

Article

Visitors' Experience, Place Attachment and Sustainable Behaviour at Cultural Heritage Sites: A Conceptual Framework

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Abstract: Sustainable tourism research has attracted wide interest from scholars and practitioners. While several heritage sites are mandated to provide optimum visitor satisfaction with increasing competition in the market, managers of heritage sites face growing challenges in striking a balance between consumption and conservation. This calls for promoting more sustainable behaviours among consumers of heritage. This study proposes a conceptualization of sustainable behaviour for heritage consumers. Using the attitude–behaviour relationship underpinned by the Theory of Reasoned Action, it develops and proposes a conceptual framework that integrates visitors' heritage experiences, their attachment to heritage sites, and their general and site-specific sustainable heritage behaviour and presents their interrelationships as proposed hypotheses. Theoretical contributions and practical implications for heritage site managers are discussed.

Keywords: sustainable heritage behaviour; heritage experience; place attachment; general behaviour; site-specific behaviour

1. Introduction

The topic of sustainability has been attracting an increasing attention in tourism as one of the largest industries in the world to significantly contribute to sustainable development of territories [1]. Several studies have focused especially on problems that different types of tourism and leisure activities can cause to a destination (e.g., [2,3]) and on the role of visitor behaviour [4] in influencing the tourism experience [5,6]. One of the greatest challenges for sustainable tourism development is to encourage tourists to act in ways that minimize environmental and experiential impacts. As Cox [7], underlines, new issues and problems related to the environment have called for a major involvement of local communities in directly taking actions for protecting the natural environment. As a result, individuals feel responsible for decisions about pollution or energy use, start managing their wastes, and get involved in clean-up efforts. They have increasingly adopted these sustainable behaviours, both when at home and during their travels. Accordingly, abundant research focuses on the environmental behaviour of tourists, investigating factors influencing their attitudes, how they are engaged in protecting the natural environment at destinations, and strategies to educate them on environmental concerns [8–12]. The adoption of sustainable behaviours by tourists is also particularly relevant in heritage tourism. Heritage sites are often fragile, with distinctive, authentic features providing mindful and engaging experiences to visitors [13,14]. Increased visitation at cultural and historic sites

may generate negative effects calling for a balance among visitation, authenticity and conservation. Accordingly, various management actions have been proposed to mitigate impacts [15] and promote more responsible behaviours [16–18] among consumers of heritage. Visitors' understanding and appreciation of heritage deriving from their experience at heritage sites can result in heightened support for preservation of the heritage resources [19,20], with a range of implications for sustainable tourism development. This implies that experience is a pivotal concept for understanding many facets of heritage tourism, including ways in which visitors can preserve, protect and enhance cultural heritage sites [19,21]. Moreover, the literature suggests that experiences of tourists play a key role in influencing their attachment to the visited place, their pro-environmental behaviour [9,22–24], and their future behaviour [25]. Studies on heritage tourism however fall short in sufficiently considering tourists' experience and involvement in relation to the sustainable management process [15,26]. Some studies shed light on the strategies to support the sustainable behaviour of visitors [27,28]. Those few exceptions are however fragmented and related to different strands of literature. While visitors' sustainable behaviour in heritage tourism consumption is of paramount importance, the complexities involved are yet to be disentangled. This calls for more research to better understand the relationship between the visitor and the place visited, and its influence on the sustainable consumption of heritage resources. Insights into visitors' experience and behaviour at heritage sites are necessary, since tourism experiences may play an important role in fostering the adoption of sustainable practices [22–24,29].

Notwithstanding the notable development of sustainable heritage tourism research in the recent past, the majority of studies focuses on the different aspects associated with the supply and management of resources, while less attention has been devoted to the demand side of heritage tourism [29–31]. In an attempt to bridge this gap in the literature, this study addresses sustainable behaviour of heritage visitors examining its nature and antecedents. Drawing from the literature in tourism and environmental psychology, a conceptualization of sustainable behaviour in the specific context of heritage tourism is proposed to understand the general and site-specific dimensions of sustainable behaviour of visitors at heritage sites. The present study develops and proposes a conceptual framework to examine how visitors' heritage experiences influence their attachment to heritage sites and its likely influence on their sustainable behaviour. It extends the theoretical interrelationships between visitors' experience, place attachment and general and site-specific sustainable visitor behaviour using the attitude–behaviour relationship underpinned by Fishbein and Ajzen [32] Theory of Reasoned Action. An attitude is defined as an individual's disposition to reveal certain responses towards a concept or an object [33]. Visitor experience is considered in this study within an attitudinal framework. In addition, consistent with theories of attitude, Ramkissoon et al. [23] argue that place attachment is strongly based on cognitive, affective and conative attributes of a place, and is thus considered as an attitude. The proposed framework contributes to advancing theory and practice for sustainable heritage management. From a theoretical perspective, it contributes to the literature by deepening the understanding of visitors' experience and behaviour at heritage sites and their role in the adoption of sustainable practices. It provides a range of implications for managers of heritage sites.

2. Theoretical Basis

2.1. Sustainable Behaviour of Heritage Visitors

The role of individuals in actively protecting the environment through adoption of responsible behaviours is crucial. Scholars have used several terms to refer to individuals' behaviour aimed at protecting the environment [17,34]. In the 1990s, Hungerford and Volk [35] referred to the concept of Environmentally Responsible Behaviour to indicate actions motivated by the desire to interact with the environment in more responsible ways. Environmentally Concerned Behaviour [36] requires a strong engagement of individuals in environmental protection efforts, involving the individuals' feelings about several green issues [37,38], such as saving scarce natural resources from being used, paying

attention to the environmental consequences of the products purchased, paying higher prices for products which pollute the environment [39]. Environmentally Significant Behaviour refers to changes in the individual's behaviour aimed at improving the environment [40] (cited by [17]). A similar concept is associated with Pro-Environmental Behaviour, considered as a behaviour exhibited by individuals who engage in actions to protect the environment and minimize any negative human influence on the natural and built world [40–43]. A crucial role is assumed by the individual's sensibility for environmental issues and by the ability to emphasize with nature.

The ability to make more environmentally-friendly choices considering future consequences of actions is at the basis of Sustainable Behaviour. Considering that people who are more aware of future consequences are more likely to make sustainable choices, sustainable behaviour is defined as a behaviour by individuals who act with more sustainable considerations [44]. Starting from the study by Lee et al. [17], the different terms, definitions and key concepts associated with a more sustainable behaviour by individuals are summarized in Table 1.

Table 1. Definitions and key concepts of responsible behaviour related to the environment.

Terms	Definitions	Key Concepts	References
Environmentally Responsible Behaviour	Actions motivated by the desire to interact with the environment in more responsible ways. Actions aimed at supporting a more sustainable use of natural resources, at mitigating a negative environmental impact of home and tourism activities, and at contributing to environmental preservation and/or conservation efforts.	Interaction	[17,35,45]
Environmentally Concerned Behaviour	The positive attitudes aimed at preserving the environment, also through indirect effects.	Commitment	[36–39,46]
Environmentally Significant Behaviour	Changes in the individual's behaviour aimed at improving the environment.	Changes	[40]
Pro-environmental Behaviour	Behaviour exhibited by individuals who engage in actions to protect the environment and minimize any negative impact on the natural and built world.	Engagement Emphasis with nature	[40–43]
Sustainable Behaviour	A behaviour by individuals who act with more sustainable considerations.	Awareness	[44]

Even though the terms examined are often used interchangeably, each of them presents specific distinguishing elements. Environmentally Responsible Behaviour, in fact, is more focused on the environmental behaviour generated by the interaction between the individual and the natural resources. Environmentally Concerned Behaviour focuses more on the commitment of individuals towards environmental actions. Environmentally Significant Behaviour highlights the changes in the behaviour of individuals who decide to take more sustainable actions and decisions. Pro-environmental Behaviour is more focused on the engagement and emotional link between individuals and the natural environment. Finally, Sustainable Behaviour is more related to a major awareness about the importance to behave in a more sustainable way.

Several studies in the tourism literature have been devoted to promoting sustainable tourist behaviour [17]. Tourists who adopt an environmentally responsible behaviour are aimed at supporting a more sustainable use of natural resources, aim at mitigating negative environmental impacts of their home and tourism activities, and contribute to environmental preservation efforts [17,45]. Visitors' sustainable behaviour is defined as their intentions to perform or not perform a specific behaviour directed to preserve the environment [47]. Similarly, sustainable behaviours at heritage sites could be related to the awareness of visitors about the historical and natural importance of cultural heritage, their commitment to contribute to heritage conservation efforts, and their actions undertaken to protect cultural heritage for the present and future generations.

Starting from a unidimensional conceptualization of ecological behaviour [48], researchers have argued that "sustainable behaviour" is a multi-dimensional construct. Smith-Sebasto and D'costa [49] scale is composed of 28 items and six constructs to predict environmentally responsible behaviour of undergraduate students. Tourists' pro-environmental behaviour scale developed by Lee et al. [17]

reflects civic, educational, financial, legal, physical, and persuasive actions. Civic actions group any action that is not dependent on monetary exchange or persuasive strategies aimed at promoting protection of the environment through political ways. Civic actions are considered as willingness to pay more taxes in order to protect the environment [17,39], the vote of candidates with pro-environmental policies [1,50], signing petitions and letters to government officials about the environment [1,39], or willingness to donate time or money for pro-environmental purposes [17,50]. Educational actions are those actions specifically aimed at acquiring knowledge and information about environmental issues [49]. Reading publications or watching TV programs about the environment, attending academic meetings about the sustainability, or learning how to solve environmental issues are examples of educational actions [1,50,51]. Financial actions are strictly related to exchange of moneys or withholding of exchange for promoting conservation of the natural environment. These include purchasing or boycotting firms based on their attention to environmental sustainability (refillable packaging, energy efficiency, low environmental impact, local foods, green products, etc.) [1,16,17,39,50]. Legal actions are judiciary actions aimed at enforcing environmental laws or at limiting undesirable negative behaviours vis-à-vis the environment [49].

Physical actions are those aimed at supporting the environment without considering money exchange as a primary tool. For example, physical actions are personal sacrifices one undertakes for the sake of slowing down pollution even though the immediate results may not seem relevant, recycling products, or having eco-friendly initiatives [1,17,39,41,51]. Finally, persuasive actions are nonmonetary actions aimed at motivating other people to behave in a manner that promotes preservation of the natural environment. Talking to family and peers about environmental issues, convincing them to act in a sustainable way, and promoting environmental protection are persuasive actions [17,50,51].

Other classifications of pro-environmental actions can be related to the six actions by Smith-Sebasto and D'costa [49]. For instance, Stern et al. [52] introduced environmental citizenship referring to political activities, e.g., writing letters to political officials. Lee [50] introduced green consumerism to describe financial actions. Lee et al. [17] presented a new classification of environmental behaviour, which takes into account the strong relationship between general sustainable actions taken by individuals in their daily lives at home, and site-specific sustainable actions undertaken by tourists at experiential sites. Several scholars argue that site-specific sustainable behaviour positively affects general sustainable behaviour (e.g., [23,51,53]). Lee et al. [17] adopt civic, financial, physical, and persuasive actions to represent general environmental responsible behaviour, and three dimensions to represent site-specific environmental responsible behaviour: sustainable behaviours of tourists for specific destinations, pro-environmental behaviour, and environmentally friendly behaviour.

Sustainable behaviour of tourists at specific destinations includes sustainable actions to respect the culture and environment of a specific destination, such as appreciating the traditions and cultures of local communities, improving the welfare of residents, protecting the local environment, and reducing interference with the local environment. Pro-environmental behaviour includes actions aimed at protecting the local environment and at facing environmental issues, such as giving time or money to site-specific best practices, or voluntarily visiting a destination less frequently or not at all when the area is recovering from environmental damage [53–55]. Environmentally friendly behaviour is related to personal attributes, environmental knowledge, and perception of environmental health. They are specific actions undertaken to reduce or help to recover the damage caused at a specific destination.

The scale to assess the tourists' general and specific-site environmentally responsible behaviour developed by Lee et al. [17] is a valid research instrument in the context of community-based tourism. In spite of the proliferation of studies investigating the tourist's behaviour, few have dwelled both into the general and site-specific dimensions of sustainable behaviour of heritage visitors. This would allow a more holistic approach. General and site-specific dimensions of heritage visitors' sustainable behaviour are identified based on previous studies (Table 2).

Table 2. Conceptualizing heritage visitors' sustainable behaviour: general and site-specific dimensions.

CONCEPT	Dimensions	References
General Behavior	<i>Civil actions</i>	
	<ul style="list-style-type: none"> • Willingness to pay more taxes in order to protect cultural heritage. • Signing petitions to support cultural heritage protection. • Writing letters to government officials about the heritage degradation. • Voting for elected officials with specific policies for heritage protection. • Donation of time to support and enhance cultural heritage sites. 	Adapted from [1,17,39,50]
	<i>Educational actions</i>	
	<ul style="list-style-type: none"> • Reading publications, watching programs, and attending meetings and seminars about heritage issues. 	Adapted from [1,50,51]
	<i>Financial actions</i>	
	<ul style="list-style-type: none"> • Donation of money to protect and enhance cultural heritage sites. • Decisions of (not) buying products from companies that have (negative) positive impacts on cultural heritage sites or on history, traditions and identity of communities. 	Adapted from [1,16,17,27,39,50]
	<i>Persuasive actions</i>	
	<ul style="list-style-type: none"> • Talking with friends and relatives about the issues related to cultural heritage protection. • Trying to convince others to act responsibly at heritage sites and adopting sustainable decisions related to heritage. 	Adapted from [17,39,50]
	<i>Legal actions</i>	
	<ul style="list-style-type: none"> • Judiciary actions aimed at enforcing laws on cultural heritage or on limiting negative behaviors related to it. 	Adapted from [17,50]
Site-specific Behavior	<ul style="list-style-type: none"> • Adopting a work of art. • Engaging in voluntary works at a specific heritage site (light maintenance, cleaning, surveillance, visit tours). • Giving money for protection of a heritage site. • Limiting visits (at the specific heritage site) for preservation purposes. • Respecting local culture and traditions of local community. 	Adapted from [17,27,28]

Civil, educational, financial, physical, persuasive, and legal actions may be adopted by researchers investigating environmental behaviour, and applied to the specific context of cultural heritage. General civil actions may represent engagement in sustainable behaviours, e.g., willingness to pay more taxes in order to protect cultural heritage, signing petitions to support cultural heritage protection, writing letters to government officials about the heritage degradation, and voting for elected officials with specific policies for heritage protection. Educational actions include reading publications, watching programs, and attending meetings and seminars about heritage issues. Financial actions are mainly related to the donation of money to organizations devoted to protect and enhance cultural heritage sites. Individuals donating to charity organizations aimed to preserve and enhance cultural heritage, in fact, is value driven by ethics and moral rules, and a phenomenon influenced by local culture and institutional factors [27]. Financial actions may also include decisions of (not) buying products from companies that have (negative) positive impacts on cultural heritage sites (e.g., donations or restoration actions) or history, traditions and identity of communities. Persuasive actions involve the attitude of visitors in influencing others' cultural heritage behaviour, for instance: promoting heritage protection, talking to friends and relatives about the issues related to cultural heritage consumption, convincing others about acting responsibly at heritage sites and adopting sustainable decisions related to heritage. Legal actions consist of judiciary actions aimed at enforcing laws on cultural heritage or on limiting negative behaviours for example at cultural heritage sites. With regard to site-specific dimensions, many actions may be considered to understand the sustainable behaviour of visitors at heritage sites [17,28]. Visitors may decide to adopt a work of art at a museum, or engage in voluntary works at a specific heritage site (light maintenance, cleaning, surveillance, and visit tours). They may also provide donations to their favourite heritage sites. Willingness to donate time or money to cultural heritage sites is positively related to the willingness to enhance cultural heritage values for

both present and future generations, and is related to the sense of civic duty and belongingness to a community [27]. Bertacchini et al. [27] individuate intrinsic, extrinsic, and reputational motivations related to the willingness of giving at heritage sites. Intrinsic motivations are those not related to apparent rewards for individuals: the driving forces of a behaviour aimed at contributing to cultural heritage are: pleasure for giving, moral codes of conduct, sense of civic duty. Extrinsic motivations are related to monetary rewards, tax credits and other economic incentives gained by individuals with their behaviour. Finally, reputational motivations are related to a social reward. In many societies, supporting cultural heritage is perceived as a positive act that allows public praise, good reputation, and image rewards. Sustainable visitor behaviour at heritage sites may be also related to their decision to limit visits to a heritage site for preservation purposes, or devoted to the respect of local culture, identity and traditions of the local community. Lazzaro and Voss [28] investigate the Dallas citizens and visitors' awareness, meaning and commitment to the City's Public Art relating specific-site behaviour of heritage visitors, e.g., their willingness to adopt a work of art, engage in voluntary works, or provide donations. Results reveal that many visitors are oriented to know more about the public art of Dallas and how to adopt a work. Furthermore, willingness to pay or to volunteer time is shown to be consistently impacted by age, job, and arts education.

2.2. *The Tourism Experience at Heritage Sites*

The multiplicity of meanings and interpretations of heritage make this concept notoriously complex to define in tight terms. As Graham et al. [56] observe, the range of meanings attached to this formerly precise legal term—an inheritance received by an individual in the will of a deceased ancestor—has undergone a quantum expansion to include almost “any sort of intergenerational exchange” (p. 1). This concept can be potentially related to anything that deals with the past in some way and is indeed frequently confused with history. However, scholars have explained that history, heritage and the past are not interchangeable [57–61]. As Lowenthal argues [58], “History explores and explains pasts grown opaque over time; heritage clarifies pasts so as to infuse them with present purposes” (xi).

Despite the lack of universally agreed upon definition of this concept, Timothy and Boyd [31] indicate that perhaps the most commonly accepted definition among heritage scholars has at its core “the present-day use of the past” [56,62] (p. 2). For example, Harvey argues that heritage is a “present-centred cultural practice” [60] (p. 336). According to Kirshenblatt-Gimblett [59] (p. 370), heritage is “a mode of cultural production in the present that has a recourse to the past”. Timothy and Boyd point out that “heritage is not simply the past, but the modern-day use of elements of the past” [63] (p. 4). This definition is purposefully broad and includes both tangible and intangible features of the cultural landscape [31]. Tangible cultural heritage includes monuments, groups of buildings, sites and cultural landscapes [64]. Intangible cultural heritage includes the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage [65]. Furthermore, Timothy [66] identifies several, potentially overlapping levels or scales of heritage, since a shared heritage can be on a global, national, local or personal level. The latter involves heritage that has direct or indirect connections with an individual's own lineage, typically centred on familial legacies.

Likewise, heritage tourism is subject to different views. Some tourism researchers have adopted definitions of heritage tourism based on the historic attributes of a site or attraction. This approach considers the phenomenon of heritage tourism from the perspective of those who supply the heritage tourism experiences that are being consumed rather than from the standpoint of the people who are engaged in them [67]. Other studies focus on the demand-side of heritage tourism, emphasizing the subjective experience produced by the relationship between the visitor and the resource [19,31,68]. The phenomenological view that the core of a heritage experience lies in the intimate relationship that the visitor experiences with the heritage is largely agreed upon in the literature [69]. In this view,

Poria et al. [70,71] argue that heritage tourism should be understood based on the relationship between the tourist and the heritage presented, considering the subjective significance and meaning attached to sites by visitors. Chronis [72] emphasizes the special relationship between tourists' everyday life and identity and heritage objects, which provides the medium through which sensory experiences of the past are transmitted to the present generation.

Research focusing on the demand of heritage tourism shed light on visitors' perspective of the tourism experience at heritage sites, including motivations, meanings, expectations and benefits. Poria et al. [71] found that site attributes are important to understanding reasons for visiting a site, but that visitors' perception of these attributes is a key issue. Their study reveals that the reasons to visit a heritage site not only include tourists' desire to learn about the history, and to take part in a recreational activity, but also to be exposed to their own heritage and thus to be involved in a personal 'heritage experience'. Masberg and Silverman [73] examine the meaning of a visit to a heritage site based on the phenomenological approach. Their results reveal a multidimensional experience, involving personalized learning, social benefits and aesthetic experience. Sheng and Chen [74] identify five types of experience expectations: easiness and fun, cultural entertainment, personal identification, historical reminiscence and escapism. According to Beeho and Prentice [75], the experience of heritage tourists derives from the combination of settings at an attraction with consumer thoughts, feelings, emotional reactions, activities, evaluation and stimulation through sensation. Based on a hierarchical approach, they identify four levels of demand: activities, settings, experiences and benefits. Hierarchical models of experience are reflected in studies by Prentice, Witt and Hamer [76] and McIntosh [21], in an attempt to understand heritage visitor experiences in terms of settings, visitor cognitive processes and emotions, and benefits gained. McIntosh [21] identifies three distinct dimensions of the beneficial heritage experience: affective (affecting emotions, attitudes, values, enhancing enjoyment and involving familiarity), reflective (affecting emotions, attitudes, values and providing insights and comparisons between past and present lifestyles) and cognitive (involving synthesis and evaluation, improving comprehension and providing new insights or additional information). According to Falk and Dierking [77], the museum experience is a continually shifting interaction among personal, social and physical contexts. Chan [78] utilizes the benefits-based approach of McIntosh [21] to understand the museum service experience consumption context. In this study, the dimensions of museum visitors' experience are found to include cognitive, affective, and emotional aspects and recreation from the personal encounters with museum physical environment. The study shows that museum visitors are both mindful (education and learning) and non-mindful (recreation and social activities), suggesting that a cognitive approach cannot be deemed wholly relevant in the museum service experience context. Chronis [79] draws on Lowenthal's [57] identification of benefits related to people's attraction to the past-familiarity, reaffirmation and validation, identity, guidance, enrichment, escape-to explore how consumers articulate their experience at a heritage museum. The study identifies six experiential benefits associated with the consumption of the past: the experience of knowledge, cultural identity, cultural values, escape in time, aesthetic appreciation, and narrative connection. These multiple benefits are found to be embedded in a cultural narrative that is formed by the information provided at the site and is mediated by imagination. Chronis [80,81] and Rickly-Boyd [82] provide insights into the co-construction dynamics of cultural narratives at heritage sites as consumption experiences emerging through the interaction between marketers and tourists. The experiential outcome of the narrative construction process is a connection with the heritage site story that provides a deeper understanding and becomes personally relevant and meaningful [83].

Other studies emphasized the experience-based perspective as a way for heritage attractions to successfully cope with market changes [75,84]. Confronted with the changing demand and cultural consumption patterns as well as cutbacks in public budgets, cultural heritage institutions (i.e. museums, archaeological parks, theatres, etc.) are increasingly concerned with achieving enhanced performance, also by adopting a more visitor-orientated approach that emphasizes demand preferences and quality of the cultural experience [85,86]. From this perspective, several studies

have investigated the relationships between the quality of heritage visitors' experience, satisfaction and behavioural intentions. Building on the scale of experience quality in tourism developed by Otto and Ritchie [87], Chen and Chen [85] propose a three factorial structure of experiential quality consisting of peace of mind, educational experience and involvement. They empirically demonstrate the relationships between the experience quality dimensions, perceived value, satisfaction and behavioural intentions for heritage tourists. Furthermore, Chen and Chen [88] consider experiential quality with four aspects including hedonics, peace of mind, recognition and involvement to examine heritage tourism experience. de Rojas and Camarero [89] examine the relationship between heritage visitors' expectations, experiences, and satisfaction, testing a model that combines two complementary approaches in the analysis of satisfaction: a cognitive approach based on quality and disconfirmation and an affective approach based on emotions. Their findings reveal that visitors' expectations are affected by both cognitive and emotional experiences; it is possible to view these as two complementary paths that result in satisfaction. Calver and Page [86] explore service value at heritage attractions and its impact on visitors' behaviour. Their study reveals the dual nature of expectations of the service experience at heritage sites. The first dimension, called Anthropogenic Service Value, relates to the quality of hospitality received and the extent to which the heritage attraction accommodates personal and social needs for welcome, warmth and the utilitarian needs for comfort and efficiency. The second dimension is the Hedonic Service Value, which provides the visitor intellectual stimulation or mindfulness, emotional impact, a sense of discovery, fascination and pleasure. Their study supports the importance of both dimensions of service relating to the core experience offered by the heritage attraction to visitors' positive behaviour, such as enjoyment, interest, and involvement. Ali [90] investigates the relationships between heritage tourists' experience, nostalgia, and behavioural intentions. Heritage tourist experience is conceptualized with four dimensions: heritage site quality, historic value learning, hedonics and escapism, and services and facilities. The study's findings suggest that heritage tourist experience may significantly impact nostalgia and tourists' intentions to revisit and recommend. Datta, Bigham, Zou and Hill [91] investigate how the heritage experience allow tourists to form a belief function that impacts their sense of affect and subsequently drives their intentions of conative loyalty towards heritage sites. Conative loyalty is attitude that expresses affect-driven behaviour to revisit and recommend the heritage tourist site. Their findings suggest a strong positive association between tourists' affect from a heritage site and their conative loyalty.

Arguably, consensus on the definition and measurement of the heritage experience is still lacking. The operationalization of the heritage experience is multifaceted with several dimensions to investigate and understand visitors' experiences at heritage sites. Following a review of extant literature (e.g., [21,78,85,86,88]), this study adopts Otto and Ritchie's [87] (p. 166) definition of heritage experience as "the subjective mental state felt by participants during a service encounter". This can include "feelings of fun and enjoyment, escape from routine, sharing valued time with family or friends, or learning" [21] (p. 43). In particular, four dimensions are consistently identified in the literature as important experiential dimensions in the context of heritage sites: learning, hedonics, escape and service quality. Learning is considered a primary dimension of the heritage experience, especially in the context of museums [78,89], and is associated with visitors' acquisition of new knowledge and insights into the past [75]. Hedonics incorporates enjoyment, fun, stimulation and other emotional aspects of the experience [88] as opposed to its utilitarian meaning [86]. Escape is defined as an experience through which tourists feel immersed in the environment at the heritage site and, thus, escapes the routine [21,92]. Experiential heritage tourism requires recognition of another component of the experience [86,87], relating to the quality of the service received at the heritage site or attraction [87,88]. The hospitality received by visitors and the extent to which the service at the heritage site accommodates personal and social needs for welcome, warmth and the utilitarian needs for comfort and efficiency are the "anthropogenic dimensions of service" that cannot create enjoyment but their absence can impede the hedonic aims of the visitor [86] (p. 26). Thus, the tourism experience of visitors at heritage sites is conceptualized in this study as a multidimensional construct, including

both experiential and functional components, respectively relating to learning, hedonics, escape and service quality.

2.3. Place Attachment at Heritage Sites

Tourism research has widely addressed the significance and effect of the concept of place attachment originated from attachment theory [93], depicting the mother-infant link. This concept relates to “the process whereby an individual’s experiences with both the physical and social aspects of an environment results in the development of strong emotional bonds with that place” [94] (p. 604). In tourism, place attachment is analysed as a multidimensional construct, which is constituted of two or more sub-constructs [4,23,94–98]. The first dimension, place identity, refers to the cognitive link between the personal self and a place, representing the identification of the tourist with a certain place or with its symbolic value. The second, place dependence, relates to the functional aspect of place attachment, describing the importance of a specific place for specific activities and needs by tourists. The third, affective attachment, refers to the strong feeling tourists feel towards a place. The fourth, the social bonding, relates to the social relations a specific place enhances. The question whether place attachment is best described by two, or more, components is still open [97]. In tourism, place attachment is also often described as “destination attachment” [94,96] and linked to visitors’ loyalty to places [96], behavioural intentions [25] and pro-environmental behaviour [50,54,55]. In particular, Louriero [25] demonstrates a significant relationship between the tourism experience, place attachment, recommendation and tourists’ intention to return in the context of rural areas. The study by Ramkissoon et al. [55] indicates positive and significant effects of place attachment on both low and high effort pro-environmental behavioural intentions of park visitors. Waterton [98] stresses that landscape, like other forms of heritage, provides a vital repository of cultural meaning in relation to identity, belonging and sense of place. The study draws on the Hareshaw Linn community project in the UK to illustrate the diverse ways in which communities construct relationships with landscape. Hawke [99] shows how heritage could support a sense of place by providing a source of pride and self-esteem, by contributing to the distinctive characteristics of a place, and by supporting continuity of identity through time. Davis, Huang and Liu [100] reveal the awareness of heritage by local communities in Taiwan, and their recognition that heritage is significant because it reflects and builds local identities, aids community sustainability and provides a sense of place. Vong [101] explores the influence of heritage tourism on sense of place among young residents in Macau.

3. Development of a Conceptual Framework

Few studies have attempted to understand how visitor experiences at heritage sites influence place attachment in turn influencing general and site-specific sustainable behaviours among visitors. The present study investigates the new concept of sustainable heritage behaviour of visitors from a demand-based perspective, underlining the important role of heritage experiences and place attachment at heritage sites. Fishben and Ajzen [32] argue that an individual’s attitude is one’s inclination to exhibit responses towards a concept. The experiential perspective on heritage consumption has examined how the heritage experience allows tourists to form a belief function that impacts their sense of affect and influences their behavioural intentions towards consumption of heritage sites [91]. Place-related constructs representing cognitive (beliefs, knowledge), affective (emotions), and conative (behavioural) commitments [23,102] have been considered as attitudes by researchers (e.g., [103,104]), providing the basis for integrating the different place components into a single framework, further analysing its influence on sustainable heritage behaviours, both general, and site-specific. Considering the respective heritage experience and place attachment sub-constructs within an attitudinal framework and their associations with site-specific and general sustainable heritage behaviour will lead to a stronger theoretical coherence, offering scholars with different avenues of research and assist heritage sites’ managers in promoting sustainable behaviours among visitors. Hence, starting from this theoretical basis underpinned by the attitude–behaviour model,

the present study develops a conceptual framework, proposing that: (1) heritage experience has a positive influence on visitors' attachment to heritage sites; and (2) visitors' place attachment positively influences their sustainable behaviour (Figure 1).

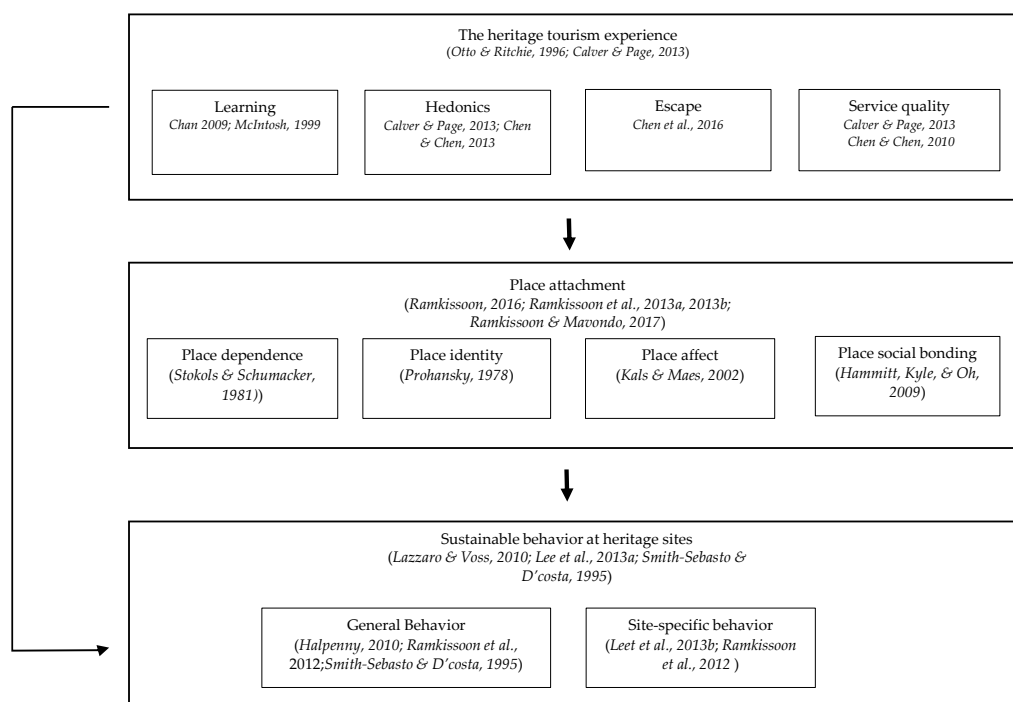


Figure 1. The proposed conceptual framework.

3.1. Tourism Experience at Heritage Sites and Place Attachment

Research investigating heritage experience and sense of place or place attachment mostly focused on local communities/residents, overlooking its significance and nature in relation to heritage visitors/tourists. Notable exceptions are the studies by Budruk et al. [68], Chen et al. [94], and Suntikul and Jachna [105]. Budruk et al. [68] investigate the effect of visitors' characteristics, motivations, past experience and sense of place attachment on their perceptions of authenticity at a cultural heritage site in Arizona. Results show that the strength of specific desired experiences and expectations about cultural heritage influences place identity. Moreover, they found that place identity was the strongest predictor of perceived authenticity.

Suntikul and Jachna [105] explore the relationship between tourists' experience at UNESCO heritage sites and place attachment. In their study, the experience value is based on Pine and Gilmore's [106] four realms of experience (entertainment, education, aesthetic and escapism), while the concept of place attachment is conceptualized by adopting Williams and co-workers' [107] two dimensions of place dependence and place identity. Their study found strong correlations between perceived experience value and place identity, supporting the link between a feeling of personal rapport with a place and the perceived value of the visitor's experience at that place. The strongest correlations for both place attachment dimensions were found with the aesthetic dimension. The three other dimensions of visitor experience (entertainment, education and escapism) correlate more strongly with place identity. Chen et al. [94] investigate the influence of symbolic consumption, experiential consumption (experiential quality) and functional consumption (service quality) on destination attachment, tourist satisfaction and destination loyalty within a heritage context. Their study centres on the cognitive connection between visitors and place (place identity), since visitors may not revisit the same destination determined by the functional connection (place dependence) in the short term. It empirically supports the role of attachment in the heritage destination context as an outcome

variable that predicts visitors' consumption as well as an antecedent variable of satisfaction and loyalty. Based on these studies, the following hypothesis is proposed.

Hypothesis 1. *Visitors' experience at heritage sites has a positive effect on place attachment.*

3.2. Place Attachment and Sustainable Behaviour of Heritage Visitors

Especially in the most recent years, literature on sustainable environment has devoted particular attention to the role of place attachment in influencing the responsible behaviour of visitors and has considered it an antecedent to behaviours aimed at protecting the environment [24,51,53,84,108]. The study by Vaske and Kobrin [51] demonstrates a positive relationship between place attachment and environmentally responsible behaviour. Vaske and Kobrin [51] argue that place identity mediates the relationship between place dependence and environmentally responsible behaviour. Lee [50] finds that place attachment significantly affects environmentally responsible behaviour, both directly and indirectly, through conservation commitment, they argue that as place attachment increases, the likelihood of environmentally responsible behaviour also increases for visitors. Considering place attachment as a multidimensional construct composed by place identity [109], place affect [110], place dependence [111], and place social bonding [112], Ramkissoon et al. [55] findings reveal that each of these dimensions influences pro-environmental behavioural intentions of visitors in a national park context. Most studies have focused on the association between place attachment and environmentally responsible behaviour in national parks, wetland tourists and other environmental settings. This study proposes to investigate the association between these constructs in a heritage-based context, where more studies are required. Hence, the following hypotheses are proposed.

Hypothesis 2. *Visitors' place attachment has a positive effect on the sustainable behaviour of heritage visitors.*

Hypothesis 2a. *Visitors' place dependence has a positive effect on the sustainable behaviour of heritage visitors.*

Hypothesis 2b. *Visitors' place identity has a positive effect on the sustainable behaviour of heritage visitors.*

Hypothesis 2c. *Visitors' place affect has a positive effect on the sustainable behaviour of heritage visitors.*

Hypothesis 2d. *Visitors' place social bonding has a positive effect on the sustainable behaviour of heritage visitors.*

3.3. Tourism Experience at Heritage Sites and Visitors' Sustainable Heritage Behaviour

The literature evidences the important role of visitor experience in influencing tourists' pro-environmental behaviour. Ballantyne et al. [22] reveal some important elements of the wildlife tourism experience that encourage visitors to adopt more environmentally responsible behaviours in their everyday lives. In particular, their study identifies four levels of visitor response to the experience, implying a process involving what visitors actually saw and heard (sensory impressions), what they felt (emotional affinity), thought (reflective response), and finally their actions (behavioural response). They suggest capitalizing on the emotional affinity between visitors and the animals, encouraging a reflective response to the experience, and providing suggestions for manageable but meaningful behavioural responses as strategies for long-term behavioural change, which not only contribute to the sustainability of the wildlife tourism industry, but also build community capacity for sustainable living. These findings corroborate with Ballantyne et al. [9], evidencing the potential of wildlife tourism experiences to positively impact on tourists' awareness, appreciation and actions in relation to the specific wildlife they encounter and the environment in general. It is found in particular that reflective engagement, involving cognitive and affective processing of the experience, is associated with both short and long-term environmental learning outcomes. McIntosh [21] explains how the affective, reflective and cognitive processes of visitors' experiential consumption at heritage sites can yield both

immediate benefits at the specific on-site level and the longer lasting outcomes that are potentially spatially divorced from the site and beneficial to others and the society. It is suggested, in particular, that the experience can result in enjoyment of reliving memories, gratefulness for living now and not then, enjoyment of sharing memories with others (immediate on-site benefits) as well as enhanced perspectives on life, wider educational value and increased support in preserving and recording the past for posterity (longer lasting off-site benefits). From this perspective emerges the importance of recognizing these multiple beneficial outcomes in managing the heritage experience to optimize visitor understanding and appreciation in the pursuit of sustainability. Other studies demonstrate the role of affective factors (emotions that individuals expect to feel by attaining a desired purpose) in influencing heritage visitors' sustainable behaviour [113] (cited by [41]). They may be positive anticipated affect (e.g., sense of pride and sense of confidence) and negative anticipated affect (e.g., guilt and remorse) [114]. Visitors' positive emotions influence their behaviour; internal satisfaction for donations of money and time is positively related to past experiences of donations, inducing people to replicate the act of giving [27]. Han and Hyun [41] reveal that the level of visitors' anticipated affect play a decisive role in generating pro-environmental intentions in the context of museums. In particular, the total impact of negative and positive anticipated emotions on intentions was greater than the other factors (i.e. cognitive factors, willingness to sacrifice, and connectedness to nature) in encouraging pro-environmental intentions of museum visitors in terms of eco-friendly actions in the museum (e.g., recycling, reducing water use, decreasing waste, eat local foods). It is proposed that the experience at heritage sites can positively influence: (1) general; and (2) site-specific sustainable behaviour of visitors.

Hypothesis 3. *Visitors' experience at heritage sites has a positive effect on sustainable behaviour of heritage visitors.*

Hypothesis 3a. *Visitors' experience at heritage sites has a positive effect on general sustainable behaviour of heritage visitors.*

Hypothesis 3b. *Visitors' experience at heritage sites has a positive effect on site-specific sustainable behaviour of heritage visitors.*

4. Scale Development and Model Testing

In order to test such a complex model, a quantitative approach using surveys will be used, which could be augmented with qualitative data obtained from heritage visitors and other stakeholders in the cultural heritage sector. In particular, one may need to use appropriate techniques such as structural equation modelling (SEM), path analysis and regression [115–117]. In particular, the SEM is considered the most suitable to test both the relationships shown in the conceptual model and the model's fit with the data from the survey [50].

To this end, a multi-stage study will be employed for the scale development for testing the interrelationships between tourism experience at heritage sites, place attachment at heritage sites, and visitors' sustainable heritage behaviour. A 1–5 Likert scale will allow representing the multiple items that are needed to measure the theoretical constructs of the proposed framework. In more detail, existing scales can be adopted from well-established studies to measure tourism experience at heritage sites as well as place attachment in the context of heritage tourism. The constructs and items for measuring the heritage experience dimensions-learning, hedonics, escape and service quality will be adopted from Calver and Page [86], Chen and Chen [88], Chen et al. [94] and McIntosh [21]. Place attachment will be measured based on Budruk et al. [68], Ramkissoon et al. [54], and Ramkissoon and Mavondo [4]. For the sustainable heritage behaviour construct, a new scale will be developed encompassing general as well as site-specific dimensions. To this end, a screening of the literature related to environmental sustainability allows 30 items to be identified related to general heritage visitors' sustainable behaviour and 13 items related to site-specific heritage visitors' sustainable

behaviour (Table 3). These items were selected from over 90 items through a careful process of analysis and selection of items that are suitable to be adapted to the specific topic of sustainable behaviour of heritage visitors. Subsequently, items that were similar in meaning were removed. Items proposed to measure the construct “general heritage visitors’ sustainable behaviour” are related to the five dimensions conceptualized in Table 2: civil actions, educational actions, financial actions, persuasive actions, and legal actions. The items were deduced from existing scales [1,17,50,51] in order to transpose the elements of a sustainable behaviour identified in an environmental setting, into the cultural heritage setting. Similarly, items related to the construct “site-specific heritage visitors’ sustainable behaviour” are adapted from existing scales [17,50,51].

In a subsequent stage, expert opinion will be gathered to achieve consensus about the selected items or a new screening of the scale. In particular, the Delphi technique will be used involving a panel of experts including researchers on sustainability, cultural heritage management, and managers of cultural heritage sites. Delphi rounds will allow to converge towards a common consensus about the scale, selecting the items which meet the criteria of the analysis and improving comprehensibility [118]. Studies on environmental sustainability in tourism that use the Delphi technique consider three rounds as sufficient to have a good result [119,120].

Table 3. Scale of cultural heritage visitors’ sustainable behaviour.

General Heritage Visitors’ Sustainable Behaviour
(1) I would be willing to pay much higher taxes in order to protect the cultural heritage.
(2) I am a member of one or more organisations concerned with the support and the protection of cultural heritage.
(3) In the last year, I have signed one or more petitions to support cultural heritage protection.
(4) In the future, I would be willing to sign one or more petitions to support cultural heritage protection.
(5) In the past, I have written one or more letters to government officials about the need of more cultural heritage protection.
(6) In the future, I would be willing to write one or more letters to government officials about the need of more cultural heritage protection.
(7) I have voted for elected officials that support cultural heritage protection.
(8) I insist on candidates who consider cultural heritage protection a priority.
(9) I usually donate money to organisations concerned with the protection and improvement of cultural heritage.
(10) I usually give time to support a pro-cultural heritage protection organization.
(11) I usually attend meetings in the community about the protection of cultural heritage.
(12) I usually read publications about the protection of cultural heritage.
(13) I usually watch TV programs about cultural heritage protection issues.
(14) I usually read books, publications and other material about cultural heritage problems.
(15) I am interested in learning how to solve issues related to cultural heritage protection.
(16) I avoid the use or purchase of certain products because of their negative impact on cultural heritage.
(17) I buy products from companies involved in the protection of cultural heritage.
(18) I buy products from firms that are careful to the history, traditions and identity of communities.
(19) I make a special effort to buy products related to the history and culture of local communities.
(20) I usually talk with others about the protection of cultural heritage.
(21) I usually talk with parents about the protection of cultural heritage.
(22) I promote the protection of cultural heritage.
(23) I promote the need to have a more responsible behaviour when visiting cultural heritage sites.
(24) I try to convince friends to act responsibly when visiting cultural heritage sites.
(25) I persuade others to adopt pro-heritage behaviours.
(26) I convince someone to visit less crowded heritage sites in order to protect and enhance cultural heritage.
(27) I convince someone not to visit crowded heritage sites in order to protect and enhance cultural heritage.
(28) I convince someone to buy products from firms that are careful or involved in the protection of cultural heritage.
(29) I convince someone to donate time or money for the protection of cultural heritage.
(30) I report someone who violates a law or laws that protect our cultural heritage to the proper authorities.

Table 3. Cont.

Site-Specific Heritage Visitors' Sustainable Behaviour
(1) I have adopted a work of art at a specific cultural heritage site.
(2) In the future, I would be willing to adopt a work of art at a specific cultural heritage site.
(3) I usually join in community efforts dedicated to protect a specific cultural heritage site.
(4) I do volunteer work for a group that helps the protection of a specific cultural heritage site.
(5) I support the protection of a specific cultural heritage site with money.
(6) I have intention to donate money to a specific cultural heritage site for its protection.
(7) I would be willing to pay much higher entrance tickets to visit a specific cultural heritage site.
(8) I donate money to support a specific cultural heritage site.
(9) I think a good idea to protect a specific cultural heritage site is to limit the number of people who visit it.
(10) I think stricter mandatory regulations should be developed for visitors in an effort to minimize their negative impacts at a specific cultural heritage site.
(11) I think the scientific monitoring of the state of a specific cultural heritage site should be increased in order to ensure its protection.
(12) After visiting a specific cultural heritage site, I leave the place as it was before.
(13) I convince someone to respect the specific cultural heritage site they are visiting.

Finally, the new scale will be subject to a pre-test. Interviewing visitors at various cultural heritage sites (e.g., museums, archaeological sites, monuments) will allow having their opinions about clarity, readability, and meanings of the items [17]. The final questionnaire will include the sections about heritage experience dimensions, place attachment, sustainable heritage behaviour, and a section on demographic data. Surveys will be administered to cultural heritage visitors at several heritage sites, which will be selected based on their levels of attractiveness, geographical location, and managerial strategies aimed at involving visitors into the cultural heritage protection.

5. Conclusions

Several tourist destinations are dependent on their heritage resources to promote their cultural tourism and heritage industries. The debate surrounding visitation and protection of heritage resources has become more intense over the years calling for more sustainable strategies to be implemented, which remain crucial for heritage destinations. This is also due to the evolution of heritage management, which calls for an integration of the traditional curatorial approach driven by the imperative of conservation, with a more visitor-oriented approach, considering visitors' preferences and quality of personal experience [15,86,91,121]. With few exceptions, studies on sustainable heritage tourism have traditionally focused on the supply side (i.e., the heritage resource), warranting a deeper investigation on the demand side (i.e., the visitors/tourists) [29,63].

The present study contributes to the literature by developing and proposing a conceptual framework for cultural heritage sites, extending the theoretical interrelationships between visitors' experience, place attachment and sustainable behaviour. Visitors' experience at heritage sites, place attachment, and sustainable behaviour of heritage visitors are treated as multi-dimensional constructs. The conceptual framework further proposes that visitors' experience at heritage sites, composed by both cognitive and affective aspects, may influence visitors' place attachment and the sustainable behaviour of heritage visitors. A literature review on the topic of environmental behaviour demonstrates that tourists may have general and site-specific sustainable heritage behaviours. The conceptual framework adopts these two dimensions to conceptualize sustainable heritage behaviour of visitors and proposes that visitors' place attachment and its constructs have a positive effect on both the general and the site-specific sustainable heritage behaviour of visitors.

The conceptual framework provides a solid foundation with the hope that it will ascertain sustainable tourism development at heritage sites. To further develop and promote the sustainable development of heritage tourism, researchers could consider other elements of heritage visitor experiences such as authenticity. Moreover, specific features of different typologies of cultural heritage

sites (museums, archaeological parks, theatres, art galleries, etc.) could further aid the understanding of the complexities involved in the relationship between visitors and the place, and its influence on the sustainable consumption of heritage resources.

This study is a first step in providing insights for heritage managers and tourism organizations to enhance their strategies for sustainable heritage tourism based on visitors' responsible behaviours. Civil, educational, financial, persuasive, and legal actions and site-specific behaviour of visitors may play a crucial role in reinforcing heritage managers' efforts towards sustainability and may be decisive in the operationalization of sustainable tourism development at heritage sites. The range of both general and site-specific dimensions of sustainable heritage behaviour identified in the conceptual framework could be usefully leveraged by heritage managers at both major attractions and less renowned sites in order to manage tourism in a way that simultaneously improves the quality of experience for visitors and the preservation of heritage resources. Further testing the interplay of relationships among heritage experience, place attachment and sustainable behaviour of visitors may assist heritage managers in implementing sustainable approaches that rely on and strategically leverage the contribution of the demand-side of heritage tourism.

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