NEW TECHNOLOGIES IN ARCHITECTURAL
HERITAGE PRESENTATION: ISSUES OF AUTHENTICITY

_ Jovana Tošić

PhD, Professor of Vocational Studies,
Information Technology School – ITS, Belgrade,
Serbia, jokica.in.wonderland@gmail.com

ABSTRACT

Contemporary practice of architectural heritage presentation broadly includes new technologies, aiming to revive historical architectural values and authenticate their experience. Although this approach has many advantages for creating a unique experience for visitors, it brings the question of preserving the authenticity of architectural heritage. For example, when it comes to house-museums interiors, their values lie in numerous artefacts, which implies that the presentation of its values and the spirit of a place (genius loci) should be traditional or more narratively (through curator stories or digital reader devices and QR codes with linked information about each artefact). This narrative architectural heritage presentation questions the relevance and quality of presenting its architectural values and the experience of its historical and contemporary character. To adequately present tangible and intangible architectural values (spirit of place), recent house-museum presentations and exhibitions include high-technology innovations. This paper analyses two house-museum presentations: 1) An olfactory reconstruction of Philip Johnson's Glass House interior, and 2) An audio-olfactory reconstruction of Lina Bo Bardi's Glass House interior. These installations shape how visitors observe and understand the architectural and social values of the presented heritage and their experience of its character.

The research aims to analyse how different approaches to new technologies in heritage presentation practice may positively or negatively impact preserving the authenticity of architectural heritage. The primary research method is the method of comparative qualitative analysis. Firstly, the type of spatial experience these new technologies evoke is defined (multisensory, synaesthetic, embodied, immersive). Secondly, before analysing the examples (house-museum presentations), crucial aspects of the concept of authenticity were elaborated. The paper's research results should indicate which important aspects to consider in this presentation practice to preserve authenticity, which may lead to a new methodology of architectural heritage presentation practice.

KEYWORDS _ *Heritage presentation, Spirit of place, Character, High technology, Multisensory experience*

INTRODUCTION

Contemporary architectural heritage presentation methods include implementation of newly high-technology installations (such as audio-olfactory or olfactory-spatial installations), as well as usage of hi-tech applications and gadgets (AR applications + tablets or phones). This rising trend in cultural heritage preservation and presentation brings up a crucial issue of preserving the sources and concept of authenticity of architectural heritage as well as its *genius loci* (spirit of a place). The aim of implementing these new technologies in architectural heritage presentation is to revive tangible as well as intangible architectural values (spirit of place and its character) so that visitors can observe and understand historical and social values (as well as its contemporary context) of architectural heritage, through immersive and embodied multisensory experience (not just within narrative one). The process of implementing hi-tech and innovative methods of presentation in historical spaces requires detailed research and heritage valorisation for defining tangible and intangible elements. Thus, this type of architectural heritage presentation may develop issues, such as – a potential of hi-tech installations and artworks to overshadow architectural and historical values of the space, and to highlight the particular character of the spaces, blurring the historical and contemporary context.

The primary research method used to analyze information taken from relevant sources is the method of comparative qualitative analysis. Firstly, the type of spatial experience these new technologies bring is defined (multisensory, synaesthetic, embodied, immersive). Secondly, before analyzing the practical heritage presentation examples, key aspects of the concept of authenticity were elaborated. This paper analyses two experimental projects of house-museum presentation by implementing new technologies: 1) An olfactory reconstruction of Philip Johnson's Glass House interior, and 2) An audio-olfactory reconstruction of Lina Bo Bardi's Glass House interior. The main aim is to indicate the key aspects of this type of architectural heritage presentation practice to preserve authenticity, which may lead to further research and, possibly, to a new methodology of heritage presentation practice.

CONTEMPORARY PRESENTATION OF ARCHITECTURAL HERITAGE: MULTISENSORY EXPERIENCE

Visitors' experience of the historical spaces and their experience of the architectural heritage values are multisensory experiences. It means that in aim for their perception of the historical and contemporary character of the heritage be immersive and embodied, heritage values must be felt, triggering all senses simultaneously. The crucial aspects of multisensory experience are synaesthesia and 'cross-modal effects'. These aspects are also crucial for implementing new and innovative technologies into historical spaces. Synaesthesia is a medical term and denotes the ability of one sense to feel the stimulus of another sense (Šuvaković, 2011: 646). So, synaesthetic qualities of the space could be described as 'sharp sound', 'cold blue', 'warm light', etc. 'Cross-modal effects' means that different sensory components modify each other's sense perception (in most cases, emphasizing the perception of the other one). For example, the room height will affect the acousmatic (the ambient sound of a room) in the gallery, as well as the feel of the flooring and the noise your footwear makes on it all affect the unaware experience of the space (Smith, 2020: 90), which means that it is a simultaneously a haptic, tactile, sound, and vision spatial experience.

In Charleston Declaration (2005), the term *presentation* is defined as follows: The architectural heritage presentation involves conveying information about the values of architectural heritage (ICOMOS, 2005). In contemporary architectural heritage presentation practice, traditional, narratively methods (limited to objects and subtexts told by a curator or in the form of a digital reader device with QR code scanners linked with each artifact) are combined (or in some examples replaced) with more innovative and attractive techniques of historical values presentation. These techniques could include: audio-visual apparatus, sound, light and olfactory effects, evocative displays, etc., and their use in historical spaces should primarily be to emphasize the historical significance of the space and

its artifacts but should not overshadow their heritage values (Dessens, 1997: 9). These technologies could be visible or incorporated into space and its architectural elements. Also, it could include some digital technology gadgets, like a tablet computer, for AR (augmented reality) technology heritage presentation and experience. Regarding multisensory perception and AR technology applications, there are clear limitations; it is mainly audio-visual experience, with some elements of haptic ones (Figure 1). AR applications can overlap historical and contemporary contexts by recreating some historical structures and details, thus bringing some additional information about the place (Morozova, 2018).

Figure 1: Augmented reality application used in a museum
(source: https://jasoren.com/how-to-use-augmented-reality-in-museums-examples-and-use-cases/)

INNOVATIONS IN ARCHITECTURAL HERITAGE PRESENTATION: ISSUES OF AUTHENTICITY

Multiple historical layering of architectural heritage spaces forms a connection between the space's past (historical context) and the present (contemporary context), but also with the future. Thus, the visitor's experience of these spaces is complex in terms of activating their 'existential sense', reflecting the spirit and character of the space on their identities, and creating immersive and embodied experiences of historical spaces. In the process of architectural heritage presentation, it is essential to preserve and present:

- elements of tangible and intangible values of the historical space,

- the spirit of the place (genius loci),

- the concept and principles of authenticity.

Firstly, the concept of authenticity is shortly elaborated to highlight the most important aspects of preserving authenticity in the context of high-technology innovations in heritage presentation. Secondly, examples of house-museums architectural heritage presentations are presented. The focus is on their methods of implementing high technology for shaping multisensory experience, intending to critically examine the preservation of authenticity in these house-museum presentations.

THE CONCEPT OF AUTHENTICITY IN ARCHITECTURAL HERITAGE PRESENTATION

For the contemporary context of architectural heritage preservation and presentation, it was of essential importance to expand the scope of the concept of heritage and perception of time in

the context of assessing authenticity and integrity. The concept of authenticity, nevertheless, is still of crucial importance. It becomes more flexible and broader for the historic architectural heritage to make an intertwined connection with contemporaneity and its spirit of place and social values. Key interpretations of the concept of authenticity for its more flexible understanding and implementation are interpretations of Professor Herb Stovel and Professor Natalia Dushkina, explained further in the paper.

Authenticity, as a term, was first used in the preamble of the Venice Charter (1964), in which it stated that it is essential for the monumental heritage to be passed on to future generations "in the full richness of their authenticity" (ICOMOS, 1964). In The Operational Guidelines for implementing the World Heritage Convention (UNESCO, 1977), the main criterion for valorizing cultural heritage is *authenticity* concerning the following sources: *conception, materials, artistry, and ambiance* (Jokileto, 2002). These parameters of authenticity were further discussed at two academic meetings organized in 1994 to define the concept of authenticity more closely. At the first gathering in Bergen, new sources of authenticity were added: *form, essence, tradition, intention, function, context, spirit, and others* (Jokileto, 2002). At the Nara conference on Authenticity (1994), there was a significant change and expansion of the concept of authenticity, including the inclusion of intangible aspects of heritage (*tradition and technique, spirit and feeling*) in the sources for the authenticity assessment.

The most important for the modern understanding and evolution of *the concept of authenticity* is the new interpretation of academic Herb Stovel, an expert in preserving cultural heritage. He formulated three key aspects for the adequate application of *the concept of authenticity* in the preservation and presentation of cultural heritage:

1. "Authenticity is not a value in itself", and in order for a cultural heritage to be nominated for inscription on the World Heritage List, it should first of all "show its claim of exceptional universal value, and then demonstrate that the attributes carrying related values are authentic, that is, genuine, real, true, credible" (Stovel, 2007: 29).

2. Authenticity should not be sought in all the attributes identified in The Operational Guidelines.

3. The concept of authenticity should not be treated as if it were an absolute concept - present or not (Ibid).

A significant contribution to developing the idea of authenticity as a relative concept (rather than an absolute concept) was made by Dushkina, focusing on assessing the authenticity of cultural heritage based on individual attributes in a discussion she presented at the Nara conference (1994). Her interpretation of authenticity is reflected in the individual analysis of each source of authenticity, separated and independent from other sources. She states that if the sources are studied simultaneously, there may be a "partial loss of authenticity of each of them" (Dushkina, 1995: 310).

CONTEMPORARY PRACTICE: NEW TECHNOLOGIES
IN HOUSE-MUSEUMS PRESENTATIONS

Two experimental projects of implementing new technologies in house-museum presentation are presented: 1) An olfactory reconstruction[1] of Philip Johnson's Glass House interior, and 2) An audio-olfactory reconstruction of Lina Bo Bardi's Glass House interior.

The olfactory reconstruction of Philip Johnson's Glass House interior is an experimental project of presentation that presents the method of implementation of the produced scents in the historic space. The authors – architect and artist Jorge Otero-Pailos, and famous perfumer Rosendo Mateu faced the lack of documentation about the smell of the house because, according to Otero-Pailos, "the house was misunderstood as an image of a glass house without a smell" (Otero-Pailos, 2008:

---

[1] The authors determined the term *reconstruction* in these projects, but it is rather questionable regarding architectural heritage preservation because these projects use intangible elements for the spatial installations.

40). Therefore, it was necessary to focus on the architectural concept and characteristics of the house that can reveal details of its olfactory aesthetics. The essential data were: the architect's original intentions related to the smell, the way to ventilate and purify the air in the house, and the social characteristics of the house visitors (members of the high-class society and cultural elite). The analysis methodology determined the concept of the olfactory installations. It revealed three characteristic phases of the house smell, thus the restoration of the smell was done by dividing it into three periods: the first phase - from 1949, when the house was built, the second phase - from 1949 to 1969, the third phase - from 1969 to the present (Otero-Pailos, 2008). When restoring the olfactory aesthetics of the house, the focus was on the smell of tobacco smoke, wood, and the perfumes current in that era. According to Otero-Pailos, such smells have left visible traces in the house interior, and indicate the social and cultural status of the users, as well as speak about the interior use itself.

Figure 2: Philip Johnson's Glass House interior
(source: Courtesy of Richard Schulman, www.schulmanphotography.com)

After the restoration, Lina Bo Bardi's Glass House was reopened to the public (2013) as a house museum, with original furniture designed by Lina and artistic paintings and sculptures. As part of the exhibition called "Inside is Outside", which was organized on this occasion, Brazilian conceptual artist Cildo Meireles created a temporary audio-olfactory installation named "Pietro Bo" (Obrist, 2013). This installation is a restoration of the sounds and smells in the house's everyday life and evokes the memory of the house from the period of Lina and Pietro. Upon entering the living room, visitors could smell the intense aroma of freshly roasted coffee. The concept of the installation is related to an anecdote from the life of Lina and Pietro, which it evokes: a male voice booming, "Lina, va fare un caffè!" ("Lina, go make some coffee!") is evoking Pietro Bardi's habit of sending his wife to the kitchen whenever a political argument was about to erupt. Meireles included Pietro's voice in the installation, repeatedly saying that sentence, recorded on a vinyl record, so that this sentence continuously echoes through the house. One of the visitors to the exhibition described his experience as follows: "I stayed on a stormy afternoon in April, the rain splashed on the Glass House, the voice soon became irritating – this was probably Meireles' intention' (Rigby, 2013).

Figure 3: Vinyl record - a part of the audio-olfactory installation "Pietro Bo"
(source: https://www.mutualart.com/Artwork/Pietro-Bo/C017B65C6D3BB5E6A92B680B75DDA49B)

CONCLUSIONS

Regarding previous key elaborated aspects of the concept of authenticity (*authenticity is not a value in itself; authenticity should not be sought in all the attributes identified in The Operational Guidelines; the concept of authenticity should not be treated as if it were an absolute concept; there should be individual analysis of each of the sources of authenticity*), as well as defined sources of authenticity (*conception, materials, ambiance, form, essence, tradition, intention, function, context, spirit, and others*), it could be concluded that, in architectural heritage presentation projects, the use of new technologies has numerous advantages as well as disadvantages.

In the temporary audio-olfactory installation "Pietro Bo", Meireles used the coffee smell and reconstructed the voice of Pietro Bo. The installation has a strong influence on visitors' experience of Lina Bo Bardi's Glass House interior because the smell is the most evocative sense, and the sound of Pietro's voice was authoritative, almost irritating, and that was the first impression of the visitors entering the house. The aim was to evoke its spirit of place and character and illustrate its everyday life, social and cultural values. Nevertheless, in this example, we could not follow the rule of individual analysis of each source when assessing the authenticity sources. Only in these particular arrangements (scents and sounds) do they evoke heritage values, bringing an authentic historical moment into a contemporary context. The other issue is that this audio-olfactory installation dominated this house-museum opening presentation and possibly overshadowed other artifacts and values.

On the contrary, in the olfactory reconstruction of Philip Johnson's Glass House interior, it was necessary to observe all the elements of olfactory aesthetics individually and in detail (Dushkina, 1995). Taking into account all the aspects that throughout history have influenced the olfactory aesthetics of the house, up to modern times, a specific "synthesis of time and place" would be created (Tošić, 2016: 95). However, synthesis of time and place, as such, does not exist, which is what Le-Duc's interpretation of time in conservation speaks of, in which he disputes "any given moment", and concludes that time is not a constant that determines authenticity, but influences the creation and modification of authenticity (Tošić, 2022: 140).

To sum up, the key aspects of implementing new technologies in architectural heritage presentation practice, which may implicate recommendations for further consideration, are:

1. Methodology of the previous analysis and assessments of authenticity sources;
2. A method of the new technologies' "implementation" in historical space; The relation between technology and architectural heritage elements;
3. How high-technology experience in historical space intertwined and/or separates historical from contemporary context;
4. Evaluating the multisensory, synaesthetic, immersive, and embodied experience of the historical space values, etc.

REFERENCES

- **Book:** Šuvaković, Miško. 2011. *Pojmovnik teorije umetnosti*. Beograd: Orion Art

- **Journal article:** Dessens, Henk. 1997. "From 'Remote' to 'Accessible': The Netherlands Maritime Museum." *Museum International*, 49:1, 6-10.

- **Journal article:** Јокилето, Јука. 2002. "Аспекти аутентичности." Гласник ДКС(26), 11-16.

- **Journal article:** Otero-Pailos, Jorge. 2008. "An Olfactory Reconstruction of Philip Johnson's Glass House." *AA Files*(57), 40-45.

- **Journal article:** Smith, Barry C. 2020. "Museums and the Embodied Mind: Sensory Engagement with Artworks and Architecture." *Archit. Design*, 90: 88-93.

- **Journal article:** Stovel, Herb. 2007. "Effective Use of Authenticity and Integrity as World Heritage Qualifying Conditions." *City & Time*, 2(3), 21-36. Accessed May 21, 2023. http://www.ceci-br.org/novo/revista/docs2007/CT-2007-71.pdf.

- **Journal article:** Tošić, Jovana. 2016. "Perfumed historic buildings: Issues of authenticity." *Spatium*, 92-99.

- **Blog entry:** Morozova, Anastasia. 2018."How to Use Augmented Reality in Museums: Examples and Use Cases" *Jasoren Blog*. Accessed May 15, 2023. https://jasoren.com/how-to-use-augmented-reality-in-museums-examples-and-use-cases/.

- **Blog entry:** Obrist, Hans Ulrich. 2013. "Lina Bo Bardi's Glass House" Accessed July 11, 2022. https://pinupmagazine.org/articles/architect-lina-bo-bardi-glass-house-in-sao-paulo-interior.

- **Blog entry:** Rigby, Claire. 2013. "The Insides Are on the Outside" Accessed Jun 17, 2022. https://artreview.com/review-the-insides-are-on-the-outside/.

- **Conference paper:** Dushkina, Natalia. 1995. "Authenticity: Towards the Ecology of Culture. Proceedings of the Nara Conference on Authenticity in relation to the World Heritage Convention", 310. Nara: ICOMOS.

- **Doctoral dissertation:** Tošić, Jovana. 2022. *Atmosphere issue in the context of contemporary presentation of built heritage*. Beograd: Arhitektonski fakultet.

- **Declaration:** ICOMOS. 2005. *Charleston Declaration on Heritage Interpretation*. Charleston. Accessed December 9, 2019. https://usicomos.org/wp-content/uploads/2019/12/2005-USICOMOS-International-Symposium-Charleston-Declaration.pdf.

- **Declaration:** ICOMOS. 1994. *The Nara Document on Authenticity*. Nara, Japan. Accessed July 9, 2022. https://www.icomos.org/charters/nara-e.pdf.

- **Declaration:** ICOMOS. 1964. *The Venice Charter*. Venice. Accessed July 9, 2022. https://www.icomos.org/charters/venice_e.pdf.

- **Declaration:** UNESCO. 1977. *The Operational Guidelines for the implementation of the World Heritage Convention*. Accessed May 9, 2023. https://whc.unesco.org/archive/out/opgu77.htm.