variable to indicate how credibly and truthfully the cultural value was communicated through each attribute based on tourists’ personal cognition in the three cultural sites. The mean score of objectives authenticity collected respectively from the three cultural heritages was used as the value indicating the perceived objective authenticity of the total three cultural site. The values of variables indicating the overall perceived constructive and existential authenticity for the three sites were also adopted in the same way.

## 5. Findings

The results of the comparison between the mean score of each cultural attribute regarding each cultural heritage, collected from tourists and experts, are shown in Table 1. The results prove H1, demonstrating that the tourists actually reach a consensus with the experts in terms of assessing authenticity of the heritages regarding each cultural attribute.

The results of the estimated path model regarding H2, H3 and H4 are shown in Table 2, Fig. 2 and Table 3. A list of descriptive statistics is shown in Appendix C, stating the means, standard deviations, skewness, kurtosis, average variance extracted and the value of Hoelter’s N. The values of skewness and kurtosis are within  $-1$  and  $+1$ , proving that data meets the requirement of normality. The Hoelter’s critical N at the 0.05 and the 0.01 levels of significance are both larger than 200, indicating the adequacy of the sample size. For the path model, the  $\chi^2/df = 2.668$  ( $<3$ ). CFI = 0.995, TLI = 0.986 and RMSEA  $<0.08$ , indicating the goodness-of-fit of the final model is good. Table 2 illustrates firstly the direct causal relationship between the tourists’ assessment on the credibility and truthfulness in the expression of OUV through seven attributes, and the objective, constructive, existential authenticity they perceived, secondly the direct causal effect on satisfaction influenced by existential authenticity, thirdly the correlation between the tourists’ assessment on the communication of OUV through every single attribute, and fourthly the significant residual covariance between existential authenticity and satisfaction.

As illustrated in Table 2, tourists’ assessment respectively regarding every informed attribute presents a direct causal effect on one or more of the three kinds of perceived authenticity. Hence, H2 is proved. Results also indicate that tourists’ perception of objective authenticity greatly influences the constructive authenticity, and their perception of constructive authenticity has a direct causal effect on existential authenticity. The existential authenticity directly determines the tourists’ satisfaction on their visits to the three cultural heritages. Objective and constructive authenticity have the indirect causal impact on satisfaction through existential authenticity. Therefore, H3 and H4 are partially proved. Fig. 2 visualizes the final path model.

In path analysis, the correlation between an independent and a dependent variable should be the sum of the direct effect and all indirect effects. Following this rule, we uncovered the summed-up causal effects

**Table 1**  
Results of the comparison between the mean score of each cultural attribute.

Cultural heritage	Interviewee	Cultural attributes						
		Form and design	Materials and substance	Use and function	Traditions and techniques	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling
The City Wall of Nanjing	Experts	4.40	4.20	4.00	3.60	4.60	3.80	4.00
	Tourists	4.14	4.13	4.14	4.04	4.12	4.07	4.10
The Presidential Palace	Experts	4.40	4.40	4.20	4.00	4.20	4.20	4.00
	Tourists	4.28	4.18	4.12	4.15	4.16	4.19	4.13
The Xiaoling Tomb	Experts	4.60	4.60	4.20	4.40	4.80	4.40	4.20
	Tourists	4.29	4.25	4.23	4.19	4.30	4.27	4.24

**Table 2**

Results of direct causal relationship, correlation and significant residual covariance.

Determinants of objective authenticity		Determinants of constructive authenticity		Determinants of existential authenticity		Determinants of satisfaction	
Spirit and feeling	.113 *** (.053) 2.142	Spirit and feeling	.166 *** (.040) 4.108	Constructive authenticity	.569 *** (.037) 15.488	Existential authenticity	.635 *** (.062) 10.294
Language, and other forms of intangible heritage	.278 *** (.051) 5.471	Objective authenticity	.593 *** (.041) 14.488	Spirit and feeling	.180 *** (.039) 4.583		
Location and setting	.263 *** (.051) 5.174	Materials and substance	.206 *** (.039) 5.250	Use and function	.221 *** (.034) 6.441		
Traditions, techniques and management systems	.138 *** (.051) 2.718						
Form and design	.125 *** (.053) 2.349						
<b>Correlation between cultural attributes</b>							
Form and design	.395 *** (.030) 12.968	Traditions, techniques and management systems	.404 *** (.032) 12.796	Use and function	.406 *** (.033) 12.455	Language, and other forms of intangible heritage	.407 *** (.032) 12.650
Materials and substance		Materials and substance		Location and setting		Location and setting	
Language, and other forms of intangible heritage	.412 *** (.032) 12.694	Location and setting	.397 *** (.032) 12.561	Use and function	.412 *** (.033) 12.521	Language, and other forms of intangible heritage	.412 *** (.033) 12.444
Spirit and feeling		Spirit and feeling		Spirit and feeling		Use and function	
Traditions, techniques and management systems	.427 *** (.033) 12.809	Traditions, techniques and management systems	.387 *** (.031) 12.407	Form and design	.377 *** (.030) 12.506	Form and design	.396 *** (.031) 12.597
Use and function		Location and setting		Spirit and feeling		Use and function	
Form and design	.385 *** (.030) 12.700	Spirit and feeling	.396 *** (.032) 12.533	Materials and substance	.386 *** (.031) 12.454	Traditions, techniques and management systems	.390 *** (.032) 12.351
Traditions, techniques and management systems		Traditions, techniques and management systems		Spirit and feeling		Language, and other forms of intangible heritage	
Materials and substance	.391 *** (.031) 12.452	Form and design	.372 *** (.030) 12.341	Materials and substance	.387 *** (.031) 12.510	Form and design	.373 *** (.030) 12.476
Language, and other forms of intangible heritage		Language, and other forms of intangible heritage		Location and setting		Location and setting	
Materials and substance	.407 *** (.032) 12.565						
Use and function							
<b>The significant residual covariance between variables</b>							
Existential authenticity	-.036 *** (.009) -4.065						
Satisfaction							

The numbers in the parentheses are Standard Errors.

The numbers in italics are Critical Ratios.

\*\*\*P &lt; 0.05.

on the four key variables, i.e. objective, constructive, existential authenticity, and satisfaction (Table 3). Since the accumulated indirect effects caused circuitously through three or more successive layers can be negligible, we only calculate the accumulated indirect effects caused circuitously by up to two successive indirect causal effects. The results indicate that tourists' assessment on every single attribute demonstrates a direct or indirect impact on objective, constructive, existential authenticity and satisfaction.

## 6. Discussion and conclusion

### 6.1. Theoretical contributions

This research uncovers the facts that, once visitors are fully aware of the essential nature, the cultural significance of the cultural heritage, and the connotation of authenticity in heritage conservation, they can

assess the cultural values and the authenticity of a given heritage property intellectually from the perspective of conservation. Such assessment also determines the authentic quality of the tourism experience they perceive. The perceived authenticity further influences their satisfaction with the heritage site, echoing with the existing studies (e.g. Chhabra et al., 2003; Hede et al., 2014; Hernández-Mogollón et al., 2013) introduced in Section 2.2. The determinant influence from object-based authenticity to existential authenticity, identified in substantial previous findings (e.g. Meng & Choi, 2016; Park et al., 2019), is once again proved in this research.

These findings reveal the positive link between the notion of authenticity in heritage conservation and in heritage tourism. The former is subject to rigorous justification of the values manifested by the statements of cultural significance, through a cluster of suggested tangible and intangible attributes, while the latter is an amalgam of emotions, implications, memories generated through a process of

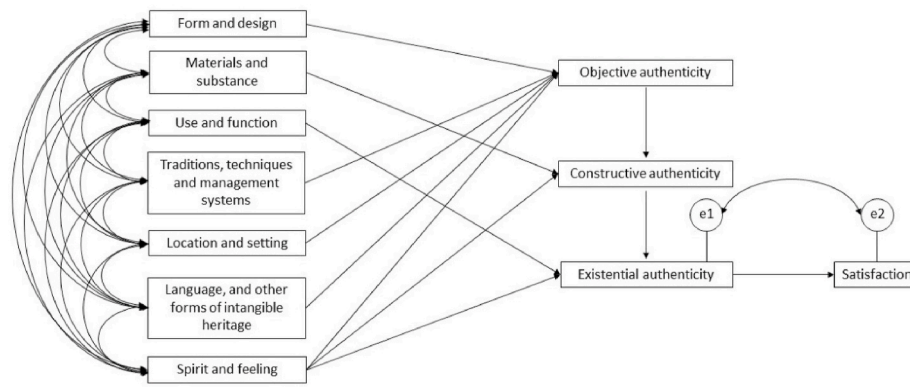


Fig. 2. Testified path model.

Table 3

Direct and indirect causal effects on objective, constructive, existential authenticity, and satisfaction.

Causal effects on objective authenticity									
Form and design	Materials and substance	Use and function	Traditions, techniques and management systems	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling			
Direct .125	Indirect .359	Indirect .377	Direct .138	Direct .263	Direct .278	Direct .113			
Indirect .297			Indirect .303	Indirect .258	Indirect .254	Indirect .320			
Causal effects on constructive authenticity									
Form and design	Materials and substance	Use and function	Traditions, techniques and management systems	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling	Objective authenticity		
Indirect .394	Direct .206	Indirect .373	Indirect .410	Indirect .455	Indirect .465	Direct .166	Direct .593		
	Indirect .277					Indirect .151			
Causal effects on existential authenticity									
Form and design	Materials and substance	Use and function	Traditions, techniques and management systems	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling	Objective authenticity	Constructive authenticity	
Indirect .380	Indirect .434	Direct .221	Indirect .399	Indirect .420	Indirect .430	Direct .180	Indirect .337	Direct .569	
		Indirect .286				Indirect .271			
Causal effects on satisfaction									
Form and design	Materials and substance	Use and function	Traditions, techniques and management systems	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling	Objective authenticity	Constructive authenticity	Existential authenticity
Indirect .241	Indirect .276	Indirect .322	Indirect .253	Indirect .267	Indirect .273	Indirect .286	Indirect .214	Indirect .361	Direct .635

intimate interaction with every single attribute of the heritage property. The proper understanding and evaluation of authenticity in heritage conservation should be based on articulated and precise statement of the origin and the cumulative changes of the property's attributes, demonstrating and distinguishing between facts and values (Boccardi, 2019). The perception of authenticity in heritage tourism, whereas, does not require too much essentialist thinking. It results from the personal feelings of the specific moments generated within a certain cultural and social context. Nevertheless, people's essentialist thinking does influence their feelings.

## 6.2. Practical implications

We argue that commodification and consumption of cultural heritage can be compatible with conservation practice, serving the sustainable and balanced demand of heritage management (Garrod & Fyall, 2000; Zhang, Zhou, Wu, Skitmore, & Deng, 2015). To facilitate such compatibility, on one hand, the knowledge about the origin, the progressive change, and the status quo of the cultural heritage should be fully accessible to the public. Through a comprehension of such knowledge, people can judge the cultural values of a property by



examining its attributes, i.e. the evidences supporting the stated cultural significance for the property, or not. In this way, “staged authenticity” will collapse as people can tell if a cultural practice or activity is “staged” for the purpose of tourism. The access to knowledge of the cultural heritage should be provided by the heritage conservation practitioners who are professional in the conservation of heritages in question. On the other hand, professionals who conceptualize and operationalise the notion of heritage authenticity should also obtain more knowledge regarding how laypeople actually perceive heritage values beyond the given system. In other words, knowledge about value assessment should flow downwards as well as upwards, meaning a less-hierarchical framework should be built up to facilitate the enrichment and sharing of heritage knowledge.

Concerning the informing of official heritage knowledge, to make sure the values are precisely justified by people, in addition to the detailed statements addressing the cultural significances of the heritage, conservation practitioners should also alert the public to the possible “vagueness and ambiguity” (Boccardi, 2019) of the interpretations of the property. For instance, the Xiaoling Tomb of the Ming Dynasty may be interpreted in many publications as an outstanding example of the architecture and stone carving art in the early Ming Dynasty. However, as mentioned in Section 3, Fang-cheng Ming-lou (the gatehouse) in the Xiaoling Tomb is actually a modern replacement for the original timber one. In addition, many timber parts of the tomb are already rotten or destroyed. The well preserved are mainly the landscape and some timber structures of the tomb, that demonstrate the original spatial layout. Thus, it is not precise to state this tomb as an architectural complex of the early Ming Dynasty, as some attributes of the property now only partly exist or have been replaced, hence do not support such statement.

To realize the exchange of heritage knowledge between professionals and laypeople, conservation practitioners and policy makers can involve domestic tourists in the decision-making process of heritage management and tourism management, performing an open dialogue. We have to admit there are more national, regional or local heritage values not recognized as OUV by world heritage committee, but greatly prized by domestic visitors and inhabitants. The protection of OUV, in many cases, denotes sacrificing the protection of others (Phillips & Young, 2017), paying attention only on OUV means putting the unofficial values at risk and undermining the overall heritage values supporting the authenticity. Concerning the vital role both OUV and other values play in underlying the cultural significances and enhancing the heritage authenticity, laypeople’s awareness of OUV and professionals’ awareness of unofficial values should be facilitated in a collaborative and inclusive management system.

Through an in-depth discussion on the facts and values of the property on the basis of various perspectives and standpoints, a shared understanding of heritage authenticity can be shaped. Under this approach, heritage managers can strategize with a more comprehensive knowledge base for enhancing heritage authenticity, meanwhile balancing heritage conservation, high-quality visitor experience (Ala-zaizeh, Hallo, Backman, Norman, & Vogel, 2016; Apostolakis & Jaffry, 2005), visitor satisfaction, urban regeneration (Verdini, 2015), and economic benefits (Bruyere, Beh, & Lelegula, 2008; Cho & Shin, 2014).

### 6.3. Limitations and future studies

Despite its theoretical and practical contributions, the present study also has a couple of limitations. First, the findings result only from the

case study of the three cultural heritages in Nanjing. It is possible that the estimated model is more valid and relevant regarding tourist experience in the heritages in this city. Further research needs conducting in other historical cities in China and other counties. Second, demographic factors, including age and level of education, were not used in this study as control variables, which to some extent, weakens the findings. Future studies should establish such factors as control variables to increase the validity of the results. Third, given the advancement of the quantitative approach employed, it may have limitations in debates about the construction and connotation of heritage authenticity. Future studies should try to combine the qualitative and the quantitative approaches to build up a methodology that makes more room for the interviewed tourists to debate.

### 6.4. Conclusion

This article, through literature review, questionnaire survey and open-ended interview, firstly uncovers the potential alignment between experts and tourists in regards to the evaluation of the authentic quality of cultural heritages, once sufficient facts and values of the heritages, and the connotation of heritage authenticity are provided, secondly the causal relationship between the tourists’ assessment on the authenticity in light of conservation, their perception of objective, constructive and existential authenticity regarding the travel experience, and in addition, satisfaction with the cultural heritage site. The findings point towards the possible compatibility of heritage conservation and heritage consumption, that can be facilitated by publicizing the meticulous facts and statements of cultural heritages and the approach to assess the heritage authenticity through examining all the relevant attributes, as well as realizing the exchange of heritage knowledge between professionals and laypeople. In this way, a shared understanding on heritage authenticity can be established among the conservation practitioners and the public, fulfilling the sustainable demand of heritage management.

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### CRediT authorship contribution statement

**Tianchen Dai:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Writing - original draft, Writing - review & editing. **Xing Zheng:** Software, Writing - review & editing. **Juan Yan:** Methodology, Writing - review & editing.

### Declaration of competing interest

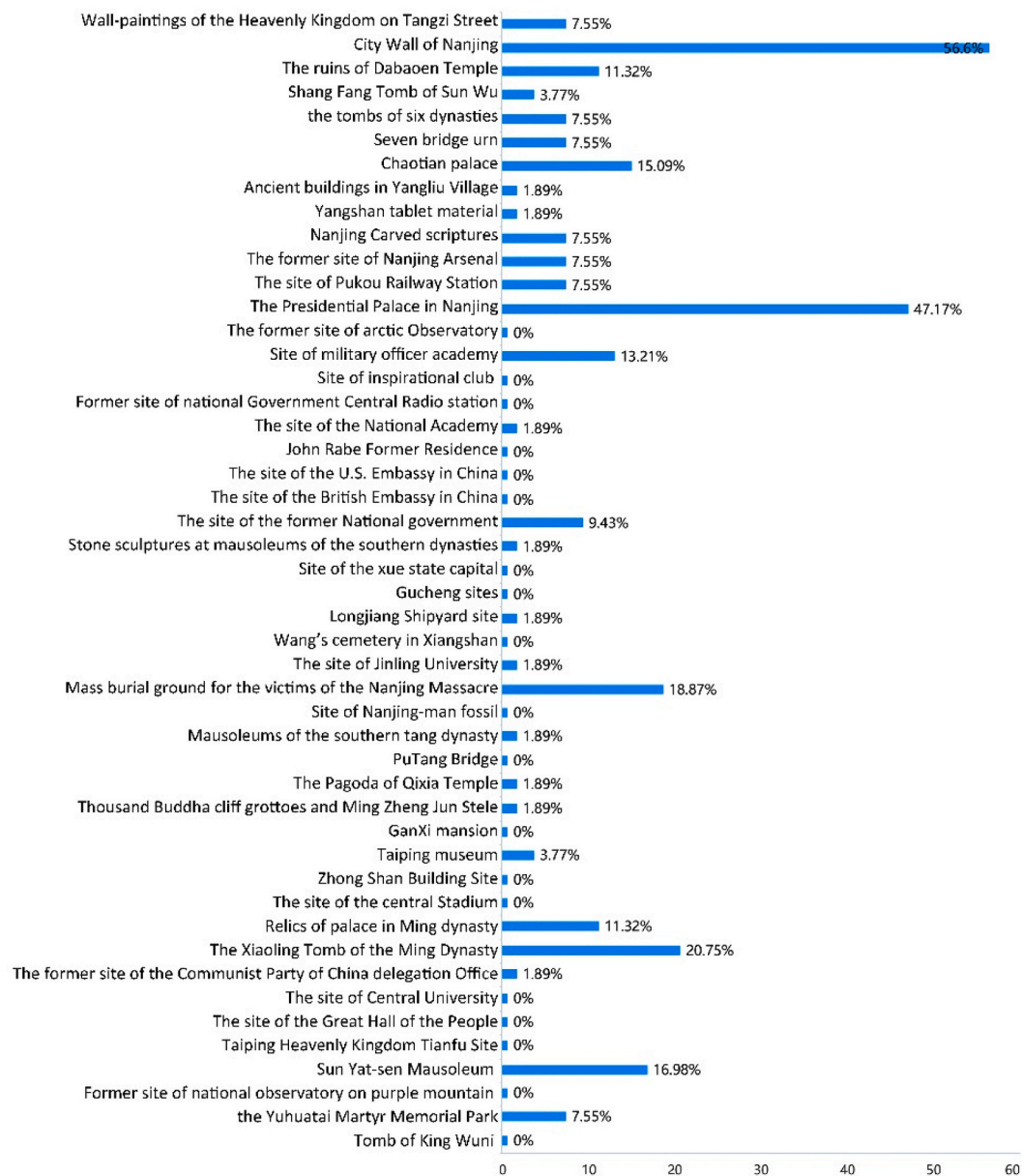
None.

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## Appendices.

### Appendix A. Visitors' choices on the most well-known cultural heritages in Nanjing



## Appendix B. Translated English version of the questionnaire used to interview 363 visitors

1. What is your age

☐ Under 18      ☐ 18-25      ☐ 26-30      ☐ 31-40

☐ 41-50      ☐ 51-60      ☐ Over 60

2. What is your gender?

☐ Male      ☐ Female

3. What is your education level?

☐ Junior high school      ☐ Senior high school      ☐ Bachelor degree

☐ Master degree      ☐ Ph.D. degree

4. Questions on cultural attributes

4.1 According to your visit to the City Wall of Nanjing, do you agree that through the following attributes, the aesthetic, historic, scientific, social or spiritual value of this cultural heritage site is credibly and truthfully expressed?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Form and design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Materials and substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use and function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traditions and techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language, and other forms of intangible heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spirit and feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.2 According to your visit to Nanjing Presidential Palace, do you agree that through the following attributes, the aesthetic, historic, scientific, social or spiritual value of this cultural heritage site is credibly and truthfully expressed?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Form and design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Materials and substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use and function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traditions and techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language, and other forms of intangible heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spirit and feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.3 According to your visit to the Xiaoling Tomb of the Ming Dynasty, do you agree that through the following attributes, the aesthetic, historic, scientific, social or spiritual value of this cultural heritage site is credibly and truthfully expressed?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Form and design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Materials and substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use and function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traditions and techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language, and other forms of intangible heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spirit and feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 5. Questions on perceived authenticity

5.1 According to your visit to the City Wall of Nanjing, how much authenticity do you perceive regarding the objective authenticity, constructive authenticity and existential authenticity?

	Not at all	Slightly	Moderately	Very	Extremely
Objective authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructive authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Existential authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.2 According to your visit to Nanjing Presidential Palace, how much authenticity do you perceive regarding the objective authenticity, constructive authenticity and existential authenticity?

	Not at all	Slightly	Moderately	Very	Extremely
Objective authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructive authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Existential authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.3 According to your visit to the Xiaoling Tomb of the Ming Dynasty, how much authenticity do you perceive regarding the objective authenticity, constructive authenticity and existential authenticity?

	Not at all	Slightly	Moderately	Very	Extremely
Objective authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructive authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Existential authenticity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 6. Questions on satisfaction

6.1 Are you satisfied with your visit to the City Wall of Nanjing?

Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Completely satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.2 Are you satisfied with your visit to Nanjing Presidential Palace?

Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Completely satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.3 Are you satisfied with your visit to the Xiaoling Tomb of the Ming Dynasty?

Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Completely satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

. (continued).

## Appendix C. Descriptive statistics indicating the means, standard deviations, skewness, kurtosis, average variance extracted and the Hoelter's N

Descriptive statistics	Variables										
	Form and design	Materials and substance	Use and function	Traditions and techniques	Location and setting	Language, and other forms of intangible heritage	Spirit and feeling	Objective authenticity	Constructive authenticity	Existential authenticity	Satisfaction
Mean	4.2397	4.1882	4.1635	4.1341	4.1974	4.1772	4.1561	4.2420	4.2273	4.2195	4.0248
Std. Deviation	0.64164	0.66279	0.67188	0.70063	0.67163	0.68268	0.67499	0.63736	0.64264	0.65121	0.80189
Skewness	−0.638	−0.519	−0.590	−0.560	−0.574	−0.506	−0.475	−0.521	−0.492	−0.521	−0.400
Kurtosis	0.121	−0.243	0.482	0.260	−0.094	−0.418	−0.298	−0.433	−0.396	−0.397	−0.339
Average variance extracted	0.8305										
Hoelter 0.5	212										
Hoelter 0.1	252										

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