Enriching the Summer Palace’s Cultural Experience

Christopher J. Parker, Liangchao Xue, El Webster, and R. Ian Campbell

Loughborough Design School, Loughborough University, Loughborough, UK
c.parker@lboro.ac.uk

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1 Abstract

Cultural Heritage occurs when visitors tell stories of exceptional experiences at historic sites- after their visit occurs. For the Summer Palace’s directors to create exceptional experiences, exhibition designers must understand how to tell stories that have great meaning to the Summer Palace’s national and international visitors. Our research targets this question – we propose developing innovative and unique storytelling methods through interactive exhibitions throughout the Summer Palace to suspend the visitor’s sense of reality; increasing their sense of flow, suggestion, and engagement. We suggest the Summer Palace for this research project due to its status as a UNESCO World Heritage Site seeking to increase its international reputation. If directors and exhibition designers understand how advanced technology, including immersive exhibitions and augmented reality, can meet educational, enjoyment, and emotional needs of the Summer Palace’s diverse visitors during festivals and tourist visits, we may increase existing visitor’s engagement, and capture new tourist groups - who previously ignored the Palace. We hope our work shall ultimately contribute to making the Summer Palace China’s foremost Cultural Heritage Site and festival epicentre.
2 Introduction

While many UNESCO landmarks apply advanced technology interactions to engage visitors and the wider community [1]–[5], their design ignore the social context that provides the interaction’s meaning. Despite Beijing’s Summer Palace receiving 1.5 million visitors per year, history and culture interaction with the UNESCO landmark are lacking. Visitors are focusing on photography, tours, and dancing instead of emotionally experiencing the unique culture of the park. While such emergent activities represent community spirit, the Palace’s designers never intended to accommodate or encourage these activities. As such, the Palace’s deep cultural significance requires stronger communication methods.

To develop the Summer Palace as China’s cultural and social epicentre and deliver a tourist experience suiting an international UNESCO landmark, curators and designers must understand the human reaction to innovative experiences supplied through advanced technology. Loughborough Design School pioneered advanced technology in the form of 3D Scanning of cultural relics for replication and display [6], [7]. Our realistic relic replication allows visitors to experience the Emperor’s treasures at a fidelity unpractical through traditional techniques. Combining our 3D Scanning technology with established and successful design methodologies pioneered by Loughborough Design School [8]–[10] offers a tantalising opportunity for revolutionising the visitor experience. Therefore, the Summer Palace faces three distinct challenges:

1. How to communicate the Summer Palace’s history without disturbing the existing infrastructure in order to increase the Palace’s touristic value and promote a peaceful international environment.

2. How to improve the Summer Palace’s emotional experience, building upon the Palace’s existing interpersonal engagement in order to increase social engagement whilst improving local people’s livelihood and well-being.

3. How advanced human-centred technology can assist the Summer Palace in presenting the seven traditional festivals to bring people together in a positive celebration in order to increase the Palace’s value throughout China, realise a national consensus, and foster friendship, integrity, dedication, harmony civility, and prosperity.

To determine how the Summer Palace may address these questions while delivering a unique visitor experience, this paper outlines three case studies of advanced technology in heritage and culture sites. We discuss the unique challenges facing the Summer Palace and the human-centred design research required to deliver exceptional cultural experiences for China.

3 Case Studies

In experiencing a museum or historic site, museum curators assume visitors undergo a transformation experience. Visitors undergo a transformation by viewing the objects and locations, altering emotions in a way fitting to the style and context of the museum. Yet the uncontrolled nature of visitors and tours to the Palace means the traditional emotional stimulus of signs and historic architecture are ineffective. Effective visitor experience at internationally excellent centres have, in recent years, created world leading experiences through advanced technology’s application. Advanced technology has included augmented reality and immersive environments – while being sympathetic to the historic site’s nature.
To determine if similar approaches are suitable for the Summer Palace, researchers must explore each approach individually.

3.1 Augmented Reality and Emotional Experience

Augmented reality digitally delivers emotional stimuli through the visitor’s personal smartphone, may offer an effective – yet untapped – resource. Visitors may experience a variety of emotions during a sightseeing tour to the palace, producing a novelty effect [11]–[13]. The visitor’s heritage involvement perception further influence the their motivations (learning, experiencing, and interest) and visitation behaviour (earlier visits and further intention to visit) [14]. When invited to experience augmented reality within a museum, most visitors comment that learning about - and experiencing - authentic elements, and the scene-spot’s ‘historic character’, are essential to encourage location visitation [15]. Augmented reality could, therefore, increase the Summer Palace’s value through enhanced engagement.

Despite augmented reality’s potential, few museums expose visitors to augmented reality and are unaware of its existence [14]. To reduce technology acceptance barriers, the accessibility of augmented reality must be a priority, with smooth and active interactivity. Providing a simple yet intuitive experience is essential since visitors must gain new skills for the technology to be successful. More than just changing habits, these new reality forms promise to transform the visitor’s experience as new layers of perception are added. We must subsequently ask; how do designers create smooth and active interactivity?

The Summer Palace’s visitors come with diverse technological demands. Our research has shown – in a consumer context - these demands to be: efficient information search, multi-language, navigation, history/culture introduction, event notification, reviews, and up-to-date information [16]. Curators and designers, understanding and delivering an augmented reality solution that satisfies the visitor’s needs will positively impact on the visitor’s perception of the Summer palace. The interface of augmented reality could offer personalised service through recommendation of destination from filter option or visitor’s preference, enable visitors to decide which route to take or where to go. For the Summer Palace, this will offer flexibility to make changes based on the visitor’s temporary thoughts [14]. Yet to design augmented reality to enhance the visitor experience, the designer must understand, rather than assuming, the visitor’s needs. As of 2019, research has yet to define the design of augmented reality for cultural heritage sites.

An authentic augmented reality experience enables tourist interacting with scenic-spots which will improve the perception of the experience’s quality. Our research shows engaging in a challenging journey creates more rewarding user experiences [16]. Designers should create the content to surpass reality, enabling visitors to experience the events they could not do in the real-world environment [16]. Hence, the tour to the Summer Palace may no longer just about sightseeing, but also about leaning and experiencing. Learning and experiencing the Summer Palace enriches visitation and enhances visitor’s satisfaction by providing a better experience [17], [18]. Augmented Reality designers should emphasis on social dimensions (i.e. sharing social experience) to improve hedonic value. These positive experiences being a motivator for technology acceptance [19]; a function of utilitarian, hedonic and social benefits [20], [21].
3.2 Immersive Exhibitions

While augmented reality provides an opportunity to change a user’s perception of reality, using a smartphone to interact with an environment breaks the visitors’ experience flow. Experience flow, where the visitor forgets all thoughts outside of exhibition engagement, is essential in situations such as festivals of remembrance; or the scenery of a temple. In scenarios of deep inner reflection, designers must find a method for creating non-invasive immersive experiences.

Developments in technology can change how museums and institutions can give information to their audiences. As the internationally acclaimed band Sigur Rós show through arena sized immersive artwork projects as part of their live shows [22], [23], technology can create a near religious experience – see Figure 1.

![Image of Sigur Rós performing live behind an immersive curtain](image)

Figure 1. Sigur Rós performing live behind an immersive curtain [24]

In an art context, the Immersive Van Gogh exhibition at the ‘Digital Art Museum L’Atelier des Lumieres’ (Figure 2) in Paris shows how digitisation creates a multisensory experience [25]. The exhibition combines with music to form an immersive experience; evolving as the audience walk over the painters enlarged masterpieces. Since opening in April 2018, 1.2 million people have experienced the exhibition, with Museum Director Bruno Monnier commenting: “Van Gogh’s paintings transformed art history and digital technology can be an excellent way of understanding his world” [25].
In Singapore’s National Museum, the immersive ‘Story of the Forest’ exhibition similarly created a fully immersive experience; see Figure 2 [26]. Alongside digital artwork, the exhibition links with a visitor’s smartphone, providing information about the animals featured in the interactive artwork; see Figure 3. In offering the visitors a personal interaction, the exhibition enters the audiences’ control. For museum curators, offering visitors a self-directed experience, as opposed to a traditional controlled experience, offers the strongest future in an increasingly competitive tourist market [27].

3.3 Creating Cultural Heritage

While Interactive heritage experience research focuses on the advantage for museums, immediate visitor experiences, and technical capabilities, the long-term impact on visitors is often overlooked. Our research shows that while immediate sensory enjoyment is essential for tourist experiences [28], long-term reflection is essential for creating last memories,
stories, and cultural importance associated with a cultural site [29]. The question therefore stands, how to create long-term reflection.

Skateboarders at London’s Southbank Embankment skatepark are an example of visitor constructed heritage [30]. At the Southbank Embankment, unique emotions and experiences formed over time where the skateboards were in control of the park experience, creating a deep sense of place and heritage. The sense of place and heritage was strong enough to fend off fierce redevelopment threats and keep the park for future generations. The developed cultural heritage’s strength suggests that similar visitor generated experiences could translate into the museum environment [30]. Museum curators cannot control cultural heritage, but only direct the visitor’s personal emotional experience - creating cultural heritage over time.

Including museum visitors in experience decision making is the best way to curate a personal emotional experience [31]. Our research shows how non-professional decision makers’ impact on user experiences is, contrary to popular belief, as trustworthy and high quality as professionally content [32], [33]. Museums may apply audience participation in decision making; where curators traditionally control official narratives of the sites [34]. Increasing audience participation also has parallels with the Richardson [27], in that: “[a]s museum experience is becoming increasingly collaborative, museums are becoming more comfortable letting audiences have a say, and again technology can facilitate this”. Bisht [35] showed how international memories of places and events grows beyond the traditional boundaries of local populations once international media reports and shares local experiences. Given the Summer Palace is one of China’s key tourist destinations, visitors are already creating the global consciousness of the Palace - and must help shape the China’s festival celebrations. As Chinese festivals commemorate the diversity of life’s experiences, considering all dimensions is important to bring people together in happiness, remembrance, and sadness; in a form suiting to the local and national mood within China. This is especially when for emotionally challenging festivals - such as Qingming - where ceremony forms part of the healing [36].

Giving the audience a sense of engagement will improve the relationship with museums, allowing a sense of authorship within institutions. If a visitor gains a sense of authorship, then museums may bring about a new sense of narrative making based around the public. Placing the onus on the audience rather than the curator to direct the experience allows museums to become more personalised, with technology allowing visitors to intimately experience public events [30], [31]. The deconstruction of knowledge suggests the malleability of meaning, as the artefacts can mean, and not mean, different ideas; depending on the context the visitor views the artefact.

4 Conclusion

Museums who fail to pioneer visitor experiences though advanced technology shall, conclusively, be overshadowed by those who invest in visitor experience research. Through our case studies, we show how while the ‘Van Gogh’ and ‘Story of the Forest’ immersive experiences display a technical proficiency, the question of how designers and curators can apply these technologies within the Summer Palace is less clear. Classical literature notes the Summer Palace for its calm and serine nature [37], yet both case studies excel at delivering hyper-real excitement in viscerally energised situations. While Sigur Rós offer a
more introspective option, curators and designers must give cautious consideration to immersive exhibitions and visceral experiences’ integration, as to not disturb the illusion’s calmness and serenity. The Summer Palace is a unique cultural and historical site, where applying experiences and technology from other sites without question will not be sympathetic to the expectations and needs of the Chinese people. To be sympathetic to the Chinese people’s expectations and emotional needs during festivals, designers must include the Chinese people in the conception, direction and day-to-day creation of those festival experiences. We suggest that curators, researchers and designers work together to answer this paper’s questions through site-specific research.

We propose increasing the Summer Palace’s social and cultural value through establishing the Chinese and Summer Palace requirements cultural interactions. In developing Chinese and Summer Palace requirements, curators and designer can create deeper and more meaningful cultural interactions than previously possible. To address the Summer Palace’s three distinct challenges, we propose the following three activities where research shall:

1. Establish the level of detail and human interaction required from augmented reality for location-based storytelling to understand how to communicate the palace’s historical stories without interrupting the existing infrastructure.
2. Design new Palace interactions through workshops with key stakeholders, focused on understanding thoughts, feelings, emotions and opportunities in the existing Palace environment to understand how to improve the Summer Palace’s emotional experience, building upon the Palace’s existing interpersonal engagement.
3. Develop prototypes and a fully functioning visitor app based on visitor emotions, actions and desires around cultural and festival experiences to understand how advanced human-centred technology can help the Summer Palace in presenting the seven traditional festivals to bring people together in a positive celebration.

The Summer Palace can, by addressing these challenges, become China’s cultural and social epicentre through visitors, at a level surpassing current Chinese centres or international UNESCO landmarks. Yet the Summer Palace can only address these issues through human-centred research, and an innovative application of technology.

5 References


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