



# Authenticity and place attachment of major visitor attractions



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## HIGHLIGHTS

- Place attachment is an antecedent of authenticity of visitor attractions.
- Heritage value and iconicity are moderators of perceived authenticity.
- Visitor attractions contribute to the perceived authenticity of tourism destinations.

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## ABSTRACT

This paper aims to explore the relationships between place attachment and perceived authenticity of major visitor attractions. The empirical study was conducted with a sample of international tourists to major visitor attractions in two capital cities, Helsinki, Finland and Jerusalem, Israel. The results indicate a positive correlation between place attachment and authenticity. Major visitor attractions located in places with considerable heritage experience value are considered more authentic, and that authenticity of visitor attractions is influenced by place attachment moderated by iconicity and heritage value of the destination region. These findings provide insight to the ways tourists perceive authenticity of visitor attractions and highlight the importance of the heritage value of tourism destinations for strategic planning and marketing purposes.

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## 1. Introduction

Major visitor attractions stand out as the strongest pull-factors of a destination and are considered as key destination resources for development and marketing. They are often defined as flagship and/or iconic objects/structures/projects, which draw a relatively large number of visitors to their premises and/or to their region. Although they are often considered a catalyst for economic development (e.g. Grodach, 2008, Grodach, 2010; Plaza, 2008; Miles, 2005; Law, 2002), there is insufficient knowledge on their touristic appeal, which has far-reaching consequences including the need for ongoing public funding to keep them operational (Weidenfeld, 2010). Visitor attractions have been analyzed out of three different perspectives (Brown, 2003). The ideographic perspective focuses on the physical and cultural features of a place. The organizational perspective discusses the relationship between

attractions, how they compete or play together on a destination, and the third, cognitive one focuses on how tourists perceive attractions. In this paper, visitor attractions are approached through the lens of a cognitive perspective pertaining tourist perception of authenticity and place attachment.

Authenticity in the context of tourism suppliers is perceived as an essential asset of firms that provide services for consumers, which are not only satisfied with low costs and high quality, but also seek for genuine experiences (Pine & Gilmore, 2008). However, this approach ignores how consumers perceive authenticity. The current paper aims to bridge this gap by exploring the ways consumers perceived authenticity. Yet, instead of focusing on the general context of experiences, the work will explore the special context of tourism, and more specifically the ways tourists perceive authenticity of major visitor attractions.

The link between authenticity and experience has been widely discussed by tourism scholars (e.g. MacCannel, 1973; Rickly Boyd, 2012; Wang, 1999). Apart from existential authenticity (Wang, 1999), the main discussion has been between the essentialism and the constructivism perspectives, and questioned whether the authenticity reflects a true image of the past (essentialism) or if it is

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a subject to contemporary inputs and influences (constructivism) (for full review about the subject, Chhabra, 2008). However, this debate can be perceived as a sociological concern rather than a managerial issue, and thus does not correspond to Pine and Gilmore's (2008) ideas of authenticity. In line with Pine and Gilmore's observation, Kolar and Zabkar's (2010) portrayed authenticity by the enjoyment of tourists and by the tourists' perception of "how genuine are their experiences" (p. 654).

Place attachment represents individuals' emotional bindings to geographic areas and has been researched for its dimensionality, effects and influence on tourists' perception of environmental and social conditions encountered on tour (Kyle, Graefe, Manning, & Bacon, 2004; Lee & Shen, 2013). However, its links to authenticity in tourism have been largely ignored. Therefore, this paper aims to explore these understudied relationships between tourist perception of authenticity and place attachment in tourism, by focusing on the visitor attraction sector through from a cognitive perspective. It is original in suggesting indicators to measure perceived authenticity and place attachment of visitor attractions and in examining the concept of iconicity in relation to authenticity of major visitor attractions. Given that perceived authenticity and iconicity are often more relevant to the heritage tourism context, the paper also examines the influence of heritage value of destination regions and iconicity on perceived authenticity of major visitor attractions.

## 2. Theoretical framework and hypotheses development

### 2.1. Authentic authenticity

Extensive research addresses the construct of authenticity, its dimensions and different types of index to measure levels of authenticity in organizational messages and actions, as well as perceived authenticity from the stakeholders' perspective. Special attention was put on tools and mediators between the public and organizations (See Molleda, 2010). The meaning and interpretation of what is authentic and what authenticity means can be approached in at least three different ways: its characteristics, levels of verification (or experience), and a state of being. A summary of the definitions of 'authentic' from several dictionaries by Molleda (2010) can be used to describe individuals, objects, communication products and events, and all types of organizations. In tourism, it is often related to toured objects, tourism sites, and tourist experiences (Rickly Boyd, 2012).

'Authentic' is often described in terms of its characteristics being real, reliable, trustworthy, original, first hand, true in substance, and prototypical as opposed to copied, reproduced or done the same way as an original. Objective authenticity differs from constructive, symbolic authenticity (Barthel, 1996; Reisinger & Steiner, 2006) and is based on originality and the genuineness of objects and sites verified by experts (Kolar & Zabkar, 2010). Symbolic authenticity, in contrast, is determined by the tourist being subjective, negotiable and contextual. Within the framework of a constructive approach of authenticity, major visitor attractions offer services and experiences, which constitute economic value, and their scope of authenticity can include exceptional and referential authenticity respectively (Molleda, 2010). Exceptional authentic refers to what "... people tend to perceive as authentic that which is done exceptionally well, executed individually and extraordinarily by someone demonstrating human care; not unfeelingly or disingenuously performed" (Molleda, 2010, p. 230). Referential authentic refers to what "... people tend to perceive as authentic that which refers to some other context, drawing inspiration from human history, and tapping into our shared memories and longings; no derivative or trivial" (Molleda, 2010, p. 230). Authenticity as a 'state of being' includes a philosophical discussion

of the self in context (external world) and a reflection of how true one is to oneself balancing two parts of one's being, rational and emotional. This perspective defines "existential authenticity as an alternative experience in tourism" (Wang, 1999, p. 358) with a focus on how open minded the tourist is to his/her experiences in the liminal spaces tourism offers (Brown, 2013).

The kaleidoscopic twist in this study emphasizes a tourist perspective on authenticity being subjective and experiential (Kolar & Zabkar, 2010). This approach aims to explore how tourists perceive authenticity in terms of an evaluation of its "genuineness", when visiting major visitor attractions. In so doing, this research adds to the ongoing discussion of authenticity of visitor attractions, which, so far, has been mainly theoretical (Brown, 2013; Molleda, 2010; Rickly Boyd, 2012), and focused on antecedents and consequences of authenticity (Kolar & Zabkar; 2010).

### 2.2. Place attachment – the self and the place

The emotional link between the self and the place is known in psychology as 'place attachment' (Gross & Brown, 2006; Gross & Brown, 2008; Hidalgo & Hernandez, 2001; Kyle, Graefe, Manning, & Bacon, 2003; Kyle et al., 2004). This link produces "the sense of physically being and feeling 'in place' or 'at home'" (Yuksel, Yuksel, & Bilim, 2010, p. 275) and provides a sense of trust and security (Tsai, 2012). In tourism, place attachment is analyzed as a multifaceted concept, which is constituted of two to four interrelated components (Gross & Brown, 2006, 2008; Hwang, Lee, & Chen, 2005; Kyle et al., 2003, 2004; Ramkinsoon, Weiler, & Smith, 2012; Tsai, 2012; Yuksel et al., 2010). The first component, *place identity*, represents the identification of the tourist with a certain place or with its symbolic value (Gross & Brown, 2006, 2008; Hwang et al., 2005; Kyle et al., 2003, 2004; Ramkinsoon et al., 2012; Tsai, 2012; Yuksel et al., 2010). The second, *place dependence*, describes how much a specific place meets the tourists' needs, and can be perceived as the functional attachment component (Gross & Brown, 2006, 2008; Hwang et al., 2005; Kyle et al., 2003, 2004; Ramkinsoon et al., 2012; Tsai, 2012; Yuksel et al., 2010). The third, *affective attachment*, has so far received limited attention (Kyle et al., 2004; Ramkinsoon et al., 2012; Tsai, 2012; Yuksel et al., 2010), and refers to the strong feeling tourists feel towards a destination. The fourth, the *social bond*, does not relate directly to spatial aspects, but to the social relations a specific place enhances (Kyle et al., 2004; Ramkinsoon et al., 2012).

The question if place attachment is best described by three different facets is still open. The different facets of place attachments were found as significantly interrelated in previous studies (Gross & Brown, 2008; Kyle et al., 2003; Yuksel et al., 2010). However, other studies refer to place attachment as a one-dimensional construct, either as a unified latent variable (Hwang et al., 2005; Ramkinsoon et al., 2012) or an observational construct (Prayag & Ryan, 2012). In the light of the interdependence between the facets of place attachment, and based on previous studies which examined the place attachment construct as a unified dimension (Hwang et al., 2005; Prayag & Ryan, 2012; Ramkinsoon et al., 2012), the current study addressed place attachment as a unified construct with a single dimension.

Three branches were identified in the context of place attachment in the subjective tourist experience research: the first branch views place attachment as an independent variable or as an antecedent of tourists' behaviors and attitudes. It focuses on prediction of visit outcomes based on tourists' place attachment levels (Hwang et al., 2005; Ramkinsoon et al., 2012; Yuksel et al., 2010) and on prediction of pro-environment behaviors (Ramkinsoon et al., 2012). The second refers to place attachment as a mediator between antecedents and outcomes and analyzes the mediating

effect of the place attachment concept, between tourists' attitudes and visit outcomes (Prayag & Ryan, 2012; Tsai, 2012). The third branch perceives the place attachment as an outcome by itself and tries to predict place attachment levels by using attitudes as predictors (Gross & Brown, 2008; Kyle et al., 2003, 2004).

Place attachment is a concept that was derived from the Attachment Theory (Bowlby, 1969; Bowlby, 1973; Bowlby, 1980), a leading and influential psychological theory that perceives attachment as a relatively steady personality trait. According to this theory, individuals possess a tendency to trust (or distrust) meaningful others, based on early childhood experiences. As such, the branches which focus on place attachment as an antecedent to behavior and attitudes or as a mediator seems to be a more coherent extension of the original theory. In this context it is not surprising that the explained variance of models, which refer to the third branch (Gross & Brown, 2008; Kyle et al., 2003; 2004) found to be relatively low ( $R^2 < 0.25$ ), except one result that focused solely on social bonding (Kyle et al., 2004). Hence, the current study focuses on place attachment of adult tourists as an antecedent of tourist experience, and not as an outcome of places and experiences. This corresponds to the core idea of attachment theory, which perceived the attachment style as relatively stable across life span (Ainsworth, 1985) and tends to be unaffected in response to ongoing events and experiences (such as visiting a new place). More specifically, the current study examines the relation between the sense of place attachment and attitudes of tourists in terms of perceived authenticity.

Research on the relationship between place attachment and authenticity remains limited. Tussyadiah and Zach (2012) indicated that the tourism experience of place may be linked to their feelings about authenticity, but provided no empirical evidence. Belhassen, Caton, and Stewart (2008) pointed on links between authenticity and sense of attachment among pilgrims, but never elaborated it to the tourism experience, while Budruk, White, Wodrich, and Van Riper (2008) found that place identity was the strongest predictor of perceived authenticity among visitors in a cultural heritage site in Arizona. Kianicka, Buchecker, Hunziker, and Müller-Böker (2006) offer a more general view on the link between place attachment and authenticity analyzing the sense of a Swiss alpine village out of both a tourist and local perspective. They conclude that locals and tourists use the same landscape characteristics in constructing sense of place but associate different meanings to them. For tourists, categories relevant to sense of place are landscape, social relationships, culture, leisure activities, and local economy, whose perceived authenticity is built on. Therefore, it could be predicted that place attachment is related to the authenticity perceived by tourists to major visitor attractions.

**H1.** A positive correlation would be found between place attachment and perceived authenticity

### 2.3. *Perceived tourism destination experience value and authenticity*

Tourism destination regions can be associated with famous persons, hallmark events, local products and specialties, high-impact transportation, research and knowledge infrastructure, and flagship buildings. As a consequence, the destination may constitute an experience value (Ashworth, 2009). Sydney, for example, is strongly associated with its Opera House and Bilbao with the Guggenheim Museum (Sklair, 2010). However, in line with research on branding (Aaker, 1996), brand extension (Iversen & Hem, 2011), and country-of-origin effects (Dichter, 1962) one can also assume a spill-over effect in a reverse order from destination regions to attractions on the condition they co-occur (Van Osselaer & Alba, 2000; Van Osselaer & Janiszewski, 2001) and the consumer links them together.

In the context of historic places their heritage experience value is determined by religious and/or historic significance, presented in stories, rites, landmarks or artifacts (Calver & Page, 2013) perceived as authentic representations of the past. These elements, which can have a value of their own (value-in-self) and/or be allotted value as a part of a contextual story (value-in-context) (Heras et al., 2013; McDonald, 2011) bring heritage experience value to a region or a place (Hargrove, 2002), which in line with the association theory of cognitive psychology (Neisser, 1976) spill over to other visitor attractions. Thus, a positive relationship between the heritage value of tourism destinations and perceived authenticity of visitor attractions are assumed (Kalavar, Buzinde, Melubo, & Simon, 2014; Yankholmes & Akyeampong, 2010; Poria, Butler, & Airey, 2003). Following this line of reasoning the second hypothesis is:

**H2.** Visitor attractions in places that have a perceived heritage experience value would be considered as more authentic compared to attractions in heritage sites of less value.

### 2.4. *Authenticity and iconicity of major visitor attractions*

Authenticity is communicated through heritage and links with past events, resulting in the continuance of myths regarding the production processes of certain style icons (Molleda, 2010). Authenticity of objects can be both a social construction and a source of evidence and are classified into two types of authenticity: iconic and indexical (Grayson & Martinec, 2004). Grayson and Martinec (2004) note that "index" refers to cues that have a factual and spatio-temporal link with something else, such as the link between an actor and his handprints. To view something as an index, the perceiver must believe in the existence of such a link by having some kind of verification, which can emerge out of consumers' personal experience (Grayson & Martinec, 2004). In such cases, objects are described as "authentic" when their physical manifestation resembles something that is indexically authentic (Molleda, 2010).

An icon is something that is perceived as being similar to something else, and perceivers must have pre-existing knowledge or expectations. Iconicity is the use of a mental template (such as iconicity with history, fiction or old things) or 'composite picture' to assess whether something's physical manifestation is similar to something that is indexically authentic. It creates a dialog over history, space and identity, values between marketers and consumers about authenticity, and is directly affected by social and cultural objectives (Grayson & Martinec, 2004) and products' marketability (Weidenfeld, 2010). Authenticity is denoted through physical attributes (indexically) and brand essence (iconically). Authenticity of iconic attractions evaluated by consumers can be graded, not binary, as more or less iconic or indexical (Grayson & Martinec, 2004). However, a visitor attraction could not be described as iconic without having an indexical value. Therefore, in this study, we use the term iconic for all types of major attractions, which include those characterized by more indexical and/or iconic authenticity than other visitor attractions. Therefore, the third hypothesis of the current study will be:

**H3.** Iconic visitor attractions would be perceived by tourists as more authentic in comparison to other visitor attractions

### 2.5. *Iconicity, heritage, place attachment and authenticity*

The theoretical framework underlies a relationship between the sense of place attachment of tourists to major heritage attractions and the authenticity they perceive. This relation may be causal, since place attachment is considered as an antecedent of perceived authenticity (Hwang et al., 2005; Prayag & Ryan, 2012; Tsai, 2012; Ramkinsoon et al., 2012; Yuksel et al., 2010) but also moderated

by intervening variables. Hence, [Belhassen et al. \(2008, p. 673\)](#) claim that “The toured objects and social constructions surrounding the experiences cannot be separated from the experience itself when analyzing it”. The context influencing the experiences, heritage value of destinations and iconicity of tourist attractions may impact the perceived authenticity of visitor attractions. This is particularly germane to heritage tourism destinations, where visitors travel “to experience the places, artifacts and activities that authentically represent the stories and people the past and present” ([Hargrove, 2002, p. 10](#)). [Long \(2004\)](#), for example, explains how the Appalachian food culture in Asheville village iconized in special foods is partly reflected on the authenticity of the city’s Farmers Markets and local festivals. Similarly, the authenticity of signature buildings is dependent on their location; the “real” Eiffel tower located in Paris (has to be) is a vital component in the place branding strategy of Paris and France ([Ashworth, 2009](#)) and the Guggenheim-Bilbao Museum effects is an example of the embeddedness of an iconic building within its region ([Plaza, 2000; 2008](#)). Consequently, it is assumed that the potential influence of the personal tendency of place attachment on perceived authenticity might depend on the specific levels of iconicity of visitor attractions and heritage value of the destination region. [Fig. 1](#) describes this model of moderation. Based on this moderation model, the fourth hypothesis is:

**H4.** the perceived authenticity of visitor attractions is influenced by place attachment and moderated by heritage value of destination regions and iconicity of the attractions

### 3. Methodology

#### 3.1. Locations and procedure

In order to capture the differences between perceptions of authenticity of visitor attractions, a cross sectional design was adopted, with four independent samples of comparable populations. All the samples included tourists to major visitor attractions which attract a relatively large number of visitors compared to others based on official data on visitor numbers at two capital cities: Helsinki and Jerusalem ([Helsinki’s Official Travel Site, VisitHelsinki, 2013; Jerusalem Foundation, 2013](#)). These two capitals are similar in size, and the home of about ten percent of their countries’ populations. They differ in their heritage: while Jerusalem is considered as a unique symbol of spirituality and is loaded with historical monuments and stories ([Jerusalem’s Official Travel Site, http://www.itraveljerusalem.com](#)), Helsinki is positioning itself as a modern city ([Helsinki’s Official Travel Site, http://www.visithelsinki.fi](#)). In this study, Jerusalem represents a heritage destination, while Helsinki represents a destination with less heritage appeal to tourists. In each capital city, two major comparable attractions, which differ in their iconic nature, were selected ([Weidenfeld, 2010](#)). First, the most typical and centrally located iconic attraction was chosen, based on its salience in the official city website and touristic brochures. In Helsinki the iconic historical monument is the Dome ([Helsinki’s Official Travel Site, http://www.visithelsinki.fi](#)) while in Jerusalem, it is the Tower of David ([Jerusalem’s Official Travel Site, http://www.](#)

[itraveljerusalem.com/](#)). Secondly, another major attraction, which is located at an edge of town location was chosen, Helsinki zoo in Helsinki and Jerusalem zoo in Jerusalem ([Helsinki Zoo’s Official Site, http://www.korkeasaari.fi](#)) ([Jerusalem’s Zoo Official Site, http://www.jerusalemzoo.org.il/](#)).

In Helsinki, data were collected at the entrance to the Dome at the city center and the ferry line to Helsinki Zoo by two trained interviewers during June–August 2012. Data from Jerusalem were collected in the Tower of David, and Jerusalem Zoo, by two trained interviewers during January–April 2013. Given the differences between the two destinations in terms of seasonal fluctuation in international tourism numbers and more difficulty in capturing tourists in Jerusalem (more visited around Christmas and Easter) than Helsinki (a summertime destination), data was collected in different times and took a little longer in Jerusalem. The choice of on-site sampling was derived from the study objective, to study the attitude of tourists towards tourist attractions.

#### 3.2. Research instrument and questionnaire

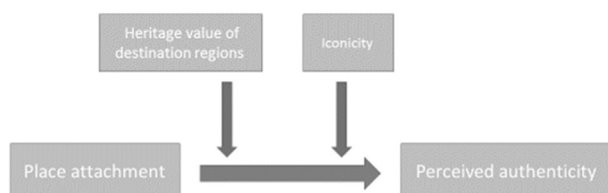
A self-report questionnaire that included four parts: place attachment, authenticity, information about the current trip and personal information was designed as the main instrument. The choice of a self-reported questionnaire was motivated by limitations of time and money, since face to face interviews with almost 400 tourists would be highly costly. Four research assistants were hired to hand over questionnaires on sites and to deal with respondents’ questions and requests for clarifications.

The first version of the scale was distributed as a pilot stage on August 2012 to twenty participants; five participants in each major visitor attraction (Helsinki Dome, Helsinki Zoo, Tower of David and Jerusalem Zoo). Their responses to the scales were monitored closely, and they were asked to give comments on the scale, which informed the design of the final version of the scale.

The place attachment scale was composed of three existing scales of place attachment ([Gross & Brown, 2006; Kyle et al., 2004; Yuksel et al., 2010](#)). However, many items of each scale repeated themselves in the three versions, and thus only a total number of fourteen items were included in the study. Based on the pilot stage (described above), another reduction took place, diminishing similar questions, resulting in the inclusion of seven items in the final version of the questionnaire ([Appendix A](#)). Respondents rated these items on a 7-point Likert scales ranging from 1 (not at all) to 7 (very much). The internal reliability of the final place attachment scale was found as acceptable and high ( $\alpha$  Cronbach = 0.889).

The authenticity items were adopted from [Kolar and Zabkar \(2010\)](#) with minor adaptations. Examples for authenticity items are “During the visit I felt related to the history of <name of capital>” or “I liked the way <name of the attraction> was designed”. The participants in the pilot stage did not have comments regarding the authenticity items, thus the final version was identical to the version of the pilot stage. The reliability of the authenticity scale was found as acceptable and high ( $\alpha$  Cronbach = 0.846). The respondents rated the seven items of place attachment and the five items of authenticity of one unified seven – point Likert scale ranging from one (not at all) to seven (very much).

Both place attachment and authenticity items were slightly modified to suit the nature of the zoos. The information about the current trip included items on the main purpose of the visit, the length of the trip and travel party composition. The final part of the questionnaire included personal and demographic information such as gender, education, income and religious affiliation as well as other items, which are not addressed by the current study. Given that the study questionnaire was translated into two languages (Swedish and Russian), special attention was given to possible



**Fig. 1.** The moderation effect in the impact of place attachment on perceived authenticity of major visitor attractions.



differences between the three different versions of the questionnaire (English, Swedish and Russian). However, no differences were found (See [Appendix B](#)).

The estimation of the model with the empirical data was done by the partial least squares (PLS) path modeling method ([Vinzi, Trinchera, & Amato, 2010](#)) and was applied using the SmartPLS 3.2.0 software application ([Ringle, Wende, & Becker, 2015](#)). The statistical analysis was performed using IBM SPSS (21). For testing the first hypothesis, which addressed correlation between the constructs of place attachment and perceived authenticity, a Pearson correlation was performed. The second and third hypotheses that focused on differences between means of the perceived authenticity in different locations, were tested by using a t-test for independent samples. The fourth hypothesis of causal relations was studied by a linear regression, when the perceived authenticity served as a predictor for place attachment (the criterion). Furthermore, since the fourth hypothesis involved two moderators, namely – the heritage value of destination regions and iconicity of the attractions, an additional analysis was done using the PROCESS free tool for SPSS ([Hayes, 2012](#)). This tool enables the learning of conditional effects of one or more moderators while performing a linear regression analysis of cause and outcome.

#### 4. Results analysis

A number of one hundred and seventy six tourists were recruited in Helsinki, from whom eighty eight were targeted at the Dome, and the same number in the zoo. In the Jerusalem samples, one hundred and ninety seven tourists were targeted, of whom one hundred and seven were visiting the Tower of David, and ninety were visiting the Zoo. The total number of participants in the study was 373 (46% women). Most of the visitors reported belonging to the Christian religion ( $n = 165$ ) or Judaism ( $n = 71$ ). The majority of visitors to Jerusalem zoo were Jewish, whereas other visitor attractions (including Tower of David) attracted mostly Christian visitors. The tourists were generally young (under 34 years old) except in the Tower of David, which attracted older visitors (forty percent older than 54) than the other attractions. Half of the sample reported having at least a college degree, except for tourists to Helsinki zoo, with only quarter of them reported having at least a college degree. In terms of length of visit in the different countries (Finland/Israel) and capital cities (Helsinki/Jerusalem), no significant differences were found between the samples ( $F(3,355) = 0.329$ ;  $F(3, 356) = 0.676$  respectively, both  $p > 0.05$ ). Other demographic characteristics can be found in [Appendix C](#).

The current study is exploratory in terms of the relationship between authenticity and place attachment, and does not build on directly previous studies. As a consequence, the measurement model applied a Structure Equation Modeling (SEM) with a partial least squares (PLS) approach, which enables to estimate a less restricted model and does not need to be based on a solid theory. Its predicted-oriented nature makes it specifically suitable for exploratory stages of studies ([Aye, Au, & Law, 2013](#); [Henseler et al., 2014](#); [Wong, 2013](#)). The PLS-SEM model analysis (see [Appendix D](#)) shows that all measures meet the commonly suggested criteria for measurement model assessment ([Bagozzi & Yi, 1988](#); [Chin, 1998](#); [Fornell & Larcker, 1981](#); [Hulland, 1999](#); [Wong, 2013](#)).

The indicators reliabilities were found as acceptable as all indicators, but one, met the preferred level of 0.7 or higher ([Wong, 2013](#)). However, in exploratory stages a loading of 0.4 or higher is acceptable ([Hulland, 1999](#)). The Composite Reliability (CR) measurements demonstrated a high level of internal consistency in both latent variables, exceeding the recommended threshold of 0.6 ([Chin, 1998](#); [Wong, 2013](#)). The evaluation of Average Variance Extracted (AVE) confirmed the convergent validity, when found as higher than 0.5 in

both latent variables ([Chin, 1998](#); [Wong, 2013](#)). Two approaches were used to assess the discriminate validity of the measurement model. First, an examination of the indicators' cross loading confirmed that no indicator loads higher on the opposing construct ([Chin, 1998](#)). Second, the [Fornell and Larcker \(1981\)](#) criterion was applied by confirming that the square root of AVE in each latent variable is larger than other correlation values among the latent variables.

The descriptive statistics (means and standard deviations) of the study's variables of place attachment and authenticity are presented together with their F scores ([Table 1](#)). Results show significant differences between attractions in most items. In order to test the study hypotheses, two mean scores were calculated, representing measures of place attachment (Mean = 4.277, SD = 1.149) and authenticity (Mean = 5.010, SD = 1.155). In both cases, F scores were significant and indicated on significant differences between the attractions with regard to place attachment ( $F(3,368) = 3.820$ ,  $p < 0.01$ ) and authenticity ( $F(3,367) = 44.744$ ,  $p < 0.01$ ).

A Pearson correlation was used to test Hypothesis H(1) regarding a positive correlation between place attachment and authenticity. The correlation was found as high and significant ( $R = 0.708$ ,  $p < 0.001$ ) and hence supports hypothesis H(1). For testing Hypothesis H(2), which predicts a significant difference between the perceived authenticity in destinations with high versus low "heritage value", a t-test was calculated between the mean scores of perceived authenticity for tourists visiting attractions in both cities. Results show that tourists perceived both attractions in Jerusalem, a destination with high "heritage value" as more authentic ( $M = 5.559$ ,  $SD = 1.089$ ) than both attractions in Helsinki ( $M = 4.392$ ,  $SD = 0.887$ ), a destination with relatively low "heritage value". This difference is found as significant ( $t(369) = 11.233$ ,  $p < 0.001$ ) and the effect size, using Cohen's  $d$  calculation is 1.17, which is considered as large effect ( $>0.80$ ) according to [Cohen \(1977\)](#) guidelines. Thus, hypothesis H(2) was supported.

Hypothesis H(3) focuses on the difference in perceived authenticity between tourists to attractions with high iconicity value and to attractions with low iconicity value. For testing this hypothesis, a t-test was calculated to examine the differences in perceived authenticity between the iconic attractions (i.e. higher iconicity), Helsinki Dome of Helsinki and Tower of David together and both zoos (lower iconicity). However, the t-test was found as non-significant ( $t(369) = -0.669$ ,  $p > 0.05$ ), indicating that the perceived authenticity in the two high iconic attractions ( $M = 5.048$ ,  $SD = 1.042$ ) is not different than the perceived authenticity that was perceived in both low iconicity attractions ( $M = 4.967$ ,  $SD = 1.270$ ). As a result, Hypothesis H(3) was rejected.

In order to test Hypothesis H(4), which predicts that the perceived authenticity of attractions is influenced by place attachment and moderated by iconicity (a characteristics of the attraction) and by heritage value (a characteristic of the destination), a model of a linear regression with a moderating effect was calculated using the PROCESS free tool for SPSS ([Hayes, 2012](#)). The PROCESS tool enables to reveal the conditional effects of moderation and to test these effects as null hypotheses. The regression analysis was found as significant ( $F(5,365) = 143.867$ ,  $p < 0.001$ ) indicating that the effect of place attachment on perceived authenticity is moderated by both iconicity and the heritage value of the city. The explained variance was high ( $R^2 = .663$ ) and supports hypothesis H(4). The findings which correspond to this model were generated by PROCESS and are presented in [Table 2](#). However, only one of the interactions between the independent variable (place attachment) and the moderators was found as significant when the coefficient of the interaction between place attachment and iconicity is  $B = -0.133$  and thus statistically different from zero ( $p < .05$ ). In this context it is important to note PROCESS tool also displays the proportion of the total variance in the outcome

**Table 1**  
Study's variables and F scores.

Item (a generic version, without indicating the name of the attraction and the name of the capital)	Helsinki Dome Mean (SD) (n = 88)	Helsinki zoo Mean (SD) (n = 87)	Tower of David – Jerusalem Mean (SD) (n = 107)	Jerusalem zoo Mean (SD) (n = 90)	Total (n = 372) Mean (SD)	F score
I enjoy visiting <attraction name> more than any other attraction in <capital name>	4.13 (1.249)	3.71 (1.247)	4.80 (1.145)	4.70 (1.243)	4.36 (1.291)	F (3,366) = 16.375**
For what I like to do during my trip to <capital name>, I could not imagine anything better than the experience provided by <attraction name>	3.94 (1.097)	3.97 (1.176)	4.29 (1.414)	4.73 (1.428)	4.24 (1.326)	F (3,366) = 7.056**
The <attraction name> contributed to my sense of belonging to <capital name>	4.03 (1.108)	4.00 (1.329)	4.75 (1.784)	4.30 (1.754)	4.29 (1.561)	F (3,366) = 4.952**
Visiting <attraction name> says a lot about who I am	4.26 (1.150)	4.03 (1.289)	3.62 (1.778)	4.13 (1.970)	3.99 (1.606)	F (3,364) = 2.980*
For attractions in <capital name> that I enjoy most, the <attraction name> provides the best experience	4.30 (1.116)	4.17 (1.278)	4.36 (1.388)	4.49 (1.391)	4.33 (1.303)	F (3,366) = 0.929
After visiting <attraction name> I feel that <capital name> means a lot to me	4.10 (1.223)	3.98 (1.478)	4.44 (1.661)	4.07 (1.812)	4.16 (1.569)	F (3,366) = 1.674
Visiting <capital name> says a lot about who I am	4.24 (1.356)	4.21 (1.424)	4.50 (1.829)	5.30 (1.905)	4.56 (1.704)	F (3,365) = 8.233
A place attachment scale – A mean score	4.143 (0.916)	4.010 (1.067)	4.397 (1.227)	4.523 (1.273)	4.277 (1.149)	F (3,368) = 3.820**
During the visit I felt related to the history of <capital name>	4.35 (0.995)	4.07 (1.328)	5.08 (1.584)	4.70 (2.008)	4.58 (1.571)	F (3,366) = 7.770**
The overall sight and impression of <attraction name> inspired me	4.24 (1.050)	4.23 (1.291)	5.17 (1.483)	5.53 (1.575)	4.81 (1.478)	F (3,367) = 20.838**
During the visit to <attraction name> I felt connected with the <wildlife/human history>	4.13 (1.133)	4.10 (1.211)	5.23 (1.477)	5.54 (1.567)	4.78 (1.503)	F (3,367) = 26.952**
I liked the way <attraction name> was designed	5.10 (0.983)	4.25 (1.323)	5.80 (1.222)	6.27 (1.191)	5.38 (1.400)	F (3,365) = 48.758**
I enjoyed the unique experience of <capital name>	4.91 (1.168)	4.54 (1.228)	6.02 (1.143)	6.35 (1.024)	5.49 (1.359)	F (3,364) = 51.823**
An authenticity scale – a mean score	4.545 (0.745)	4.239 (0.991)	5.460 (1.107)	5.679 (1.103)	5.010 (1.155)	F (3,367) = 44.744**

\*p < 0.05; \*\*p < 0.01.

**Table 2**

A model of a linear regression to perceived authenticity with a moderating effect.

Variable	Coefficient	SE	t	P
Constant	2.498	0.231	10.828	0.000
Heritage value (Helsinki vs. Jerusalem)	-1.202	0.283	-4.252	0.000
Place attachment	0.686	0.050	13.657	0.000
Interaction place attachment × heritage value	0.068	0.064	1.046	0.296
Iconicity	0.595	0.272	2.184	0.030
Interaction place attachment × iconicity	-0.133	0.061	-2.164	0.031

uniquely attributable to the interaction, as well as a test of significance (see Table 3). These results show that even though only one of the interactions was significant, their total effect was also significant (F(2,365) = 3.134, p < 0.05). This kind of situation, when the total effect of the interactions is significant while only one of the two interactions is significant is documented in the literature (for example – Hayes & Matthes, 2009). It supports the hypothesis regarding the moderating effect of both iconicity and heritage value H(4). Subsequently, the PROCESS tool enables to visualize the interaction, by producing the conditional effects of the independent variable at each of the two values of each moderators, along with a standard error, t, and p-value (Hayes, 2012). Table 4 shows that all these conditional effects are significant.

**5. Conclusions, limitations and further research**

The primary objective of this paper is to improve our knowledge of the understudied relationship between authenticity and place attachment in tourism and appeal of visitor attractions. It also examined the concept of iconicity in relation to authenticity of major visitor attractions. Given that perceived authenticity and iconicity are often more relevant to the heritage tourism context, the paper also questions the influence of heritage value of destination regions and iconicity on perceived authenticity of major visitor attractions. Hence it throws light on the understudied relationships between visitor attractions and their host destination region. It approaches visitor attractions from a cognitive perspective by measuring place attachment and perceived authenticity by international tourists, which has so far remained mainly theoretical (Brown, 2013; Molleda, 2010; Rickly Boyd, 2012). It particularly focused on place attachment as an antecedent of the tourism experience and on the tourists' seeking 'genuineness' in the context of perceived authenticity of major visitor attractions (Kolar & Zabkar, 2010).

The study used a cross sectional design, with four independent samples of tourists to major visitor attractions in Helsinki and

**Table 3**

The proportion of the total variance attributable to the interactions.

Interaction	R <sup>2</sup> changing	F	df1	df2	P
Place attachment × heritage value	.001	1.095	1	365	0.296
Interaction place attachment × iconicity	.004	4.681	1	365	0.031
Effect of both interactions	.006	3.134	2	365	0.045

**Table 4**

Conditional effects of the independent variable at each of the two values of each Moderators.

Iconicity	Heritage value	Effect of place attachment on authenticity	SE	t	P
Low – zoo	Low – Helsinki	.686	0.050	13.658	0.000
Low – zoo	High – Jerusalem	.754	0.058	13.076	0.000
High – Dome	Low – Helsinki	.553	0.049	11.393	0.000
High – Tower of David	High – Jerusalem	.621	0.063	9.916	0.000

Jerusalem. The analysis supported the existence of positive relationships between place attachment and perceived authenticity (H1) and shows that visitors attractions located in destinations of considerable “heritage experience value” are perceived as more authentic (H2) than those located in destinations with a lower value. This finding supports the assumption regarding a reverse spill-over effect from destination regions to their visitor attractions (Van Osselaer & Alba, 2000; Van Osselaer & Janiszewski, 2001) and in particular the spillover of heritage value (Heras et al., 2013; McDonald, 2011). Perceived authenticity of visitor attractions is influenced by place attachment and moderated by the heritage value of destination regions and iconicity of the attractions (H4). Place attachment was found particularly influential in low iconic visitor attractions. The study shows that visitor attractions contribute to the perceived authenticity of tourism destinations and also moderate the influence of place attachment on the perceived authenticity.

Hypothesis number 3, which tested if iconic visitor attractions are perceived as more authentic than other types of attractions, was not supported by the data. This could be explained by the lack of cues that have a factual and spatio-temporal links of the Tower of David (lack of indexical value) to the King of David and a lack of physical manifestation and stimulation of a dialog over Finnish history of Helsinki Dome. It is possible that both attractions have downplayed their marketing strategy in terms of creating a dialog with their potential customers over authenticity, which is determined by physical attributes (indexically) and brand essence (iconically), both affecting their iconicity (Grayson & Martinec, 2004).

The main theoretical contribution of this study derives from the empirically significant close relations that had been found between two theoretical constructs: authenticity and place attachment. While the former is based on sociological, managerial and philosophical grounds (Brown, 2013; Molleda, 2010; Rickly Boyd, 2012), the latter is environmental-psychological driven (Tsai, 2012). Consequently, the tourism domain in general and the visitor attractions context in particular, provide a common ground, which allows the two constructs to interact. The causal link between place attachment and authenticity, which is moderated by the characteristics of the attraction, provides an empirical support for the theoretical discussion about symbolic and objective authenticity in tourism. Part of the perceived authenticity is derived by subjective and psychological traits of the tourists, and thus is in line with the notion of symbolic authenticity (Wang, 1999). Yet, another part is influenced by the iconicity and the heritage value of the attraction, and as a result can be labeled as an example of objective authenticity (Barthel, 1996; Reisinger & Steiner, 2006).

Tourists' perceptions of attractions in terms of authenticity are partly dependent on where the attraction is located, i.e. the level of the destination heritage experience value. Implications for tourism marketing and development planning policies may include consideration for additional support such as financial incentives,

which should be provided to visitor attractions located in low heritage destinations in order to better link them to sources of authenticity. Example for these initiatives could include the attempt of Jerusalem zoo to display biblical animals whereby adding a sense of authenticity linked to the biblical ambience of the city (Jerusalem's Zoo Official Site, <http://www.jerusalemzoo.org.il/>). More generic actions applying to increased authenticity in different types of visitor attractions can include engaging signage, innovative interpretations to enliven attractions through uncovering stories in a unique and authentic way (Northern Ireland Tourism Board, 2010).

From a methodological perspective, the main contribution of the present work is related to the introduction of the PROCESS tool (Hayes, 2012) to tourism context. This technique is appropriate for testing relations of interaction between variables, when the SEM procedure has known limitations in these cases (Tomarken & Waller, 2005). Furthermore, Tomarken and Waller (2005) noted that regression analysis is more informative than SEM, because it provides general assessment such as  $R^2$ , but also individual-level features, which the SEM method does not report.

The conclusions presented have to be interpreted with some caution because of the limited scope and scale of this study. Four attractions in two capital cities were analyzed, and three theoretical concepts were scrutinized for their relationships. Authenticity, one of the main concepts analyzed in this study, had a tone of religion. There are other types of authenticity which might draw tourists to places and other approaches whereby this study could be repeated in different cities and different types of visitor attractions. Authenticity at cultural heritage sites is open to different interpretations in different cultural settings (Alberts & Hazen, 2010) and cross-cultural studies may ascertain the influence of place attachment across visitors of different cultures (Ramijksson et al., 2012). As a result, future studies may be conducted in other destinations, regarding different tourist attractions and address different constructs of authenticity and other aspects related to the relationships between visitor attractions to their host destination regions. Furthermore, future studies may also address socio-demographic variables such as age and gender, as well psychographic characteristics such as life style and attitudes and study the relation between these constructs to authenticity and place attachment.

Finally, the findings of the current study indicate close relations between authenticity and place attachment. This may suggest that these are not cause and effect, but two variables that are derived from a third, latent psychological construct. This possibility calls for a further investigation in terms of a new measurement model as well as of analysis of latent variables or factors. According to Brown (2012) this future investigation should be done only with regard to a solid theory or empirical evidence. Hence, the present work can be perceived as the first step in the development of such a measurement model and consequently could contribute even more to our understanding of how tourists and visitor experience places, and how the perception of places is shaped by deep psychological constructs.

## Appendix A. The process of developing the place attachment and the authenticity scales

Final decision	Source	Item (a generic version, without indicating the name of the attraction and the name of the capital)
Appears in the final version	Yuksel et al. (2010) Gross and Brown (2006)	I enjoy visiting <attraction name> more than any other attraction in <capital name>
Participants felt it is similar to items number 6 and 7	Yuksel et al. (2010)	After visiting the <attraction name> I feel that <capital name> is a part of me
Participants did not understand the meaning of the item	Gross and Brown (2006)	After visiting <attraction name> I have a strong connection with people who visit <capital name>
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	For what I like to do during my trip to <capital name>, I could not imagine anything better than the experience provided by <attraction name>
Participants felt that it is similar to items numbers 1 and 8	Gross and Brown (2006)	I wouldn't substitute any other place in <capital name> for the type of experience I have at <attraction name>

(continued)

Final decision	Source	Item (a generic version, without indicating the name of the attraction and the name of the capital)
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	The <attraction name> contributed to my sense of belonging to <capital name>
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	Visiting <attraction name> says a lot about who I am
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	For attractions in <capital name> that I enjoy most, the <attraction name> provides the best experience
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	After visiting <attraction name> I feel that <capital name> means a lot to me
Participants felt it is similar to items number 6 and 7	Gross and Brown (2006) Yuksel et al. (2010) Kyle et al. (2004)	The <attraction name> contributed to my identification with <capital name>
Participants felt it is similar to items number 1 and 8	Gross and Brown (2006) Gross and Brown (2006)	I get more satisfaction out of visiting the <attraction name> than any other attraction in <capital name>
Appears in the final version	Yuksel et al. (2010) Kyle et al. (2004)	Visiting <capital name> says a lot about who I am
Participants felt it is similar to items 1 and 8	Gross and Brown (2006)	Visiting <attraction name> is more important to me than visiting other attractions in <capital name>
Participants felt it is similar to items 6 and 7	Yuksel et al. (2010) Kyle et al. (2004) Gross and Brown (2006)	The <attraction name> contributed to my attachment to <capital name>

## Appendix B. Statistics of different versions of the questionnaire – in English, Swedish and Russian

Attraction	English	Swedish	Russian	T-test*/ANOVA** place attachment	T-test*/ANOVA** authenticity
Tower of David	N = 107	–	–	–	–
Jerusalem zoo	N = 74	–	N = 13	-1.270* (p > 0.05)	-1.138* (p > 0.05)
Helsinki Dome	N = 78	N = 1	N = 9	0.069** (P > 0.05)	1.347** (P > 0.05)
Helsinki zoo	N = 70	N = 10	N = 8	2.484** (p > 0.05)	2.764** (p > 0.05)

## Appendix C. Sample statistics

Attractions	Country of residence	Religion	Gender	Age	Education	Earning	Occupation	Trip type	Travel party
Tower of David	North America – 21	Judaism = 13	Women = 49	<34 = 26	<HS = 5	No earner = 7	Man. = 39	Leis. = 20	Partner = 20
	Russia – 1	Protestant = 21	Men = 56	35–54 = 39	HS = 9	One earner = 38	Adm. = 11	VFR = 4	Fam + ch = 4
	EU countries (including UK and Switzerland) – 55	Catholic = 33		55–65 = 25	<C = 5	Two earners = 34	Serv. = 15	Bus. = 2	Fam = 2
	Non EU – 24	Muslim = 0		>65 = 15	C = 35		Stud. = 4	Pilg. = 19	Friends = 19
	Did not answer – 6	Buddhism = 6			>C = 48		Other = 36	Other = 27	Org. group = 11
Israel zoo	North America – 37	Atheist = 1	Women = 46	<34 = 44	<HS = 2	No earner = 8	Man. = 31	Leis. = 18	Partner = 18
	Russia – 15	Other = 2	Men = 42	35–54 = 27	HS = 14	One earner = 35	Adm. = 13	VFR = 44	Fam + ch = 44
	EU countries (including UK and Switzerland) – 24	No resp. = 30		55–65 = 13	<C = 6	Two earners = 42	Serv. = 16	Bus. = 2	Fam = 2
	Non EU – countries – 4	Judaism = 56		>65 = 5	C = 16		Stud. = 6	Pilg. = 9	Friends = 9
	Did not answer – 8	Other = 3			>C = 50		Other = 16	Other = 7	Org. group = 4
Helsinki Dome	Nordic countries = 6	No resp. = 11	Women = 42	<34 = 41	<HS = 9	No earner = 10	Man. = 8	Leis. = 51	Partner = 21
	Baltic countries = 17	Judaism = 1	Men = 46	35–54 = 34	HS = 23	One earner = 43	Adm. = 11	VFR = 25	Fam + ch = 4
	Russia = 9	Protestant = 31		55–65 = 29	<C = 15	Two earners = 35	Serv. = 31	Bus. = 5	Fam = 12
	EU-countries = 33	Catholic = 18		>65 = 6	C = 29		Stud. = 22	Pilg. = 0	Friends = 21
	Non-EU countries = 23	Muslim = 4			>C = 12		Other = 10	Other = 7	Org. group = 9
Helsinki zoo	[representing 27 different countries]	Buddhism = 5							Alone = 17
	Nordic countries = 22	Atheist = 13	Women = 34	<34 = 52	<HS = 8	No earner = 13	Man. = 8	Leis. = 46	Partner = 16
	Baltic countries = 8	Other = 12	Men = 54	35–54 = 29	HS = 34	One earner = 48	Adm. = 9	VFR = 16	Fam + ch = 15
	Russia = 8	No resp. = 3		55–65 = 7	<C = 24	Two earners = 27	Serv. = 30	Bus. = 11	Fam = 12
	EU-countries = 27	Judaism = 1		>65 = 0	C = 13		Stud. = 31	Pilg. = 0	Friends = 22
Non-EU countries = 23	Protestant = 16			>C = 9		Other = 10	Other = 14	Org. group = 9	
[representing 33 different countries]	Catholic = 35							Alone = 13	
	Muslim = 4							Other = 1	
	Buddhism = 10								
	Atheist = 10								
	Other = 7								
	No resp. = 5								

Education: <HS = Less than high school graduate, HS = High school graduate, <C = Less than college graduate, C = College graduate, >C = Above college graduate.

Occupation: Man. = Managerial/professional, Adm. = Technical/administrative/sales/operational/craft, Serv. = Service/self-employed, Stud. = Student.

Trip type: Leis. = Leisure trip/Vacation, VFR-visiting friends and relatives, Bus. = Business trip, Pil. = Pilgrimage.

Travel party: Partner = A spouse/partner, Fam.+ ch = Family with children, Fam. = Family without children, Org. group = Tour/organized group.



**Appendix D. Assessment of the measurement model (by using a PLS-SEM analysis)**

Latent variables	Indicators	Loading	Composite reliability (CR)	Average Variance Extracted (AVE)
Place attachment	I enjoy visiting <attraction name> more than any other attraction in <capital name>	0.780	0.914	0.603
	For what I like to do during my trip to <capital name>, I could not imagine anything better than the experience provided by <attraction name>	0.829		
	The <attraction name> contributed to my sense of belonging to <capital name>	0.708		
	Visiting <attraction name> says a lot about who I am	0.815		
	For attractions in <capital name> that I enjoy most, the <attraction name> provides the best experience	0.837		
	After visiting <attraction name> I feel that <capital name> means a lot to me	0.775		
Authenticity	Visiting <capital name> says a lot about who I am	0.679	0.891	0.621
	During the visit I felt related to the history of <capital name>	0.763		
	During the visit I felt related to the history of <capital name>	0.849		
	During the visit to <attraction name> I felt connected with the <wildlife/human history>	0.840		
	I liked the way <attraction name> was designed	0.757		
	I liked the way <attraction name> was designed	0.725		

Reliability and validity measures.

Cross loadings:

Indicators	Place attachment	Authenticity
I enjoy visiting <attraction name> more than any other attraction in <capital name>	0.780	0.578
For what I like to do during my trip to <capital name>, I could not imagine anything better than the experience provided by <attraction name>	0.829	0.588
The <attraction name> contributed to my sense of belonging to <capital name>	0.708	0.545
Visiting <attraction name> says a lot about who I am	0.815	0.589
For attractions in <capital name> that I enjoy most, the <attraction name> provides the best experience	0.837	0.572
After visiting <attraction name> I feel that <capital name> means a lot to me	0.775	0.468
Visiting <capital name> says a lot about who I am	0.679	0.568
During the visit I felt related to the history of <capital name>	0.657	0.763
During the visit I felt related to the history of <capital name>	0.621	0.849
During the visit to <attraction name> I felt connected with the <wildlife/human history>	0.596	0.840
I liked the way <attraction name> was designed	0.495	0.757
I liked the way <attraction name> was designed	0.429	0.725

Fornell–Larcker Criterion Analysis for Checking Discriminant Validity:

	Place attachment	Authenticity
Place attachment	0.777	
Authenticity	0.723	0.788

**Appendix E. Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
I enjoy visiting <attraction name> more than any other attraction in <capital name>	370	1	7	4.36	1.291	-.016	.127
For what I like to do during my trip to <capital name>, I could not imagine anything better than the experience provided by <attraction name>	370	1	7	4.24	1.326	-.242	.127
The <attraction name> contributed to my sense of belonging to <capital name>	370	1	7	4.29	1.561	-.210	.127
Visiting <attraction name> says a lot about who I am	368	1	7	3.99	1.606	-.153	.127
For attractions in <capital name> that I enjoy most, the <attraction name> provides the best experience	370	1	7	4.33	1.303	-.258	.127
After visiting <attraction name> I feel that <capital name> means a lot to me	370	1	7	4.16	1.569	-.152	.127
Visiting <capital name> says a lot about who I am	369	1	7	4.56	1.704	-.327	.127
During the visit I felt related to the history of <capital name>	370	1	7	4.58	1.571	-.322	.127
During the visit I felt related to the history of <capital name>	371	1	7	4.81	1.478	-.363	.127
During the visit to <attraction name> I felt connected with the <wildlife/human history>	371	1	7	4.78	1.503	-.330	.127
I liked the way <attraction name> was designed	369	1	7	5.38	1.400	-.859	.127
I liked the way <attraction name> was designed	368	1	7	5.49	1.359	-.695	.127
Place Attachment	372	1.43	7.00	4.2769	1.14873	-.095	.126
Authenticity	371	1.60	7.00	5.0092	1.15519	-.263	.127
Valid N (listwise)	329						

Dear tourist,

We would appreciate it if you could spare a few minutes to participate in an international study that addresses the links between travel preferences and personal attitudes. We guarantee that your answers will remain confidential and will be used for academic purposes only. Please note that your answers should reflect your own personal opinion. Please circle the answer which best describes your opinion. Thank you for your help, the Research Team

Part 1 – Visiting Jerusalem and Jerusalem Zoo

Please respond to each statement by indicating how much you agree or disagree with it, using the scale ranging from 1 – "not at all" to 7 – "very much".

		Not at all			Very much			
1	I enjoy visiting Jerusalem Zoo more than any other attractions in Jerusalem	1	2	3	4	5	6	7
2	For what I like to do during my trip to Jerusalem, I could not imagine any better place than the experience provided by Jerusalem Zoo	1	2	3	4	5	6	7
3	The Zoo contributed to my sense of belonging to Jerusalem	1	2	3	4	5	6	7
4	Visiting Jerusalem Zoo says a lot about who I am	1	2	3	4	5	6	7
5	For attractions in Jerusalem that I enjoy most, the Zoo provides the best experience	1	2	3	4	5	6	7
6	After visiting the Zoo I feel that Jerusalem means a lot to me	1	2	3	4	5	6	7
7	Visiting Jerusalem says a lot about who I am	1	2	3	4	5	6	7
8	During the visit I felt related to the history of Jerusalem	1	2	3	4	5	6	7
9	The overall sight and impression of Jerusalem Zoo inspired me	1	2	3	4	5	6	7
10	During the visit to Jerusalem Zoo I felt connected with the Israeli wildlife	1	2	3	4	5	6	7
11	I liked the way Jerusalem Zoo was designed	1	2	3	4	5	6	7
12	I enjoyed the unique experience of Jerusalem	1	2	3	4	5	6	7

How many days will you be staying in Israel? \_\_\_\_\_ (Please state number of days)

How many days will you be staying in Jerusalem? \_\_\_\_\_ (Please state number of days)

Please report which day of your visit in Jerusalem is the current day? (the 1<sup>st</sup> day, 2<sup>nd</sup> day, 3<sup>rd</sup> day, etc...) \_\_\_\_\_ (Please state number of the current day)

How many times did you visit Jerusalem before the current visit ? \_\_\_\_\_ (Please state the number of past visits)

Please mention your travel party composition

1. A spouse/ partner    2. Family with children    3. Family without children    4. Friends  
 5. Tour/ organized group    6. Traveling alone    7. Other, specify \_\_\_\_\_

Please mention your type of trip

1. Leisure trip/ vacation    3. Business trip  
 2. Visiting friends and relatives    4. Pilgrimage    5. Other, specify \_\_\_\_\_

**Part 2 – General information and personal attitudes**

Please state your country of residence \_\_\_\_\_  
 If your country of residence is different than your country of origin, please state your country of origin \_\_\_\_\_

Please state your religious affiliation

1. Judaism	2. Protestant – Christian	3. Catholic – Christian	4. Muslim	5. Buddhism	6. Atheist	7. Other, specify _____	8. I prefer not to respond
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How much you agree or disagree with the statement "I Enjoy spending my leisure time observing animals"?

Not at all	1	2	3	4	5	6	7	Very much
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How much you agree or disagree with the statement "I Enjoy watching TV documentaries about Wildlife"?

Not at all	1	2	3	4	5	6	7	Very much
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Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

		Not at all					Very much	
1	Extraverted, enthusiastic	1	2	3	4	5	6	7
2	Critical, quarrelsome	1	2	3	4	5	6	7
3	Dependable, self-disciplined	1	2	3	4	5	6	7
4	Anxious, easily upset	1	2	3	4	5	6	7
5	Open to new experiences, complex	1	2	3	4	5	6	7
6	Reserved, quiet	1	2	3	4	5	6	7
7	Sympathetic, warm	1	2	3	4	5	6	7
8	Disorganized, careless	1	2	3	4	5	6	7
9	Calm, emotionally stable	1	2	3	4	5	6	7
10	Conventional, uncreative	1	2	3	4	5	6	7

- Please mention your gender
- |           |         |
|-----------|---------|
| 1. Female | 2. Male |
|-----------|---------|
- Please mention your level of education
- |                                   |                               |
|-----------------------------------|-------------------------------|
| 1. Less than high school graduate | 3. Less than college graduate |
| 2. High school graduate           | 4. College graduate           |
|                                   | 5. above college graduate     |
- Please mention your age group
- |                   |                  |
|-------------------|------------------|
| 1. 34 and younger | 3. 55-65         |
| 2. 35-54          | 4. Older than 66 |
- Please mention what is your household earning composition
- |                |                  |                |
|----------------|------------------|----------------|
| 1. No earners. | 2. Single earner | 3. Two earners |
|----------------|------------------|----------------|
- Please mention your occupation
- |                            |   |
|----------------------------|---|
| 1. Managerial/professional | 2. Technical/administrative /sales /operational/craft |
| 3. Service/self-employed   |   |

Thank you for your cooperation!

**References**

Aaker, D. (1996). *Building Strong brands*. New York: The Free Press.

Ainsworth, M. D. (1985). Attachments across the life span. *Bulletin of the New York Academy of Medicine*, 61(9), 792.

Alberts, H. C., & Hazen, H. D. (2010). Maintaining authenticity and integrity at cultural world heritage sites. *Geographical Review*, 100, 56–73.

Ashworth, G. (2009). The instruments of place branding: how is it done? *European Spatial Research and Policy*, 16(1), 9–22.

Ayeh, J. K., Au, N., & Law, R. (2013). "Do we believe in TripAdvisor?" Examining credibility perceptions and online travelers' attitude toward using user-generated content. *Journal of Travel Research*, 0047287512475217.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.

Barthel, D. (1996). *Historic preservation: Collective memory and historic identity*. New Brunswick: Rutgers University Press.

Belhassen, Y., Caton, K., & Stewart, W. P. (2008). The search for authenticity in the pilgrim experience. *Annals of Tourism Research*, 35(3), 668–689.

Bowlby, J. (1969). Attachment and loss. In *Attachment* (vol. 1). New York: Basic Books.

Bowlby, J. (1973). Attachment and loss. In *Separation: Anxiety and anger* (vol. 2). New York: Basic Books.

Bowlby, J. (1980). Attachment and loss. In *Sadness and depression* (vol. 3). New York: Basic Books.

Brown, D. (2003). Perception differences among visitor groups: the case of horse-attraction versus other-attraction tourist markets in Lexington, Kentucky. *Journal of Vacation Marketing*, 9(2), 174–187.

Brown, T. A. (2012). *Confirmatory factor analysis for applied research*. Guilford Press.

Brown, L. (2013). Tourism: a catalyst for existential authenticity. *Annals of Tourism Research*, 40(1), 176–190.

Budruk, M., White, D. D., Wodrich, J. A., & Van Riper, C. J. (2008). Connecting visitors to people and place: Visitors' perceptions of authenticity at Canyon de Chelly

- National Monument, Arizona. *Journal of Heritage Tourism*, 3(3), 185–202.
- Calver, S., & Page, S. (2013). Enlightened hedonism: exploring the relationship of service value, visitor knowledge and interest, to visitor enjoyment at heritage attractions. *Tourism Management*, 39, 23–36.
- Chhabra, D. (2008). Positioning museums on an authenticity continuum. *Annals of Tourism Research*, 35(2), 427–447.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, J. (1977). In *Statistical power analysis for behavioral sciences*. New York: Academic Press.
- Dichter, E. (1962). The world consumer. *Harvard Business Review*, 40(4), 113–122.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 39–50.
- Grayson, K., & Martinec, R. (2004). Consumer perceptions of iconicity and indexicality and their influence on assessments of authentic market offerings. *Journal of Consumer Research*, 31(2), 296–312.
- Grodach, C. (2008). Looking beyond image and tourism: the role of flagship cultural projects in local arts development. *Planning Practice & Research*, 23(4), 495–516.
- Grodach, C. (2010). Beyond Bilbao: rethinking flagship cultural development and planning in three California cities. *Journal of Planning Education and Research*, 29(3), 353–366.
- Gross, M., & Brown, G. (2006). Tourist experience in a lifestyle destination setting: the roles of involvement and place attachment. *Journal of Business Research*, 59(6), 696–700.
- Gross, M., & Brown, G. (2008). An empirical structural model of tourists and places: progressing involvement and place attachment into tourism. *Tourism Management*, 29(6), 1141–1151.
- Hargrove, C. (2002). Heritage tourism. *CRM Magazine*, 25(1), 10–11.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>.
- Hayes, A. F., & Matthes, J. (2009). Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior Research Methods*, 41(3), 924–936.
- Helsinki Zoo's Official Site. Retrieved on August 9th 2014. <http://www.korkeasaari.fi/helsinki-zoo/>.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., et al. (2014). Common beliefs and reality about PLS comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 1094428114526928.
- Helsinki's Official Travel Site. Retrieved on August 9th 2014. <http://www.visithelsinki.fi>.
- Heras, V., Wijffels, A., Cardoso, F., Vandesande, A., Santana, M., Orshoven, J., et al. (2013). A value-based monitoring system to support heritage conservation planning. *Journal of Cultural Heritage Management and Sustainable Development*, 3(2), 130–147.
- Hidalgo, C., & Hernandez, B. (2001). Place attachment: conceptual and empirical questions. *Journal of Environmental Psychology*, 21(3), 273–281.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.
- Hwang, S., Lee, C., & Chen, H. (2005). The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's national parks. *Tourism Management*, 26(2), 143–156.
- Iversen, N., & Hem, L. (2011). Reciprocal transfer effects for bran extensions of global or local origin: evidence from Norway. *International Marketing Review*, 28(4), 365–411.
- Jerusalem Foundation. (2013). *The Tisch family zoological gardens annual report 2013*. <http://www.jerusalemfoundation.org/media/16532/Zoo-Report-2013.pdf> accessed 23/11/2014.
- Jerusalem's Official Travel Site | iTravelJerusalem (1 travel Jerusalem). Retrieved on August 9th 2014. <http://www.itraveljerusalem.com>.
- Jerusalem's Zoo Official Site. Retrieved on August 9th 2014. <http://www.jerusalemzoo.org.il/>
- Kalavar, J., Buzinde, C., Melubo, K., & Simon, J. (2014). Intergenerational differences in perceptions of heritage tourism, among the Maasai of Tanzania. *Journal of Cross Cultural Gerontology*, 29(1), 53–67.
- Kianicka, S., Buchecker, M., Hunziker, M., & Müller-Böker, U. (2006). Locals' and tourists' sense of place: a case study of a Swiss Alpine Village. *Mountain Research and Development*, 26(1), 55–63.
- Kolar, T., & Zabkar, V. (2010). A consumer-based model of authenticity: an oxymoron or the foundation of cultural heritage marketing? *Tourism Management*, 31(5), 652–664.
- Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2003). An examination of the relationship between leisure activity involvement and place attachment among hikers along the Appalachian Trail. *Journal of Leisure Research*, 35(3), 249–273.
- Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2004). Effects of place attachment on users' perceptions of social and environmental conditions in a natural setting. *Journal of Environmental Psychology*, 24(2), 213–225.
- Law, C. M. (2002). *Urban tourism: The visitor economy and the growth of large cities* (2nd ed.). London: Continuum.
- Lee, T., & Shen, Y. (2013). The influence of leisure involvement and place attachment on destination loyalty: evidence from recreationists walking their dogs in urban parks. *Journal of Environmental Psychology*, 33(1), 76–85.
- Long, L. (2004). Culinary tourism and the emergence of an Appalachian Cousine: exploring the "Foodscape" of Asheville, NC. *North Carolina Folklore Journal*, 57(1), 4–20.
- MacCannell, D. (1973). Staged authenticity: arrangements of social space in tourist settings. *American Journal of Sociology*, 589–603.
- McDonald, H. (2011). Understanding the antecedents to public interest and engagement with heritage. *European Journal of Marketing*, 45(5), 780–804.
- Miles, S. (2005). 'Our tyne': iconic regeneration and the revitalisation of identity in Newcastle Gateshead. *Urban Studies*, 42(5/6), 913–926.
- Molleda, J. C. (2010). Authenticity and the construct's dimensions in public relations and communication research. *Journal of Communication Management*, 14(3), 223–236.
- Neisser, U. (1976). *Cognition and reality, principles and implications of cognitive psychology*. San Francisco: Freeman and Company.
- Northern Ireland Tourism Board. (2010). *Northern Ireland visitor inspired, Northern Ireland, creating the 'Authentic NI' experience, insight series*. Retrieved on July 13th, 2014 [www.nitb.com/FileHandler.ashx?id=957](http://www.nitb.com/FileHandler.ashx?id=957).
- Pine, B. J., & Gilmore, J. H. (2008). The eight principles of strategic authenticity. *Strategy & Leadership*, 36(3), 35–40.
- Plaza, B. (2000). Evaluating the influence of large cultural artifact in the attraction of tourism. *Urban Affairs Review*, 36(2), 264–274.
- Plaza, B. (2008). On some challenges and conditions for the Guggenheim Museum Bilbao to be an effective economic re-activator. *International Journal of Urban and Regional Research*, 32(2), 506–517.
- Poria, Y., Butler, R., & Airey, D. (2003). The core of heritage tourism. *Annals of Tourism Research*, 30(1), 238–254.
- Prayag, G., & Ryan, C. (2012). Antecedents of tourists' loyalty to Mauritius: the role and influence of destination image, place attachment, personal involvement, and satisfaction. *Journal of Travel Research*, 51(3), 342–356.
- Ramkinsson, H., Weiler, B., & Smith, G. (2012). Place attachment and pro-environmental behavior in national parks: the development of a conceptual framework. *Journal of Sustainable Tourism*, 20(2), 257–276.
- Reisinger, Y., & Steiner, C. (2006). Reconceptualizing object authenticity. *Annals of Tourism Research*, 33(1), 65–86.
- Rickly Boyd, J. (2012). Authenticity & Aura: a Benjaminian approach to tourism. *Annals of Tourism research*, 30(1), 269–289.
- Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS3. Boenningstedt: SmartPLS GmbH. <http://www.smartpls.com>.
- Sklair, L. (2010). Iconic architecture and the culture-ideology of consumerism. *Theory, Culture & Society*, 27(5), 135–159.
- Tomarken, A. J., & Waller, N. G. (2005). Structural equation modeling: strengths, limitations, and misconceptions. *Annual Review of Clinical Psychology*, 1, 31–65.
- Tsai, S. P. (2012). Place attachment and tourism marketing: investigating international tourists in Singapore. *International Journal of Tourism Research*, 14(2), 139–152.
- Tussyadiah, I. P., & Zach, F. J. (2012). The role of geo-based technology in place experiences. *Annals of Tourism Research*, 39(2), 780–800.
- Van Osselaer, S., & Alba, J. (2000). Consumer learning and brand equity. *Journal of Consumer Research*, 27(1), 1–16.
- Van Osselaer, S., & Janiszewski, C. (2001). Two ways of learning brand associations. *Journal of Consumer Research*, 28(2), 202–223.
- Vinzi, V. E., Trinchera, L., & Amato, S. (2010). *Handbook of partial least squares*. Springer: Berlin-Heidelberg.
- VisitHelsinki. (2013). *Review of Helsinki's travel year 2013* accessed 23/11/2014 [http://www.visithelsinki.fi/sites/visithelsinki.fi/files/files/Tilastot/EN/helsinginmatkailuntilastoraportti2013\\_eng.pdf](http://www.visithelsinki.fi/sites/visithelsinki.fi/files/files/Tilastot/EN/helsinginmatkailuntilastoraportti2013_eng.pdf).
- Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of tourism research*, 26(2), 349–370.
- Weidenfeld, A. (2010). Iconicity and 'flagshipness' of tourist attractions. *Annals of Tourism Research*, 37(3), 851–854.
- Wong, K. K. K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1–32.
- Yankholmes, A., & Akyeampong, O. (2010). Tourists' perception of heritage tourism development in Danish-Osu, Ghana. *International Journal of Tourism Research*, 12(5), 603–616.
- Yuksel, A., Yuksel, F., & Bilim, Y. (2010). Destination Attachment: effects on customer satisfaction and cognitive, affective and conative loyalty. *Tourism Management*, 31(2), 274–284.



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