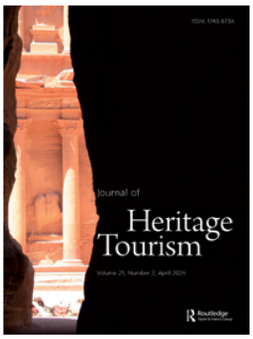

Journal of Heritage Tourism

ISSN: 1743-873X (Print) 1747-6631 (Online) Journal homepage: www.tandfonline.com/journals/rjht20

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To cite this article: Gloria Amaris, Stephane Hess, Joy Porter & Charles Prior (2026) Keeping heritage relevant at a generational crossroad: designing a choice experiment across local and global dimensions at a National Trust site, Journal of Heritage Tourism, 21:2, 201-223, DOI: 10.1080/1743873X.2026.2648606

To link to this article: https://doi.org/10.1080/1743873X.2026.2648606

Published online: 26 Mar 2026.

JOURNAL OF HERITAGE TOURISM
2026, VOL. 21, NO. 2, 201–223
https://doi.org/10.1080/1743873X.2026.2648606

Routledge
Taylor & Francis Group

Keeping heritage relevant at a generational crossroad: designing a choice experiment across local and global dimensions at a National Trust site

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ABSTRACT

Heritage is at a generational crossroad, caught between preservation and reinvention, between the weight of history and the demands of an interconnected present. Heritage valuation has relied on straightforward measures, such as admission fees, visitor numbers, overlooking the broader cultural meanings that shape engagement across generations. This paper presents a stated preference survey enabling heritage research to deploy choice modelling in a novel way to capture both local and global dimensions of heritage. Focusing on Mount Stewart, a National Trust property in Northern Ireland, we move beyond conventional attributes to test different strategies such as rotating exhibitions, conservation workshops, and planting schemes that link the site to international and local narratives. The design incorporates perspectives from visitors and non-visitors, engaging new generations while highlighting the historical features valued by existing visitors and the local community. We demonstrate the feasibility and value of this design through an initial data collection and analysis, highlighting meaningful and statistically robust results. This paper introduces and demonstrates a novel experimental design for capturing local and global dimensions of heritage value. Going beyond the present case study, the approach provides heritage professionals and researchers with transferable knowledge to embed cultural depth and inclusivity into future studies.

ARTICLE HISTORY
Received 14 November 2025
Accepted 16 March 2026

KEYWORDS
Heritage valuation; choice modelling; visitor preferences; stated preference; survey design

Introduction

Heritage is at a generational crossroad. Having relied for decades on loyal audiences and inherited stories, heritage now faces important challenges to remain relevant in a world defined by digital interaction, increased global mobility, and shifting social values (UNESCO, 2023). Traditional management and interpretive approaches, grounded in conservation and education, struggle to engage younger and more diverse publics while having to address increasingly complex debates about identity, inclusion, and authenticity (Aljas et al., 2025; Camuñas-García et al., 2023).

While conceptual and participatory frameworks are well established and are widespread across heritage studies (Liu et al., 2021), the empirical approaches used to investigate how such values are

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prioritised, negotiated, and traded off lack methodological rigour. Heritage values are still most commonly explored through expert-led significance assessments, qualitative and ethnographic approaches, visitor surveys, and participatory or deliberative methods aimed at documenting plural meanings and community attachment (Harrison, 2012; Waterton & Smith, 2010; Waterton & Watson, 2015). These approaches have been highly effective in revealing social value, identity narratives, and contested interpretations, and in supporting more inclusive forms of heritage governance (Jones, 2017; Parga-Dans et al., 2020). However, the primary limitation in the current literature is not conceptual but methodological. Comparatively few studies employ analytical approaches that can systematically test how different segments of the public make explicit trade-offs between alternative heritage futures, such as between continuity and renewal, or between local attachment and global relevance, using comparable, scenario-based evidence. In particular, there has been limited methodological development around tools capable of quantifying preference heterogeneity or variation across population groups, including differences between visitors and non-visitors, and linking these differences to actionable decisions about interpretation, experience design, and investment priorities.

A methodological opportunity exists in the form of stated-preference and choice modelling approaches that are well established within environmental economics, tourism, and recreation research, where they are routinely used to evaluate visitor experiences, forecast demand, and inform policy and investment decisions (Bateman et al., 2002; Hess & Daly, 2024; Johnston et al., 2017; Louviere et al., 2000). Despite their extensive application in adjacent fields, their use within heritage studies remains comparatively limited and fragmented. This limitation is particularly consequential in the context of generational change, where heritage organisations must make strategic decisions about narrative renewal, digital engagement, and representational change in the absence of systematic evidence on how younger and older publics value alternative heritage futures. Heritage contexts raise distinctive challenges for preference-based valuation, including the symbolic and identity-based nature of value, the importance of non-use and community values, and the intergenerational responsibilities associated with conservation (Harrison, 2012; Throsby et al., 2021; Waterton & Smith, 2010).

This paper responds to that need by developing and testing a stated preference approach that integrates both local and global dimensions of heritage value, allowing researchers and practitioners to examine how engagement and relevance may be sustained across generations. Specifically, the paper presents a pilot implementation and validation of a novel choice experiment design, demonstrating the feasibility of capturing complex heritage narratives in a structured experimental format. Although this study is grounded in heritage management, it also contributes to the wider stated-preference valuation literature used in tourism, recreation, and cultural economics. This study positions heritage as a distinctive valuation setting and develops an attribute framework that captures both local attachment and global narratives.

The remainder of this paper is structured as follows. The next sections examine the main needs, gaps, opportunities, and barriers shaping the contemporary heritage landscape, followed by an introduction to the methodology used, outlining what it is, where it has been applied, and why it offers new potential for heritage research. Section 2 presents a study case. Section 3 details the survey design, with particular attention to the choice experiment and its specific attributes. Section 4 describes the sampling strategy and provides an overview of the data. Section 5 analyses the attitudinal responses, and Section 6 reports the results of the choice model used to assess the validity of the design. Finally, Section 7 concludes with implications for heritage management and directions for further research.

Needs, gaps, opportunities, and barriers

Transforming how such sites engage with contemporary audiences brings both creative possibilities and social sensitivities. The key challenge lies in balancing innovation with continuity, introducing

new forms of engagement that resonate with younger visitors while remaining meaningful to long-standing supporters. Yet change can encounter resistance in communities where strong local identities and emotional ties to tradition persist (Graham et al., 2016; Waterton & Watson, 2015), underscoring the importance of transparent, evidence-based, and contextually grounded design choices.

Participatory, community-based, and digitally enhanced approaches show promise in bridging this divide (Wu et al., 2023), but implementation remains difficult. A central obstacle is the absence of analytical tools capable of systematically capturing and quantifying the complex values underlying heritage engagement. Behaviour in this context is multidimensional, shaped by cognitive, emotional, symbolic, and identity-based factors (Poria et al., 2003). Translating these latent motivations into usable evidence is both a conceptual and technical challenge for heritage professionals.

Traditional management practices, such as preventive conservation, restoration, and community outreach, remain essential for safeguarding physical and social value (Bell, 2015; Matero, 2003). However, they often underrepresent stakeholder preferences and the broader cultural meanings that influence engagement. Choice modelling offers a complementary framework for addressing this gap by quantifying how different groups value and trade off heritage attributes (Bateman et al., 2002; Louviere et al., 2000). Applied alongside traditional conservation practices, it provides evidence-based insight to guide resource allocation and reconcile expert priorities with public expectations. Despite its promise, adoption remains limited due to resource constraints, limited technical capacity, and in some cases institutional inertia (Pintossi et al., 2023; Waterton & Smith, 2010). Nonetheless, these challenges coexist with opportunities to strengthen participatory decision-making and build public trust. Integrating stakeholder input into valuation processes can achieve inclusive dialogue, enhance social legitimacy, and promote shared responsibility for preservation (Parga-Dans et al., 2020; Sharpe et al., 2021).

This paper addresses that need by introducing a method designed to inform heritage decision-making. The method integrates local and global dimensions of value to capture how people engage with heritage and sustain its relevance across generations, and it tests whether respondents meaningfully distinguish between locally framed and globally framed heritage experiences when making trade-offs between alternative futures. Using Mount Stewart, a National Trust property in Northern Ireland, as a case study, the study tests an innovative survey design that combines qualitative insights with a stated-preference experiment to capture visitor and non-visitor perspectives. This National Trust property in Northern Ireland, provides a valuable setting to explore how quantitative and qualitative insights can be combined to understand heritage preferences across local and global dimensions. Specifically, this research develops and validates a stated-choice experiment designed to reveal visitor motivations and trade-offs in a structured yet context-sensitive way. The resulting methodology offers transferable guidance for heritage managers seeking to sustain relevance across generations while balancing cultural, social, and economic priorities. The methodological approach and its broader relevance for heritage valuation are discussed in detail in the following section.

Choice modelling: what it is, where it is used, and why use it in heritage?

What is choice modelling?

In simple terms, choice modelling is a mathematical framework used to understand and predict how individuals make decisions between two or more alternatives, such as products or services, by quantifying the latent preferences that inform how consumers make trade-offs across multiple attributes. Choice modelling presents a toolkit of approaches that allow for the identification of unobserved constructs and account for variation in preferences and psychological traits, providing a robust framework to evaluate the relative importance of diverse motivational dimensions. A large body of theoretical work underpins an exponentially growing number of applications.

Where is choice modelling used?

Choice modelling is a well-established analytical approach used to examine preferences and predict behaviour in complex decision-making contexts. It is extensively applied across sectors such as environmental economics (Bateman et al., 2002; Johnston et al., 2017), transport (Ortúzar et al., 2011), and health economics (De Bekker-Grob et al., 2012; Soekhai et al., 2019), where it enables the quantification of trade-offs across multiple attributes and facilitates evidence-based forecasting and policy. A core methodological distinction is made between revealed preference data, which are derived from observed behaviour (Axhausen, 2024), and stated preference approaches, which allow for the controlled evaluation of hypothetical scenarios (Louviere et al., 2000). For an overview of the theory of choice modelling, and its links with economic theory as well as psychological foundations going back to the 1920s, the reader is directed to (Hensher et al., 2015; Train, 2009), with a more recent overview of developments given in (Hess & Daly, 2024).

In the broader context of this study area, in tourism and recreation, choice modelling has been applied to identify visitor preferences and to support the development of more targeted and engaging experiences. Recent studies in national park and cultural heritage contexts have demonstrated its value in informing conservation strategies and enhancing accessibility (Gao et al., 2024; Throsby et al., 2021). Within the heritage sector, the Cultural Capital Services Valuation Study employed a discrete choice experiment at Blenheim Palace and Gardens to elicit visitors' willingness to pay for cultural assets, including non-market and symbolic aspects, by analysing different closure zones of the site. Similarly, Contested Values in Heritage: A Discrete Choice Modelling Study (Dorpalen & Colwill, 2023) applied choice modelling at Belsay Hall to examine how visitors prioritise cultural and ethical values, providing insight into why heritage is important to them. Another study focused on built heritage infrastructure, using five levels (from nationally significant buildings to sites of indigenous importance) to capture public preferences for alternative conservation programmes (Throsby et al., 2021). Other research has estimated visitors' marginal willingness to pay for museum improvements, including entrance halls, galleries, museum integration, visibility from transport hubs, accessibility, cafés, audio-visual and programmable spaces, and toilet/changing facilities (Lawton et al., 2023). Beyond infrastructure, choice modelling has also been used to link the perceived importance of exhibitions with broader heritage valuation (Detotto et al., 2022; Lawton et al., 2024; Li et al., 2023).

Despite its advantages, the method remains underutilised in heritage research, where decision-making often involves navigating complex trade-offs between cultural sensitivity, inclusivity, financial viability, and the global relevance of collections (Doxanaki & Linardakis, 2022; Dragouni, 2022). Moreover, existing applications in this domain often adopt narrow scopes, typically focused on pricing or conservation outcomes, and tend to assume stable preferences, overlooking how engagement with heritage narratives may reshape individual values and influence future behaviour (Prayag & Del Chiappa, 2023; Steriopoulos et al., 2024). Capturing how people value and negotiate the meaning of heritage requires methods that capture the complexity and diversity of human decision making. Choice modelling provides such a framework, enabling systematic analysis of how visitors and communities assign significance to heritage attributes.

Why use it in heritage?

This approach is particularly well suited to heritage management, where balancing visitor engagement, cultural sensitivity, and site preservation is critical and demands careful, evidence-based decision-making. Potential changes or new initiatives in heritage sites carry significant risks, as misjudging visitor reactions can lead to lost revenue and reduced engagement. By testing hypothetical scenarios, heritage managers can anticipate visitor responses and evaluate whether proposed changes will attract new audiences while maintaining satisfaction among existing visitors. Specifically, choice modelling could provide a rigorous, evidence-based foundation for strategic planning and adaptive management by estimating the value visitors place on specific attributes, such as exhibitions, rare plants, and conservation workshops.

Beyond quantifying trade-offs, it enables scenario testing to forecast visitor responses, supporting transparent, inclusive, and forward-looking decision-making that respects the layered heritage and global significance. These can then be used to help support transparent, informed decision-making that benefits both heritage conservation and visitor engagement.

Study case: mount stewart

This research adopts a case study approach to examine how heritage sites can respond to the challenges of cross-generational relevance and visitor engagement, particularly within large organisations responsible for managing multiple historic properties.

The study area selected for this research is **Mount Stewart**, one of the historic properties managed by the **National Trust**. The National Trust is a major heritage conservation organisation in the United Kingdom, responsible for protecting and maintaining historic houses, gardens, landscapes, and culturally significant sites for public benefit. As part of its role, the organisation regularly faces strategic decisions concerning interpretation, investment priorities, conservation needs, and the design of visitor experiences across a diverse portfolio of properties.

Mount Stewart is selected because it provides a suitable context for exploring these challenges and for testing a methodological approach that is transferable to other heritage sites within and beyond the National Trust. The site also forms part of a wider research initiative examining how historic houses can be positioned as global crossroads by foregrounding their entangled international connections and enabling more inclusive engagement narratives.

Mount Stewart is a nineteenth-century estate on the Ards Peninsula in Northern Ireland, recognised for its neo-classical house, political history, and internationally renowned gardens. Formerly home to the Londonderry family, the estate reflects both local heritage and global connections through its architecture, collections, and horticultural features. Today it is managed by the National Trust and functions as an important cultural and conservation hub, supported by a microclimate that enables the cultivation of rare plant species.

The site is easily accessible to residents of both Northern Ireland and the Republic of Ireland, as well as visitors from Great Britain, the European Union, and beyond. It is located approximately one hour from Belfast city centre and can be reached by both private and public transport (see Figure 1).

Survey design

The survey was developed to meet multiple project objectives, with its structure carefully designed to ensure these aims were addressed through a coherent and integrated research framework. It

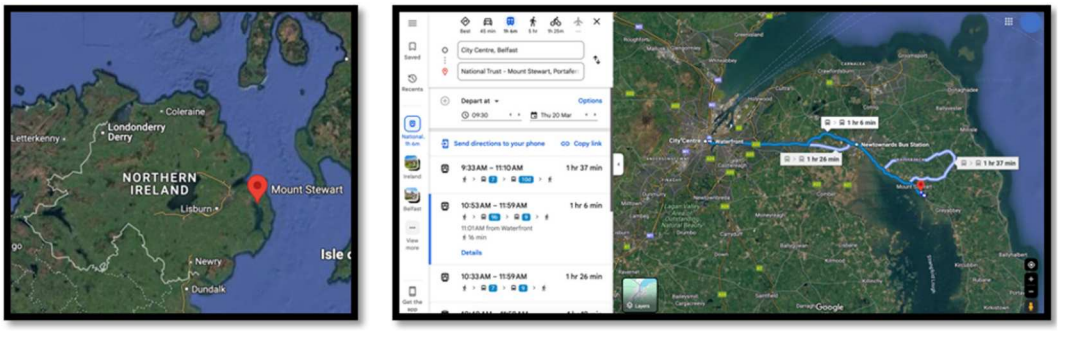

Figure 1. Study area: location and accessibility. a. Location: Newtownards. Northern Ireland.; b. How to get to Mount Stewart from Belfast city centre.

aimed to deliver a transferable, field-leading choice modelling analysis of cultural value at Mount Stewart, supporting National Trust policy innovation and informing evidence-based decision-making. In parallel, the design sought to build sectoral capacity by capturing both visitor and non-visitor preferences for globally connected cultural services using robust econometric methods. Finally, the survey was intended to develop a reusable forecasting tool to support sustainable site management, guide National Trust strategies, and contribute to international heritage and climate policy agendas.

Our iterative and collaborative methodology highlights the importance of aligning modelling objectives with stakeholder expectations, site-specific narratives, and broader heritage values. It also underscores the value of distinguishing thematic content, such as global versus local connections, within a simplified and manageable choice architecture. Based on our experience designing this novel stated preference survey for a historic house context, several lessons are particularly relevant:

(1) **Integrate local institutional knowledge and site-specific priorities from the outset**, as these ensure attributes resonate with both operational realities and visitor expectations.
(2) **Test and refine attribute definitions with a range of stakeholders**, including both decision-makers and visitor engagement teams, to balance analytical robustness with practical feasibility.
(3) **Employ broad, context-sensitive sampling strategies** that account for known participation barriers and enable meaningful comparisons between visitor and non-visitor groups, even within resource constraints.

These lessons derive from the practical challenges encountered during the development of the stated preference survey for Mount Stewart. Integrating local institutional knowledge involved early and sustained engagement with curatorial and visitor experience staff to identify concepts that aligned with the site's strategic priorities while remaining operationally feasible. This process directly shaped the selection of indoor and outdoor experience attributes and the framing of local and global content within each level. Testing and refining attribute definitions required iterative feedback to ensure that proposed experiences were sufficiently distinct, interpretable by respondents with varying familiarity with the site, and capable of generating meaningful trade-offs within the choice tasks. Finally, the emphasis on context-sensitive sampling reflects the recognition that sustained relevance across generations cannot be achieved solely with the support of current visitor data. Including non-visitors in the pilot design was therefore a deliberate methodological choice to test whether the survey could capture differences in engagement potential among publics with varying degrees of attachment to heritage, even within the constraints of a first-stage study.

Additionally, experience from other fields was followed in order to integrate attitudinal and psychological constructs alongside sociodemographic measures with a view to capturing deeper drivers of preference heterogeneity. This approach enriched our understanding of visitors' motivations and barriers, providing actionable insights to inform both site management and future research in heritage conservation contexts.

The survey design for Mount Stewart was developed through a multi-stage, collaborative process that integrated strategic goals with behavioural modelling principles. We began by consulting the property's heritage curator, the Visitor Operations & Experience Manager, and other senior National Trust staff responsible for Mount Stewart, to understand ongoing plans and aspirations for the site. Our research team then proposed incorporating the concept of globalisation, understood as the worldwide exchange of ideas, cultures, and practices, through thematic integration with National Trust interests, including immersive learning, cultural storytelling, and conservation. These themes were refined collaboratively with the project team to ensure both relevance and feasibility.

The survey followed a hybrid structure, combining a stated choice experiment with contextual questions. The survey comprised the following sections:

- **Informed consent.** All participants provided informed consent after receiving detailed information about the study, data use, and their rights, including the option to withdraw at any time.
- **Background questions**: To familiarise participants with the survey, initial questions explored their general experiences, interests, and motivations for visiting heritage sites.
- **Site information**: Standardised information about Mount Stewart was then presented, ensuring all respondents shared a common understanding of the study site before engaging with hypothetical scenarios.
- **Stated choice component**: At the core of the survey, respondents faced hypothetical yet realistic scenarios and asked to choose between alternatives. Their decisions provided data for modelling preferences and predicting behaviour. Careful design ensured the tasks were valid and reliable.
- **Attitudinal questions**: This section examined how values, beliefs, and perceptions related to respondents' decisions.
- **Socio-demographic questions**: The survey concluded with background variables, enabling segmentation of responses and comparison across groups

We now look at the different sections of the survey in turn.

Section I: background questions

A key challenge involved ensuring the collection of sufficient contextual information to facilitate meaningful interpretation of participants' decisions, while simultaneously gathering data to aid in understanding and disentangling preferences. This approach also provides a safeguard in the unlikely event that the choice modelling experiment encounters difficulties.

The questionnaire included nine questions in this section (cf. Table 1). However, as the survey targeted both visitors and non-visitors[1], certain questions (3, 4, and 5) were omitted for non-visitors, i.e. those who answer 'No' to questions 1 and 2.

Section II: study area introduction

As a second step, we aimed to capture participants' preliminary perceptions of Mount Stewart. To establish a shared understanding of the site among both visitors and non-visitors, all respondents were first presented with a brief overview of others' views of the estate (see Figure 2).

This included feedback indicating that Mount Stewart is widely appreciated by visitors and consistently receives excellent reviews. The site is commonly described as a pleasant and memorable destination (see, for example, the TripAdvisor screenshot and selected images illustrating the site's appeal). Following this, participants were shown a carefully selected set of images depicting Mount Stewart's key features. These visuals served to reinforce the descriptions provided in the visitor feedback and to familiarise respondents, particularly non-visitors, with the character of the site.

Finally, a table summarising the estate's main services and amenities was presented (Table 2). This table detailed the diverse range of experiences available to visitors, including guided tours

Table 1. Background questions.

1. Before today, have you ever visited Mount Stewart
2. Have you visited any historic houses or National Trust sites in the past (other than Mount Stewart)?
3. Who do you typically visit historic houses with?
4. What motivates you to visit historic houses?
5. What do you enjoy most about visiting historic houses?
6. What discourages you from visiting historic houses?
7. What would motivate you to visit historic houses or National Trust sites more frequently?
8. Which of the following workshops would motivate you to visit Mount Stewart more often?
9. Which of the following transport options would make you more likely to visit Mount Stewart?

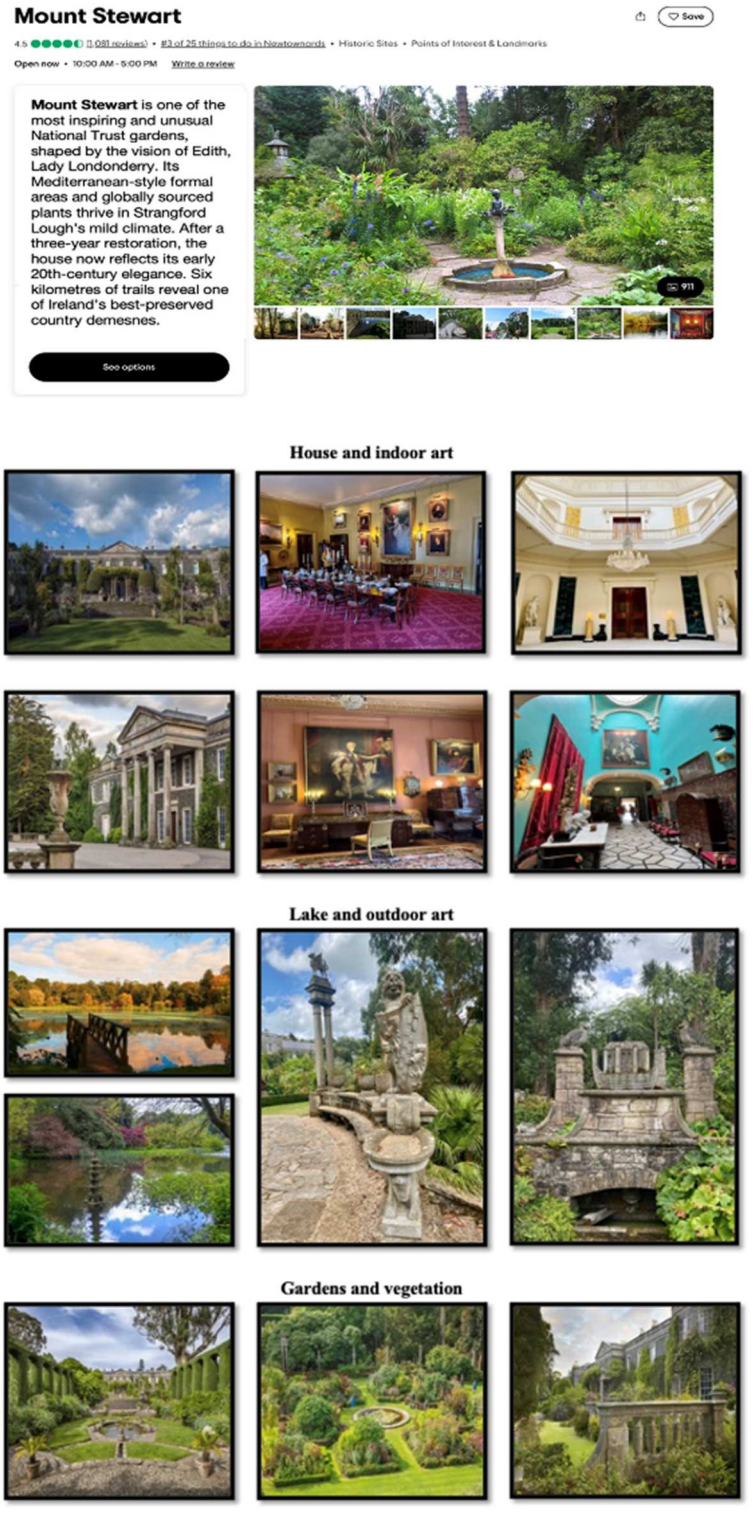

Figure 2. Photos of the property showcasing its key features and highlights. Source: https://www.tripadvisor.com

Table 2. Current visitor experience.

Visitor experience	• **House & Collection:** Discover the Londonderry family's history and 15,000 + items • **Gardens & Lake:** Walk through the gardens and around the scenic lake • **Amenities:** Enjoy the café, gift shop, guided tours, walking trails			
Preservation efforts	• Restoration of building, furniture and art • Preservation of nature and protection of species • Creation of habitats through tree planting • Combating climate change by using renewable energy			
Accessibility and transport	• Free parking available • Indirect public bus (one transfer along the way)			
Entrance Fee (under 5s free)	Type	Standard Price	Gift Aid* Price	Membership** (Yearly)
	Child (5-17)	£7.50	£8.30	(Included in family)
	Adult (18+)	£15.00	£16.50	£96.00
	1 adult, 2 children	£22.50	£24.80	£103.80
	2 adults, up 3 children	£37.50	£41.30	£168.00

*Gift aid price: Gift Aid Admissions claim 25% tax, boosting the National Trust fund
**Membership gives free access to Mount Stewart and 500 + other National Trust sites

of the historic house, walks through the renowned gardens and trails, and access to on-site facilities such as a café and gift shop.

Providing this background information at the beginning of the questionnaire ensured that all participants, regardless of prior familiarity with the site, had a consistent frame of reference. This common foundation was essential for the subsequent evaluation of proposed conservation strategies and cultural experiences later in the survey.

Once respondents had viewed the background information about Mount Stewart (see Figures 1 and 2), they were asked two follow-up questions with the phrasing personalised to their visitor status (Table 3). These questions served as a common reference point for comparing perceptions between visitors and non-visitors, enabling us to establish a baseline for understanding how each group values the current visitor experience and its associated costs.

Section III: stated preference survey

The stated choice component forms the core of this research and involved the most extensive preparatory work.

Existing site data and strategic evidence needs

Heritage sites such as Mount Stewart routinely collect operational and monitoring data, including visitor numbers, ticket sales, basic demographic information, and qualitative feedback through surveys and comment cards. These data provide essential insight into current performance and visitor satisfaction, but they are largely retrospective and descriptive in nature. As a result, they offer limited support for evaluating alternative experience strategies that have not yet been implemented, particularly where such strategies are forward-looking, costly, or difficult to test through real-world experimentation.

The stated preference approach adopted in this study is designed to complement existing site data by generating structured, scenario-based evidence on how visitors and non-visitors value different experience attributes and the trade-offs they are willing to make between them. This forward-looking perspective supports strategic decision-making related to experience

Table 3. Follow up questions.

How much do you like the current visitor experience at Mount Stewart?
(visitors) As a visitor, what type of entrance fee do you usually pay?
(non-visitors) What type of entrance fee would you be willing to pay if you were to visit?

development, audience engagement, and investment prioritisation, and aligns with the data needs of large portfolio organisations seeking to assess potential interventions before committing resources.

Selection of attributes and levels

A key methodological step in this study involved translating Mount Stewart's strategic development goals into a robust set of attributes and levels for the stated choice experiment. This process began with a collaborative focus group involving National Trust administrators and team members, who subsequently shared a written summary of the elements they considered essential for the site's future. These stakeholder priorities were synthesised with insights from the literature and the project's conceptual framework to generate a preliminary list of candidate attributes.

This list was reviewed by National Trust members, who provided structured feedback on the relevance and clarity of each theme. Based on their input, a refined and streamlined set of attributes was produced, encompassing two primary dimensions: additional indoor and outdoor visitor experiences. Each attribute included six levels, along with a baseline level representing the status quo (i.e. no additional experiences). These levels reflect a variety of experience types, such as immersive experiences, themed exhibitions, and rotating displays, applied to both indoor and outdoor settings, with the addition of experiences linked to climate change adaptation and awareness. These attributes were selected not only for their site-specific relevance but also for their potential to capture broader heritage engagement values, thereby offering a nuanced understanding of how visitors perceive cultural, educational, and sustainability-related experiences.

Table 4 presents the list of attributes and levels. The final levels we present here were obtained after review and feedback by National Trust staff to ensure alignment with the site's development objectives, leading to minor refinements to our original proposals to enhance clarity and consistency.

Table 4. Attributes and levels.

Attributes	Content	Level code	Level description
Additional visitor experience **indoors**	Baseline	0	None
	Immersive experiences – local	1	**Immersive journey** into Mount Stewart's past-its creation and 1800s daily life
	Immersive experiences – global	2	**Immersive journey** through history-Explore global cultures and iconic moments from the past
	Themed exhibitions – local	3	**Themed exhibitions** and iconic stories on how Mount Stewart was built and shaped over time
	Themed exhibitions – global	4	**Themed exhibitions** from around the world like the 'Wonders of the World, The Silk Road, Art of Travel'
	Rotating displays – local	5	**Rotating heritage displays** – Photos of Mount Stewart's iconic moments and stunning transformations through the years
	Rotating displays – global	6	**Rotating world heritage displays:** rare objects from around the world
Additional visitor experience **outdoors**	Baseline	0	None
	local	1	Local plant seed exchange & storytelling garden: learn, take home, connect
	global	2	International species seed exchange & storytelling garden: learn, take home, connect
	local	3	**Outdoor photo exhibitions –** stunning images of Mount Stewart captured by visitors
	global	4	**Outdoor photo exhibitions** – Famous artistic pieces photographed by international artists
	local	5	**Themed gardens** with vibrant wildflowers and plants showcasing local heritage
	global	6	**World garden trail** with themed stations like Japanese, French, Tropical, Persian Gardens

While each attribute was presented under a single label (indoor or outdoor) in the choice tasks, the internal structure was designed to distinguish between local and global content. This embedded variation allowed for advanced modelling analyses to examine whether preferences were driven more by the type of experience or by its thematic scope. For example, an immersive exhibition could focus on Mount Stewart's historical life or on iconic global cultural narratives; outdoor trails might feature native wildflowers or internationally inspired gardens such as Japanese or Persian themes. For both core attributes, a baseline level was included that implied no changes to the current site setup.

Choice tasks and experimental design

To keep respondent burden to a manageable level, we focussed on binary choice tasks, i.e. each time asking respondents for their preference between two different site configurations. Figure 3 is an example of how the choice tasks appeared, where each respondent saw 10 separate such tasks, with varying combinations of experiences.

The specific combinations of attribute levels shown in each task come from a carefully balanced set of choice tasks that ensured all options were represented and that the survey remained clear and manageable for participants. Technically, we generated a D-efficient experimental design that ensured good statistical properties with a finite sample size. D-efficient designs are widely used in stated choice experiments to maximise the precision of parameter estimates given a fixed number of choice tasks, thereby improving the statistical efficiency of the study (Bliemer & Rose, 2024). These designs aim to optimise the informational value of each response by balancing attribute level combinations while considering constraints on respondent cognitive load (Louviere et al., 2000; Scarpa & Rose, 2008). In our work, we used uninformative priors, simply recognising all additional experiences have an added utility over the baseline. Our design used 4 blocks of 10 choice tasks, with each respondent randomly allocated to one of the 4 blocks.

Presentation to respondents and frequency/WTP questions

Given that stated preference surveys involve hypothetical scenarios (an unfamiliar format for many respondents), we provided participants with a brief explanation of the upcoming tasks to ensure they understood the nature and purpose of this section. We also clarified that there were no right or wrong answers, and that we were interested solely in their preferences.

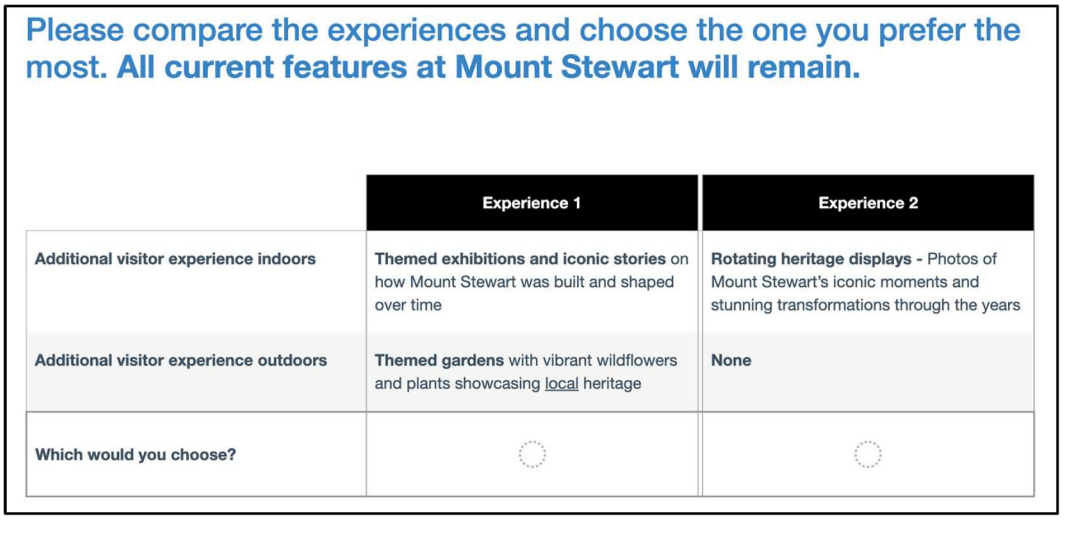

Figure 3. Choice card example.

Participants were introduced to the section with the following text:

> In this section, you will see 10 scenarios showing possible additions to the experience at Mount Stewart. Please compare the experiences and select the option you prefer. There are no right or wrong answers, we are simply interested in your preferences. The choice cards you are about to see may look similar, but each one is different.

Following this introduction, participants were presented with choice tasks such as the one illustrated in Figure 3. We went beyond the standard stated choice focus by also eliciting information on likely visit frequency and willingness to donate. Specifically, each task was accompanied by three decision questions:

> **Choice**: selection of the preferred option among those presented;
>
> **Frequency**: 'If Mount Stewart offered the experience you selected above, how often would you visit?';
>
> **Willingness to donate**: 'For your selected experience, how much would you be willing to donate to help bring this to life (in addition to the entrance fee)?'

The format of the frequency question was consistent with that used earlier in the survey, following the initial presentation of images and tables describing the current visitor experience. The inclusion of these additional dimensions extends previous applications of choice modelling in heritage by linking stated preferences to intended visitation behaviour and voluntary financial support, thereby moving beyond preference ranking alone.

The inclusion of visit frequency and willingness-to-donate questions alongside each choice task was motivated by the decision-making context faced by heritage managers, where preferences for experiences must ultimately be translated into patterns of visitation and financial support. The interest is ultimately not just in which experience a potential visitor might prefer, but how often they would visit and whether they would be willing to pay more should these new features be in place. Asking these questions conditional on respondents' stated choices preserves the integrity of the choice experiment and supports internal consistency, while enabling the analysis to link relative preferences to intended behavioural responses. This design builds on established practice in stated preference research that combines choice data with complementary behavioural indicators, while remaining sensitive to respondent burden through a simple and consistent task structure. In the heritage context, where experience changes are often evaluated in terms of both engagement and financial sustainability, this approach provides a more robust and policy-relevant evidence base than choice data alone.

Section V: attitudes

The survey component aimed at capturing attitudinal information was displayed after the stated choice component so as to avoid influencing the choices (Louviere et al., 2000). Our motivation for this component was to provide data that will later allow us to account for underlying attitudes and perceptions, which are crucial for understanding variations in preferences.

Attitudinal questions were grouped into eight thematic constructs, including pro-globalisation attitudes, perceived value of historic houses, emotional and psychological barriers, willingness to support sustainable practices, and contextual barriers (economic and logistical), as well as general environmental attitudes. Respondents rated their agreement on a five-point Likert scale (1 = Strongly disagree, 5 = Strongly agree), where we included an additional 'Does not apply' option for accessibility-related questions. The selection of the attitudinal statements was informed by a combination of theoretical grounding in heritage, environmental psychology, and sustainability literature, as well as practical considerations aligned with the research objectives. These statements were designed to capture relevant constructs, such as global and local value orientations, perceived cultural and environmental value, and various access barriers, to disentangle the latent preferences driving choice behaviour (to see the complete questionnaire see the annexes).

Section V: socio-demographic characteristics

The final section of the survey collected key sociodemographic information from participants. This section comprised eight questions covering gender, age, education level, ethnicity, current place of residence, occupation, income, and the respondent's connection with the National Trust. These variables were included to support descriptive analysis of the sample and to enable further exploration of variation in tastes in preferences across different population segments. Including sociodemographic data is essential for contextualising choice behaviour and attitudes, as well as for assessing the representativeness of the sample and informing potential policy implications. A section for comments was included at the end of the survey.

Data collection and sample overview

Our study comprises 1,120 observations, derived from 10 choice scenarios completed by each of 112 participants. This provides rich data for the pilot, as choice modelling focuses on individual responses to scenarios (i.e. choice observations) rather than individual participants alone, allowing us to capture variation in preferences more effectively. The multiple observations per participant also help validate the survey design, ensuring that the tasks are understandable, realistic, and capable of producing meaningful insights for the full study.

The data were collected via the Prolific platform, with participants recruited from the Republic of Ireland, chosen for its proximity to Northern Ireland and Mount Stewart, while it avoided the risk of including any potential main wave participants (from Northern Ireland) in the pilot. To ensure proper display of choice-based tasks, the survey was restricted to desktop and tablet users, excluding mobile phone respondents. While a 50/50 gender quota was applied during recruitment, no additional quotas were imposed for other sociodemographic variables. Table 5 presents the demographic breakdown of the sample. Gender distribution was nearly balanced, with 49.5% male and 48.6% female respondents. Participants represented a range of age groups, with the largest proportions in the 30–39 and 50–59 age brackets. The sample was relatively well-educated: over 73% held a university degree or postgraduate qualification. Racially, the sample was predominantly White (89.2%), with small representations from Black, Asian, and mixed ethnic backgrounds.

Income distribution skewed toward mid-to-high ranges, with nearly 30% earning between £60k-£99k and an additional 13.5% reporting incomes above £100k. Most participants were employed full-time (65.8%), with smaller proportions working part-time, self-employed, or retired. Regarding visitation patterns, 91% reported having visited a historic house before, although 89.2% indicated they had never visited Mount Stewart specifically.

The sociodemographic profile of the sample is characterised by relatively high levels of education and income, which warrants careful reflection. This pattern is consistent with well-documented characteristics of heritage audiences and with previous research showing that historic house visitation is often associated with higher cultural capital and socioeconomic status. At the same time, the use of an online recruitment platform and the absence of quotas beyond gender are likely to have reinforced this profile. While this limits the extent to which the findings can be generalised to all population groups, it is appropriate for a first-stage pilot focused on testing survey design, attribute salience, and respondent comprehension.

Importantly, this profile does not invalidate the empirical results, as the modelling work is suitable for capturing differences across socio-demographic groups. This highlights the value of the stated preference approach in revealing variation within a population that is often treated as homogeneous, and in identifying how even relatively engaged publics negotiate trade-offs between continuity and renewal in heritage experiences differently from each other. From a research design perspective, these findings inform the refinement of the instrument for subsequent data collection phases, where targeted sampling strategies can be employed to better capture under-represented groups. From a site management perspective, the results underscore the challenge faced by heritage organisations in broadening engagement beyond traditional audiences, and the need for evidence-based tools to assess how alternative experience strategies may resonate with different segments.

Table 5. Sociodemographic distribution.

Response	N (%): 112
Gender	
Male,	55 (49.5%)
Female	54 (48.6%)
Non-binary/Other	1 (0.9%)
Prefer not to say	1 (0.9%)
Age	
Under 30	13 (11.7%)
30–39	32 (28.8%)
40–49	28 (25.2%)
50–59	30 (27%)
60+	8 (7.2%)
Education	
University degree	47 (42.3%)
Postgraduate	35 (31.5%)
Some college	14 (12.6%)
Graduated high school	13 (11.7%)
Other/Prefer not to say	1 (0.9%)
Some high school	1 (0.9%)
Race	
White	99 (89.2%)
Black	8 (7.2%)
Mixed	2 (1.8%)
Asian	1 (0.9%)
Prefer not to say	1 (0.9%)
Income	
£20k	7 (6.3%)
£20k – £39k	19 (17.1%)
£40k – 59k	26 (23.4%)
£60k – £99k	33 (29.7%)
£100k+	15 (13.5%)
Prefer not to say	11 (9.9%)
Occupation	
Employed full time	73 (65.8%)
Employed part time	12 (10.8%)
Self-employed	8 (7.2%)
Retired	5 (4.5%)
Homemaker	4 (3.6%)
Student	3 (2.7%)
Unemployed	3 (2.7%)
Prefer not to say	2 (1.8%)
Other	1 (0.9%)
Visitors (general)	
Never visited an historic site	10 (9%)
Have visited a historic site	101 (91%)
Visitors (Mount Stewart)	
I visited before	12 (10.8%)
I have never visited Mount Stewart	109 (89.2%)

Analysis of attitudinal data

Attitudes and perceptions can be key drivers of choices and have been a key focus in choice modelling for the last two decades see e.g. (Ben-Akiva et al., 2002). In this section, we present an overview of the attitudinal data collected in our pilot survey.

Summary of attitudinal responses

Figure 4 presents the distribution of respondents' answers to attitudinal statements concerning global heritage and conservation. Most participants expressed positive views, with responses clustering around '*Agree*' and '*Strongly agree*'. Statements such as '*Sharing history inspires*", '*Promoting links preserves*", and '*Global stories add value*' attracted the highest levels of agreement, indicating strong

support for interpretive approaches that emphasise global connections and storytelling within heritage settings. Neutral responses were less frequent, and disagreement was minimal. Together, these patterns highlight a consistent appreciation for the global and inspirational dimensions of heritage presentation.

The findings suggest that audiences are receptive to interpretive strategies that position heritage within broader cultural and geographical frameworks, reflecting an openness to more interconnected and inclusive understandings of the past. High levels of agreement with globally oriented statements indicate that respondents view heritage as a space for dialogue and shared meaning rather than as a static expression of local identity. This perspective points to opportunities for heritage organisations to embed international narratives and collaborative interpretation into their practice. Overall, the results underline the value of linking local significance to global narratives as a means of maintaining relevance and strengthening engagement across diverse audiences.

Scale reliability and internal consistency

To assess the internal consistency of the composite attitudinal scales (Cronbach, 1951), Cronbach's Alpha values are presented in Figure 5. Most scales achieved acceptable to high reliability. Pro-Globalisation ($\alpha = 0.832$), Environmental Attitudes ($\alpha = 0.806$), and Economic Barriers ($\alpha = 0.792$) demonstrated excellent internal consistency. Pro-Heritage Value ($\alpha = 0.757$) and Emotional Barriers ($\alpha = 0.716$) also met the threshold for acceptable reliability, while Support for Sustainability ($\alpha = 0.637$) showed moderate reliability, suitable for exploratory research. Accessibility Barriers ($\alpha = 0.426$) and Logistical Barriers ($\alpha = 0.348$) fell below conventional thresholds, indicating low internal consistency. This may be due to the context-dependent nature of these items, which

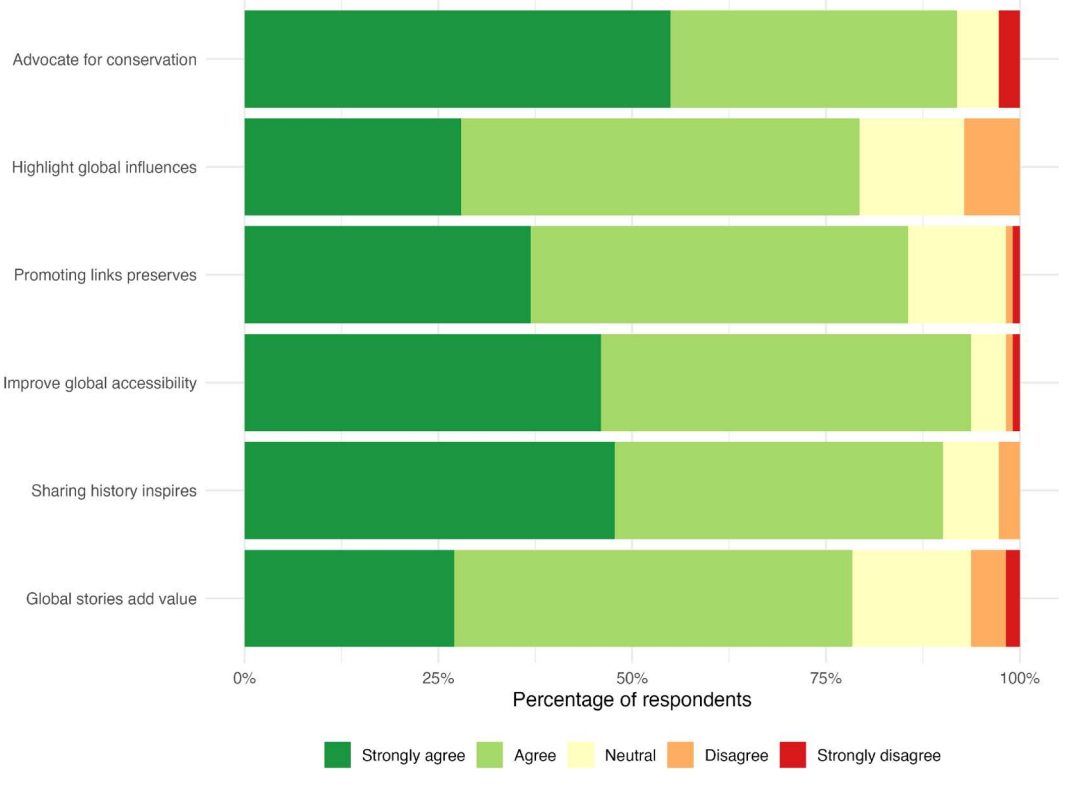

Figure 4. Attitudinal support for heritage and global narratives.

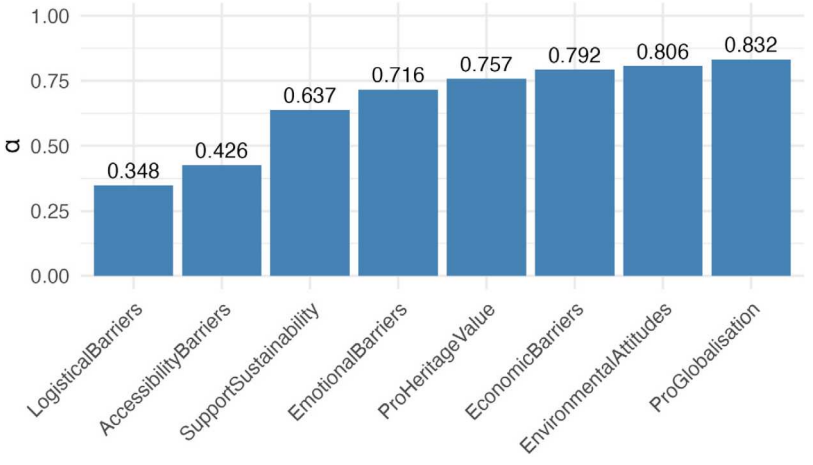

Figure 5. Cronbach's Alpha by scale.

might not be relevant to all respondents, particularly those who do not face mobility challenges or transport-related constraints. For example, respondents who do not rely on public transport, or who do not perceive accessibility as a limiting factor, may answer these items with less consistency, while in addition, for the accessibility questions, the responses used in the calculations for Figure 5 exclude those respondents who answered with 'Does not apply to me'. As such, these scales may benefit from further refinement or targeted segmentation in future research to better capture the experiences of subgroups for whom these barriers are more salient.

Attitudes by visitor status

Figure 6 presents comparative boxplots illustrating the distribution of responses across eight attitudinal and barrier-related scales, disaggregated by visitors and non-visitors. For each scale, we took the average of the answers to the multiple attitudinal questions in that group at the respondent level. Both groups reported high levels of agreement with positive statements about heritage and conservation, particularly on the *Pro Heritage Value*, *Environmental Attitudes*, and *Pro Globalisation* scales, where median responses were close to 'agree' or 'strongly agree.'

In contrast, non-visitors indicated greater agreement with items related to *Emotional Barriers*, *Logistical Barriers*, and *Accessibility Barriers*, suggesting that psychological hesitation, practical difficulties, and mobility-related challenges may be more prevalent among this group. These patterns highlight potential obstacles that may discourage non-visitors from engaging with the site.

Non-visitors also expressed slightly stronger support for sustainability-related behaviours, as reflected in their responses on the *Support for Sustainability* scale, though this may not yet translate into heritage site visits. Perceptions of *Economic Barriers* were similar across both groups, although responses among visitors showed greater variation, indicating differing levels of financial concern.

These findings point to the importance of addressing emotional and practical access issues to enhance engagement, particularly among those who have not yet visited the site, while also building on the widespread positive attitudes toward heritage and environmental values.

Analysis of stated choice data

Following the design phase, we conducted empirical validation to confirm that the stated choice experiment was functioning as intended. A preliminary model was estimated using the pilot data to test whether the estimated signs of key attributes aligned with theoretical expectations. This

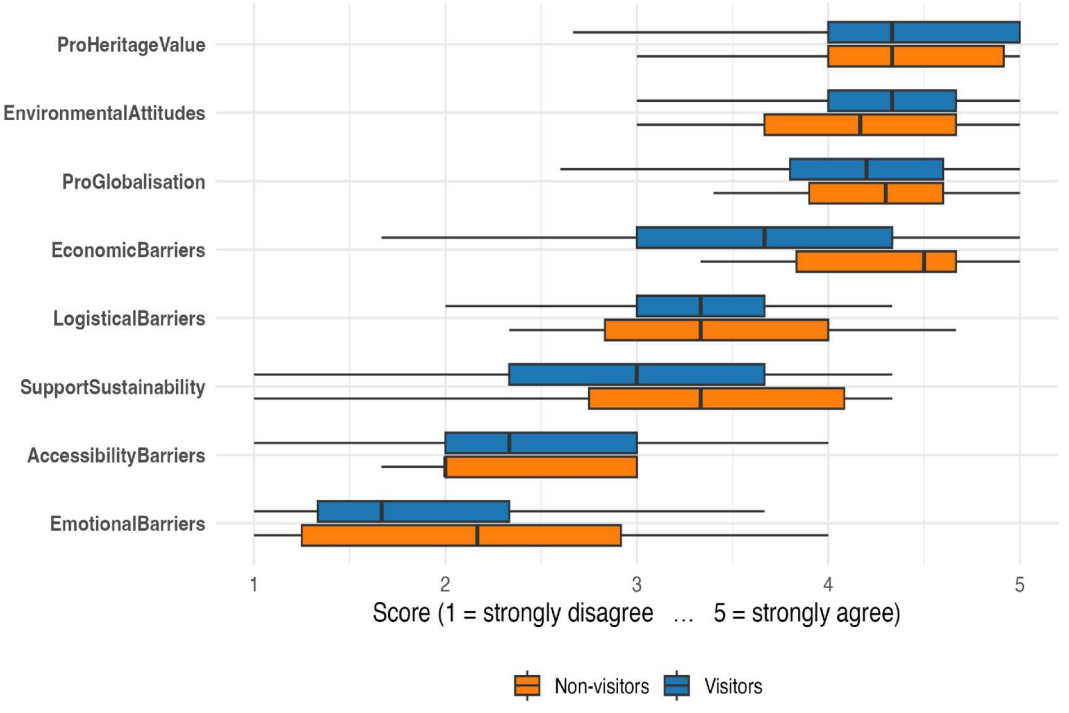

Figure 6. Answers distribution.

validation step is essential in choice modelling using SP data so as to allow analysts to detect potential design flaws or respondent misunderstandings before proceeding with full-scale analysis.

To assess the performance and clarity of the survey design, we estimated a preliminary Multinomial Logit (MNL) model using the pilot data. The model included all indoor and outdoor visitor experience attributes and their respective levels, with dummy coding applied to each categorical variable.

Specifically, the utility for alternative j ($j = 1, 2$) in choice situation t for person n is given by:

$$U_{jnt} = V_{jnt} + \varepsilon_{jnt} \tag{1}$$

where V_{jnt} is the deterministic component of utility and ε_{jnt} is the random component. We have:

$$V_{jnt} = \delta_j + \sum_{k=0}^{6} \beta_{indoor,k} x_{indoor,k,jnt} + \sum_{k=0}^{6} \beta_{outdoor,k} x_{outdoor,k,jnt} \tag{2}$$

where δ_j is a constant for alternative j (normalised to zero for $j = 2$). The parameter $\beta_{indoor,k}$ captures the impact on utility of level k for the indoor experience, where the parameter for the base level ($k = 0$) is fixed to zero given the use of dummy coding, meaning that the remaining β parameters tell us the benefit of adding said experience vs the status quo.

We use a type I extreme value distribution for ε_{jnt} across individuals, observations and alternatives, leading to the MNL choice probability for alternative j as:

$$P_{jnt}(\Omega) = \frac{e^{V_{jnt}}}{e^{V_{1nt}} + e^{V_{2nt}}} \tag{3}$$

where Ω groups together all model parameters.

Estimation and model fit

Model parameters were estimated using maximum likelihood estimation in Apollo (Hess & Palma, 2019). The final model obtained a log-likelihood of –680.5.

The estimation results are summarised in Table 6. The purpose of this analysis was not to extract final behavioural insights from the pilot sample, but to validate whether the attribute descriptions were understandable and capable of producing meaningful trade-offs. The constant for the left alternative was negative but not different from zero, indicating no left-right bias.

Overall, all non-baseline levels were positively signed and statistically different from 0 (the base level), indicating that respondents engaged well with the tasks and expressed coherent preferences across the alternatives, and showed a positive utility for the added experiences. We now look in detail at the indoor and outdoor attributes.

Indoor visitor experiences: preferences across content and themes

The indoor experience attribute contained three types of content: immersive journeys, themed exhibitions, and rotating displays, each with both *local* and *global* versions. All levels were preferred over no additional indoor experience (i.e. the baseline condition), confirming that respondents value opportunities to engage more deeply with the site's stories and heritage.

Among these, **immersive journeys** generated the strongest preference weights overall. The local immersive experience, focusing on Mount Stewart's creation and 1800s daily life, was the highest-

Table 6. Estimates.

Attributes	levels	Content	Estimate	Rob.s.e.	Robust. t.ratio
	ASC left option		−0.080	0.061	−1.318
Additional visitor experience indoor	None	**None**	0	NA	NA
	Immersive experiences – local	**Immersive journey** into Mount Stewart's past-its creation and 1800s daily life	1.610	0.224	7.193
	Immersive experiences – global	**Immersive journey** through history-Explore global cultures and iconic moments from the past	1.349	0.227	5.946
	Themed exhibitions – local	**Themed exhibitions** and iconic stories on how Mount Stewart was built and shaped over time	1.346	0.213	6.307
	Themed exhibitions – global	**Themed exhibitions** from around the world like the 'Wonders of the World, The Silk Road, Art of Travel"	1.286	0.203	6.331
	Rotating displays – local	**Rotating heritage displays** – Photos of Mount Stewart's iconic moments and stunning transformations through the years	0.784	0.210	3.739
	Rotating displays – global	**Rotating world heritage displays:** rare objects from around the world	1.383	0.219	6.301
Additional visitor experience outdoor	*Baseline*	**None**	0	NA	NA
	local	**Local plant seed exchange & storytelling garden**: learn, take home, connect	1.074	0.212	5.069
	global	**International species seed exchange & storytelling garden:** learn, take home, connect	0.802	0.204	3.926
	local	**Outdoor photo exhibitions –** stunning images of Mount Stewart captured by visitors	0.844	0.186	4.539
	global	**Outdoor photo exhibitions** – Famous artistic pieces photographed by international artists	0.704	0.185	3.806
	local	**Themed gardens** with vibrant wildflowers and plants showcasing local heritage	1.201	0.221	5.427
	global	**World garden trail** with themed stations like Japanese, French, Tropical, Persian Gardens	1.745	0.219	7.958

valued indoor option (Estimate = 1.610, t = 7.19). The global immersive journey, offering a broader exploration of global cultures and iconic moments, also received strong support (1.349, t = 5.95), though slightly lower than its local counterpart. This suggests that while visitors are highly attracted to immersive experiences in general, they particularly value content that anchors them in Mount Stewart's specific historical narrative.

Themed exhibitions, both local and global, were also highly valued and performed almost identically (local: 1.346, global: 1.286), indicating strong but relatively balanced interest in both place-based and internationally themed interpretive exhibitions.

Rotating displays received the lowest relative weights within the indoor category (local: 0.784, global: 1.383), though both were still statistically significant and positively valued. Notably, the global rotating displays attracted stronger preferences than the local ones, unlike in the immersive content, where local experiences were more preferred. This could indicate that participants view global rotating displays as more novel or educational, while local photo displays may be seen as familiar or less engaging.

Outdoor visitor experiences: content type and local/global variation

The outdoor attribute followed a similar structure, with three types of content (interactive seed exchange and storytelling, photo exhibitions, and themed gardens) and both local and global variations.

Across all outdoor levels, the **world garden trail**, the global version of the themed gardens, stood out as the most strongly preferred attribute in the entire model (Estimate = 1.745, t = 7.96). This suggests very high appeal for experiential, diverse botanical environments that offer culturally distinct garden styles. Its local counterpart, themed gardens with wildflowers and plants reflecting local heritage, also attracted strong preferences (1.201), though not to the same degree.

The **interactive plant exchange and storytelling garden** was another well-valued feature, with respondents favouring the *local* version (1.074) slightly more than the *global* one (0.802). This may reflect a stronger emotional or community connection to local plant knowledge and storytelling traditions.

Lastly, **photo exhibitions** followed a similar trend: both local (0.844) and global (0.704) versions were positively valued, but the local variant was again slightly preferred. This contrasts with the indoor rotating displays, where the global version was preferred. One possible interpretation is that outdoor local photography may feel more grounded and relatable in a garden setting, while global indoor displays may be perceived as more enriching or novel.

Behavioural implications

To put a behavioural meaning on the estimates, we can consider the use of odds ratios, given by the exponential of the estimates of β. The resulting values then tell us how the odds for an alternative probability of choosing it divided by the probability of not choosing it, i.e. $P_j/(1-P_j)$ differs between the case where that alternative has the added experience vs the case where it does not. The highest odds ratios for an indoor experience is obtained for the local immersive level, with an odds ratio of 5, indicating substantially higher odds of choosing that alternative compared to when it has no added experience. For the highest outdoor experience, the global garden trail, the odds ratio is even higher, at 5.7. Of course, when comparing across non-base levels, the odds ratios become smaller. Nevertheless, differences exist. For the indoor experience, an alternative that has the best level (i.e. Immersive experiences-local), has odds that are 2.28 times as high as at the least preferred added experience (Rotating displays-local), obtained as $e^{1.61-0.78} = 2.28$. Similarly, for the outdoor experience, the odds at the best level are 2.83 times as high as at the least preferred added experience (World garden trail *vs* International species seed exchange), calculated as $e^{1.74-0.80} = 2.83$..

Conclusion and framework for further exploration

This paper has described the development and pilot testing of a stated preference survey designed to value visitor experiences at heritage sites, using Mount Stewart in Northern Ireland as a case study. The survey was developed through a collaborative process involving key stakeholders and was explicitly designed to test whether complex and contested heritage narratives could be translated into a structured, decision-relevant experimental format. Initial data collection was undertaken to validate the feasibility, clarity, and analytical performance of the design.

The pilot results provide strong validation of the survey instrument. All attribute levels were positively signed and statistically significant, indicating that respondents consistently valued the additional experiences relative to the baseline conditions. These signs align with theoretical expectations and demonstrate that participants engaged meaningfully with the choice tasks. The coherence and interpretability of the estimated parameters confirm that the attributes were clearly understood and that respondents were willing and able to make explicit trade-offs, even when evaluating abstract and intangible aspects of heritage value.

Beyond statistical validation, the pilot also offers substantive insight into how respondents engaged with the content of the experimental design. Attributes were clearly differentiated, and responses reflected a nuanced understanding of the choices presented. In particular, the inclusion of both local and global heritage framings across immersive experiences, exhibitions, and outdoor content proved effective in eliciting meaningful variation in preferences. Differences in preferences between local and global versions of otherwise comparable experiences illustrate that heritage value is shaped not only by the type of experience offered, but also by its narrative framing. This finding reinforces the importance of explicitly testing alternative interpretive strategies rather than assuming uniform responses to heritage content, and it highlights the broader relevance of the survey design beyond this specific case study. As such, the framework provides a transferable approach for other heritage sites seeking to explore how global and local dimensions of value can be integrated into visitor engagement and conservation strategies. Crucially, the more granular set of results produced by such studies can provide site managers and heritage organisations with more detailed empirical support for the decisions they need to make to ensure the long-term relevance and success of their sites.

As an exploratory, first-stage implementation, this pilot represents a necessary step in validating the feasibility and policy relevance of the approach before full-scale deployment. A larger study would allow for richer behavioural modelling and more detailed examination of preference heterogeneity, including the influence of socio-demographic characteristics and attitudinal factors. Future applications could also refine attribute framing and level differentiation where preferences appear closely clustered, and extend the modelling framework to examine interactions between values, attitudes, and experience types. This staged approach reflects the practical realities of heritage research and decision-making, while ensuring that subsequent applications are grounded in a rigorously tested methodological foundation.

As with all stated preference studies, the findings are subject to limitations that warrant careful consideration. Responses are based on hypothetical scenarios rather than observed behaviour and may therefore be influenced by hypothetical bias or respondents' difficulty in fully anticipating future actions. While the survey design sought to minimise these risks through clear framing, realistic scenarios, and internal consistency checks, it cannot fully capture the experiential, emotional, and social dimensions of heritage engagement as they unfold in situ. In addition, the structured nature of choice tasks necessarily simplifies complex interpretive decisions, meaning that some nuances of narrative meaning and collective experience remain outside the scope of the model. Nevertheless, the systematic quantification of preferences and trade-offs provides a transparent and defensible basis for anticipating potential outcomes, offering a more robust foundation for decision-making than reliance on untested assumptions or purely retrospective evidence.

The distinction between local and global content in the choice attributes is intended to capture differences in scale and thematic framing, rather than to represent specific historical narratives. In

this pilot, 'global' functions as an analytical category encompassing internationally oriented stories and connections, without disaggregating particular histories or interpretive positions. While this abstraction supports comparability and reduces cognitive burden at an exploratory stage, it also means that the experiment does not differentiate between global narratives that may be experienced in a positive, negative or neutral way. Preferences may therefore differ when specific global histories, including those associated with colonialism or enslavement, are made explicit in other studies. This is recognised as a limitation of the pilot design and highlights an important direction for future research, where narrative specificity could be systematically incorporated within the same modelling framework.

Finally, the study underscores the importance of designing visitor experiences that are inclusive, globally informed, and locally grounded, and of having analytical tools that allow such ambitions to be assessed before implementation. Rather than pointing to a need for generic education or training, the findings highlight the value of methods that help heritage professionals translate interpretive intentions into structured, testable experience options. By enabling systematic comparison between alternative narratives and experience configurations, the stated preference approach developed here supports both interpretation and strategic planning in contexts where heritage organisations must justify decisions about narrative renewal, investment, and long-term relevance across generations.

Note

1. Here, visitors refer not just to visitors of Mount Stewart, but of historic houses in general.

Author contributions

CRediT: **Gloria Amaris:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Software, Validation, Visualization, Writing – original draft, Writing – review & editing; **Stephane Hess:** Methodology, Supervision, Validation, Writing – review & editing; **Joy Porter:** Funding acquisition, Project administration, Resources, Writing – review & editing; **Charles Prior:** Funding acquisition, Project administration, Resources, Writing – review & editing.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Arts and Humanities Research Council: [grant number AH/T006099/1].

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