



“Virtual Reality and Cultural Heritage: Insights for place branding”

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Abstract

Virtual reality is playing an increasingly important role in the promotion of cultural heritage, proving to be a decisive tool for building the image of a territory and for place branding. The COVID-19 pandemic has accelerated the shift towards digital and interactive cultural experiences, in which the immersive dimension allows for a new interpretation of the relationship between visitors and the space they experience. VR contributes to the construction of identity narratives that influence the perception of authenticity and the symbolic representation of places. Starting from this theoretical framework, this work adopts a qualitative-exploratory approach to examine the function of virtual reality in place branding processes, focusing on the Pompeii Discovery case, a project that applies VR to the enjoyment of the archaeological site of Pompeii. The materials analysed include official digital and promotional content (website, videos) and reviews published. Preliminary results show that VR enhances users' experiential involvement and promotes a positive perception of the site's authenticity, while raising questions about the digital mediation of the experience, the risk of cultural sites becoming mere showcases, and whether users are motivated to use this technology. Finally, the study proposes the PAVO theoretical model, which describes virtual reality as a mediator between territorial identity and immersive environment, outlining the mechanisms through which VR can enhance the symbolic value of places and support sustainable cultural place branding strategies. The article thus aims to contribute to the debate on the potential and limitations of immersive technologies in the contemporary representation of cultural heritage.

Keywords *: Virtual Reality, Place Branding, Cultural Heritage



Introduction

In recent years, virtual reality has been establishing itself as a potentially transformative technology for cultural communication. This approach to digital worlds has allowed tourist destinations to move towards new methods of place branding, seeking to attract the attention and imagination of a global audience. In the management of heritage processes, virtual reality becomes a key factor in the creation of immersive narratives, which shape visitors' perceptions of that place and attribute new hybrid forms of tourist experience. Thanks to their rapid spread, these modern technologies have allowed for greater accessibility in terms of use, increasing and improving visitor engagement through new modes of spatial understanding. This has led to the advent of the active visitor paradigm, favoured by the high level of immersion and sense of presence offered by these technologies. However, the spread of these digital environments raises questions about the representation of places, authenticity and the boundaries between the real and the virtual. From this perspective, the globalisation of tourism has transformed the relationship between places and their cultural identities, which today compete within these imaginaries mediated by visual and media codes. Technological advances, in this context, also represent paradoxes: while on the one hand they enable innovative storytelling that increases curiosity, on the other hand, these digital representations are selective, altering the experience of the real context. It is precisely in this dimension that the interpretation of place branding, understood as the strategic construction of the territorial imagination, to attract visitors but also residents, is situated. This mediation, when combined with virtual reality technology, allows for the use of new expressive processes capable of constructing a new interpretative framework for territorial resources.

This study examines the function of virtual reality technology as an interpretative lens in shaping the perception of the image of a cultural destination, with particular attention to new ways of enjoying cultural heritage. The aim is to propose a critical reflection on the relationship between immersive authenticity and narrative fiction. The research is framed around the mapping of the most relevant Italian experiences in the application of virtual reality to cultural heritage, with the aim of distinguishing between public and private initiatives and situating them within the broader international panorama. Within this context, the initiative Pompeii Discovery has been selected as an emblematic case study, allowing for a critical reflection on how immersive technologies contribute (or not) to the processes of identity construction and heritage valorisation. The analysis has been further systematised through the development of a SWOT matrix, designed to assess both the opportunities and the limitations of virtual reality as a tool for cultural consumption and as a strategic resource for place branding.

Starting from the literature on the enjoyment of heritage in digital form (Champion, 2021), immersive storytelling (Bahng et al., 2023), and place branding (Skinner, 2021), this contribution offers a critical



reflection on the opportunities and limitations of virtual reality in the representation of places and as a new means of branding.

Theoretical background

In the context of an increasingly globalised society, in which the interconnection of technological processes becomes a fundamental means for the enjoyment and accessibility of its contents, the narration and representation of places does not become a simple product composed of images and symbols but rather determines the generation of a complex syntagm in the construction of territorial identity. This continuum between the real and the virtual redefines the role of virtual reality as a new device for remediating space and a new transformative tool in the relationship between user and experience. In this context, the theme of place branding becomes useful again, not only as a mere practice of territorial enhancement but also as part of a broader perspective of a new narrative perception composed of digital images, sensory experiences, and hybrid forms of participation. The evolution of place branding has its roots in the world of marketing, embracing different dimensions: from simple promotion to embodying identity and symbolic values. Place branding finds one of its main fields of application, if not its main domain of diffusion, in the tourism sector (Hankinson, 2004). The concept behind the policies and management of this phenomenon is the need to see place branding as a holistic element in which its meaning and essence are conveyed through stakeholders and citizens (Kavartzis, 2005). In some cases, territorial marketing strategies can take precedence over the real value to be conveyed, focusing more on the marketability of the product than on the concept of identity. For this reason, it is necessary to highlight the differences between place marketing and branding: the former expresses purely economic values, while the latter takes on a strong identity and emotional value, conveying the essence of a place (Skinner, 2008; 2011). At the heart of place branding is the idea of differentiating the tourism product through original communication about the place in order to attract new tourism markets (Glińska et al., 2016; Govers., 2011). The increase in tourist flows has influenced new destination management policies, in which cities, towns, and countries have employed tourism marketing strategies (Gartner, 2011), basing their visions on brand image and perception (Almeyda-Ibáñez & George, 2017). One of the major difficulties lies in the global competitiveness of places and the identities of local populations, which put multidimensional economic, political, and cultural processes to the test. As Skinner (2021) points out, even peripheral and decentralised places can implement regeneration strategies, especially in times of crisis, such as in the case of Covid-19, in order to readjust the territorial narrative to new strategic assets. Following this reasoning, new digital languages are key factors in building collaborative and shared practices in a territory. Identity building is based on a type of narrative that translates values and symbols into authentic experiences. Authenticity renegotiates its meaning on the subjective basis of the user and



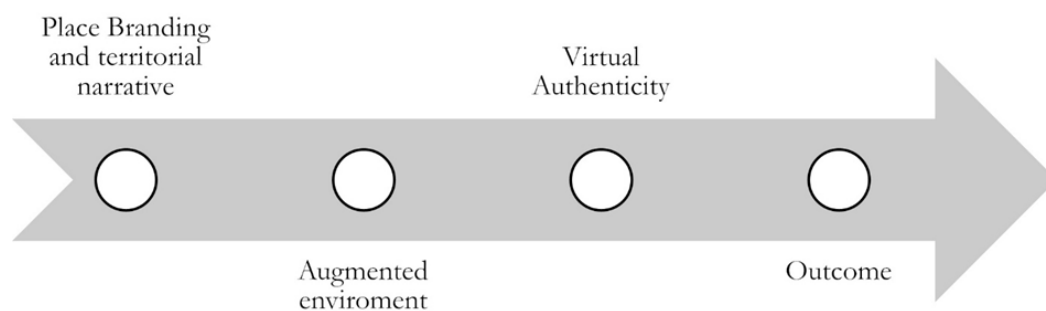
the different types of representation. These dialogical elements are consistent with the new perspectives introduced by virtual reality, which allows for a perceptual encoding of the digital environment. The representation of digital images using software and technological devices allows virtual reality not only to reproduce an environment, but above all to create multi-level experiences where visual reproduction becomes an agent of mediated authenticity. In recent years, we have witnessed a proliferation of immersive experiences using virtual, augmented, and mixed reality, in which the main critical issues are attributable both to the virtual representation of that place and, above all, to whether such experiences are guided by market logic, altering the aesthetics of the territory and making it more attractive. It is on these thematic axes that the challenge of the new immersive place branding is played out, in which engagement must be combined with the reality of the place. An innovative approach has been theorised by Eshuis & Ripoll González (2024), who have attributed multisensory experiential factors to place branding, in which the brand becomes both a performative and dynamic element. In addition, Lu et al. (2020) discuss the potential varieties in terms of the interaction between bodily experience, environment, and social context. Based on these implications, it can be inferred that the development of place-branding methodologies can find extensions in technologies that give rise to new ways of conceiving a destination and its resources. Taking up Smith's (2006) ideas and reapplying them to the theme of the possible relationships between place branding and the perception of the tourist experience, new technological inventions and their related innovation processes in the cultural field allow us to understand the change in the way cultural heritage is enjoyed, placing it as an expressive lever in new digital discourses. The application of immersive technologies represents an extension of experiential place-branding practices. In particular, virtual reality can help build the identity of a place in a multisensory and interactive way. These primary characteristics define virtual reality as a computer-generated environment in which the user can move and interact with the virtual environment (Vince, 2004; Guttentag, 2010; Gutierrez et al., 2008). Another key element of virtual reality is that it generates a high level of immersion, which is a fundamental criterion in influencing any user's sense of presence (Banos et al., 2004) by influencing subjective perception and taking on a constructive dimension (Wang, 1999). Some scholars (Cohen, 1998; Xie, 2003) argued that this constructive authenticity is based on subjective elements closely linked to the context and the participant. At the same time, other scholars have pointed out that virtual reality, despite its artificiality, is perceived as an absolute novelty and exciting by users (Kerawalla et al., 2006; Stangl & Weismayer, 2008). The convergence between digital storytelling and the representation of places is reshaping and redefining the relationship between visitors and destinations. In this context, virtual reality acts as a technological and cultural interface, capable of redefining the tourist experience and the construction of authenticity, establishing new dimensions for the interpretation of engagement and immersion in the field of place branding.



From place branding to virtual mediation: new narratives of place and heritage

The new challenges of the contemporary world are based on the ability to access the vast amount of information that travels within this global universe. In this context, immersive technologies act as new cultural mediators, laying the foundations for new ways of accessing and enjoying content. Naturally, within this process, virtual reality acts as a new communicative and cognitive process, capable of reorganising the relationship between the individual and the space they inhabit. In the tourism and cultural context, the rapid expansion of these technologies has enabled new modes of exploration, resulting in a hybrid experience that combines engagement prerogatives with new forms of territorial narration. The new digital transition positions VR as a tool suitable for simulating new forms of presence, offering place branding as a laboratory for experimentation in the construction of new engaging territorial narratives. After the pandemic crisis, the adoption of this technology has become essential for providing a new type of access to and knowledge of the territory. Museums and archaeological sites themselves were the first to experiment with virtual solutions, defining new dynamics of perception and participation in cultural heritage. In some ways, the pandemic crisis has highlighted the need for a new approach to the enjoyment of cultural heritage, aimed at creating more refined and innovative virtual narratives with the possibility of expanding their target audience. From this perspective, the dialogical relationship between place branding and virtual reality can be viewed in two ways: on the one hand, as a strategic tool for communicating the symbolic values and identity of a place or cultural heritage, strengthening the perception and image of the brand; on the other hand, as a possible vehicle for exhibiting or showcasing places or cultural assets, favouring profit-oriented approaches to cultural enhancement. A current challenge, therefore, is to balance the potential and level of involvement of virtual reality with ethical, respectful use that can support proper territorial development or greater enjoyment of cultural heritage, without reducing it to a simple aestheticized tourist product. Building on these theoretical lines, the PAVO model (Fig. 1) is proposed, which conceptualises how virtual reality should mediate the experience of a place or cultural asset, recreating a new type of space and experience, contributing to the redefinition of narratives.

Figure 1- Pavo model



Source: Authors' elaboration



In the first level of this model, the set of identities and values of a place and/or its territorial resources are the main levers on which territorial place branding is based through engaging storytelling. The second level consists of this immersive environment, i.e., the virtual environment created by the software that enables the use of this technology. The third level is virtual authenticity, i.e., the experience mediated by virtual reality tools (headsets, projectors, screens). Finally, we have the outcomes, i.e., the post-experience that allows us to reinforce the image of a place/cultural asset, leading to a new type of engagement. Of course, this model, albeit theoretical, can be applied to understand how the new use of cultural sites and assets will affect the economy of local areas in the future, with a view to increasing tourist attraction and positioning the local brand, thereby boosting their competitiveness in this huge interconnected global arena. These prospects will certainly improve the quality of goods and services, expand our knowledge or make certain cultural heritage sites more accessible, but at the same time, this temptation to expose and showcase them may attract financial investments aimed at maximising profit, without any real concern for the well-being of the population and those who visit that destination. Furthermore, the choice to construct scenarios in digital environments raises questions about what will be selected to increase engagement and make the experience more real, with the risk of constructing pre-constructed narratives. Applying these concepts, it is emphasised how virtual reality can be understood as a reinterpretation of the experience in historical places, transforming physical spaces into immersive environments and allowing greater enjoyment of cultural heritage. Furthermore, VR is not only a tool for visual reconstruction but can also be configured as an act of mediation and interpretation that constructs narratives of the territorial imagination, defining the identity and symbolic value of that place. These reflections connect with the observations of Foka et al. (2021), who point out that the digital mapping of cultural heritage allows for the creation of new immersive narratives, similar to those found in classic texts describing places and objects. The experiential value conveyed by VR can be expressed through two types of engagement: the first, emotional engagement, produces perceptions of interest and empathy in the use of this technology; the second, experience engagement, promotes interaction with objects in virtual space and encourages autonomous discovery of cultural content. In our case study, Pompeii Discovery represents the ideal model for understanding how immersive digital itineraries offer an experience that integrates the enjoyment of archaeological heritage with new modes of immersive perception, transforming the archaeological site of Pompeii into a dynamic place at the centre of new narratives. From this perspective, VR acts as a strategic lever for place branding, combining the values of the place, experiential engagement, and new ways of enjoying cultural heritage.

Materials and Methods

The methodological design of this study was articulated in four interrelated phases, aimed at investigating the contribution of immersive technologies to place branding and cultural heritage valorisation. The first phase



consisted of a systematic review of online sources, carried out to map existing initiatives in the Italian context. The search strategy was based on the formulation of specific queries that combined controlled terms and free-text expressions related to virtual reality, tourism, cultural heritage, and place branding. The queries were applied across multiple academic and grey literature repositories, institutional websites, and digital platforms. To ensure relevance, only projects explicitly oriented towards heritage valorisation and destination promotion were retained, while initiatives exclusively entertainment-driven were excluded. In the second phase, the initiatives identified through the review were synthesised into a comparative grid, distinguishing between projects promoted by public actors – such as regional or national cultural programmes, often co-financed by European structural funds – and those developed by private operators, including companies, start-ups, and cultural enterprises specialised in immersive technologies. This classification enabled the analysis of the different rationales underpinning the initiatives, contrasting logics of accessibility and collective interest with those of market orientation and experiential innovation. The third phase involved a case study analysis, focused on Pompeii Discovery. This initiative was selected as it represents an emblematic application of VR to the enjoyment of archaeological heritage, combining technological innovation with heritage interpretation. The materials examined included the official website and promotional videos produced by Pompeii Discovery, which were analysed qualitatively in order to identify the main features of immersive storytelling, the strategies adopted to convey authenticity, and the representational choices through which the identity of the site is constructed. Finally, a SWOT analysis was developed to critically assess the potential and limitations of immersive place branding practices. The evaluation was guided by three interpretative dimensions: the degree of user engagement, the consistency of narrativity in transmitting identity values, and the communication style adopted in representing the authenticity of the cultural site. By integrating a systematic review of existing practices with the in-depth exploration of a single emblematic case, the study aims to generate both general insights and context-specific reflections on the relationship between virtual reality and place branding.

Results

The mapping and comparative grid elaborated in the first two phases of the research revealed that the use of immersive VR/AR applications in the Italian cultural heritage sector was still relatively limited. In many cases, institutions prioritised the digitisation of collections or the creation of basic virtual tours rather than developing fully immersive environments with head-mounted displays or interactive 3D reconstructions. This finding pointed to a field still in its early stages, where experimentation was often confined to flagship projects or pilot initiatives.

Table 1 reports the main initiatives identified, distinguishing between public, private, and hybrid promoters. Public projects included *Sicilia Virtual+*, the MAV in Ercolano, initiatives by the Reggia di



Caserta, and the Parco Archeologico di Ercolano. Private or hybrid initiatives included *Pompeii Discovery*, the *Colosseum VR Experience*, and the *Vasari Experience* in Matera.

Table 1 – Italian VR initiatives for cultural heritage

INITIATIVE	LOCATION	TECHNOLOGY	PROMOTER	KEY FEATURES
POMPEII DISCOVERY	Pompeii, Campania	VR with headsets	Private	Onsite immersive experience with 3D historical reconstructions; strong focus on engagement and emotional appeal.
SICILIA VIRTUAL+	Archaeological sites across Sicily	AR + VR (mobile app + onsite)	Public (Regione Sicilia, ERDF funds)	Regional multi-site platform; enhanced accessibility and digital valorisation of cultural heritage.
CIRCO MAXIMO EXPERIENCE	Rome, Lazio	AR + VR onsite	Public (Roma Capitale/Zètema)	Eight-stop immersive itinerary; historical reconstruction of the Circus Maximus with onsite interaction.
MAV – VIRTUAL ARCHAEOLOGICAL MUSEUM	Ercolano, Campania	VR/digital reconstructions	Public-private (Fondazione CIVES)	Museum entirely dedicated to virtual reconstructions and immersive storytelling of Vesuvian heritage.
REGGIA DI CASERTA – “LA REGGIA IN DIGITALE”	Caserta, Campania	AR + VR (onsite and online)	Public (Italian Ministry of Culture – Reggia di Caserta)	Immersive reconstructions of royal apartments and gardens; integration of VR/AR with institutional digital projects.
PARCO ARCHEOLOGICO DI ERCOLANO – VIRTUAL TOUR VR	Ercolano, Campania	VR/interactive 3D	Public (Italian Ministry of Culture – PAE)	Immersive onsite and online contents bridging physical and virtual experiences.
COLOSSEUM VR EXPERIENCE	Rome, Lazio	VR with headsets (onsite)	Private	Immersive reconstructions of the amphitheatre and daily life scenes; managed by tour operators and tech start-ups.
VASARI EXPERIENCE – MATERA TOUR	Matera, Basilicata	VR/AR immersive (headsets and digital platform)	Private (CONFORM S.c.a.r.l. with partners)	Immersive reconstructions and digital storytelling of the Sassi and rupestrian heritage; accessible onsite and online.
DOMUS AUREA EXPERIENCE	Rome, Lazio	VR immersive with headsets	Public (Parco Archeologico del Colosseo)	Immersive reconstructions of the Domus Aurea environments and decorations, available during guided visits

Source: Authors' elaboration



Among these, *Pompeii Discovery* was selected as a case study, as it represented an exemplary application of immersive technologies to archaeological heritage, combining digital innovation with site interpretation. As discussed in the theoretical framework, virtual reality can be understood within the logics of the *experience economy* (Pine & Gilmore, 1999), functioning not only as a technological tool but also as a narrative and identity device. In this sense, Pompeii Discovery offers a clear example of how immersive technologies can strengthen the experiential dimension of cultural tourism while simultaneously contributing to the construction of territorial branding. The analysis examined the official materials of the initiative, including the website (<https://www.pompeiidiscovery.com/>), social media profiles — particularly Facebook (Pompeii Discovery Official) and Instagram (@pompeii.discovery) — as well as the available promotional videos. Communication consistently revolved around the idea of “*time travel*,” offering visitors the promise of experiencing Pompeii as it was before the eruption of 79 AD. The itinerary touched upon the most iconic spaces of the archaeological site – from the Forum to the Basilica, from the Stabian Baths to the House of the Faun – thus emphasising symbolic and globally recognisable landmarks. The visitor’s experience is not mediated solely by VR headsets but also by certified guides, who serve as interpreters bridging the digital and physical dimensions. This hybrid model, which combines human and technological mediation, recalls Richards’ (2011) notion of creative tourism, in which co-presence and storytelling enhance engagement and the co-construction of meaning. Authenticity was conveyed through two main strategies. First, technological fidelity was highlighted, with promotional materials emphasising the “*completely renewed visual quality*” of the reconstructions, designed to enhance realism. Second, spatial anchoring reinforced credibility, as the VR experience took place within the archaeological park itself, allowing visitors to compare the ruins on site with the digitally reconstructed environments. On Instagram, authenticity is further reinforced through images of visitors wearing headsets onsite and captions such as “history comes alive” which exemplify Wang’s (1999) concept of existential authenticity, based on personal engagement rather than historical precision.

The identity of the site was reformulated as a narrative and immersive environment, where the promise was to “*open one’s eyes*” and see the city as it once was. In this way, Pompeii was positioned as a global brand combining archaeological heritage with the potential of immersive technologies. The slogan “*No need to imagine, just open your eyes*” epitomised this branding strategy, in which imagination was replaced by mediated direct experience. The Instagram profile reinforced this construction through a curated visual language and the use of international hashtags (#PompeiiDiscovery, #VirtualRealityTour), which placed Pompeii within global digital tourism networks and strengthened its international positioning. Overall, *Pompeii Discovery* emerged as a device



that transformed the archaeological visit from passive observation into active immersion, reinforcing both visitor engagement and memorability. At the same time, the focus on emotional and spectacular impact revealed a tendency towards simplification of the site’s historical complexity. Nevertheless, the concentration of resources and communication strategies on a world-renowned attractor confirmed the ability of virtual reality to act as an amplifier of symbolic capital and as a tool for territorial branding. The case of *Pompeii Discovery* thus illustrated how immersive applications in Italy tended to develop around sites of high international visibility, functioning as experimental laboratories for identity narratives that combined authenticity, spectacle, and technological innovation.

As a conclusion to the case study, a SWOT analysis was conducted to synthesise the main strengths, weaknesses, opportunities, and threats of *Pompeii Discovery*, focusing on the three analytical criteria of user engagement, narrativity, and communication style. This exercise provided a framework for assessing how immersive storytelling contributed to visitor experience and place branding, while also highlighting the structural limitations and potential developments of such initiatives.

Table 2 – SWOT Analysis of Pompeii Discovery

Strengths	Weaknesses
High visitor immersion through VR headsets	Limited scalability (onsite only)
Hybrid format combining VR with guided tours	Accessibility barriers for some audiences
Strong experiential storytelling and “time travel” narrative	Simplification of complex historical narratives
Opportunities	Threats
Integration with online platforms to reach wider audiences	Technological obsolescence of devices
Collaboration with research institutions for richer content	Risk of over-commercialisation
Development of hybrid onsite/remote formats	Competition from similar VR heritage offers

Source: Authors' elaboration

Discussion

Despite the limited number of VR initiatives identified at the national level (Table 1), the results indicated that the market for immersive technologies applied to cultural heritage was growing and



diversifying. However, this growth appeared uneven and strongly biased towards major heritage attractors, leaving smaller sites excluded from experimentation. Local museums and minor archaeological parks—such as Paestum, Ostia Antica, or the Etruscan sites of Tarquinia and Cerveteri—still rely primarily on traditional interpretative panels and 2D digital content, with limited or no integration of immersive systems. Such concentration not only amplified existing territorial imbalances but also reproduced cultural inequalities, reinforcing the global visibility of already dominant destinations while marginalising less well-known heritage assets. Instead of fostering the democratisation of access, VR risked consolidating asymmetries in cultural representation. The distinction between public and private initiatives also highlighted problematic trends. Public projects tended to frame VR within educational and accessibility strategies, yet their limited resources often confined experimentation to pilot formats with modest technological depth. Private operators, by contrast, invested in more spectacular and emotionally charged experiences, but frequently did so at the cost of privileging promotional aims over scholarly rigour. This duality revealed a structural weakness: VR projects in the heritage sector often oscillated between underfunded institutional initiatives and commercially oriented ventures, with neither approach fully capable of addressing issues of long-term sustainability, inclusivity, and historical depth.

The case of *Pompeii Discovery* exemplified these contradictions. Although it achieved good levels of user engagement, the reliance on VR headsets and onsite presence excluded categories of visitors facing physical, cognitive, or economic barriers. Rather than overcoming the digital divide, the initiative risked reinforcing it. Moreover, the immersive reconstructions, while visually striking, privileged iconic and spectacular spaces, thereby simplifying the historical complexity of the site. This aestheticisation of the past echoed MacCannell's (1973) notion of staged authenticity and revealed how VR can transform heritage into consumable spectacle rather than nuanced interpretation. The emphasis on “*time travel*” and slogans such as “*No need to imagine, just open your eyes*” further exemplified how authenticity was constructed as an effect of technological mediation rather than grounded in scholarly validation.

On social media, the promotional logic was even more evident. Instagram posts with hashtags such as #PompeiiDiscovery and #VirtualRealityTour contributed to the site's global branding but offered little educational content or critical engagement. The predominance of marketing language over interpretative discourse risked framing Pompeii primarily as a tourist entertainment product. This imbalance raised questions about cultural legitimacy and suggested that VR was being employed more as a branding device than as a medium for heritage mediation. Technological dependence represented another critical limitation. The experience relied entirely on specific devices (Gear VR by Oculus)



that were costly, required regular maintenance, and were subject to rapid obsolescence (Amico & Felicetti, 2024). This vulnerability exposed projects such as *Pompeii Discovery* to sustainability risks, since upgrades and replacements demanded significant investment. The lack of integration with online platforms or open-access content further constrained scalability, limiting the initiative's capacity to reach broader and more diverse audiences.

The analysis as a whole, therefore, underscored the ambivalence of VR in heritage contexts. While initiatives such as *Pompeii Discovery* demonstrated considerable strengths in immersive storytelling and offered opportunities for future collaboration, they also revealed significant weaknesses and threats. Barriers to accessibility, restrictions on scalability, the simplification of complex historical narratives, the fragility of technological infrastructures, and the predominance of commercial discourses all pointed to an underlying fragility in current applications. Taken together, these aspects suggest that VR in cultural heritage amplifies visibility and engagement but often at the expense of inclusivity, historical nuance, and long-term sustainability. Rather than transforming cultural mediation in a structural way, it frequently reinforces market logics, producing spectacular yet unevenly distributed experiences. For this reason, critical evaluation is indispensable: without a shift towards more inclusive, research-based, and sustainable approaches, VR risks remaining confined to a niche of high-profile attractions, operating more as promotional entertainment than as a genuine tool of cultural valorisation.

Conclusions

This study highlighted how virtual reality is a useful tool for promoting cultural heritage and building a regional image, but also plays a role as a complex technology. The case of *Pompeii Discovery* emphasised how VR can transform the archaeological experience into an immersive one, consolidating visitor engagement and providing a narrative consistent with the symbolic identity of the place. The SWOT analysis revealed significant strengths, such as the high level of user engagement and the ability to create a strong emotional impact through immersive narrative strategies and time-travel-oriented storytelling. However, some critical issues emerged, including the simplification of historical complexity and technological dependence, which limit the communicative depth and scalability of the experience. In terms of the three analytical criteria used, user engagement shows high results but is closely linked to the sensory aspect rather than to real cognitive participation. Narrativity, although effective in generating curiosity, tends to favour spectacle over interpretative depth. Finally, communication style emerges as a promotion-oriented element, highlighting a conflict between branding logic and cultural aims. This evidence validates the dual



nature of VR as a technology capable of enhancing the symbolic value of places, but at the same time, it risks excessive aestheticization and commodification of heritage. Considering these results, VR presents itself as a new immersive place branding technology, in which the interaction between sensory experience, storytelling and authenticity becomes fundamental for the construction of a shared territorial identity. However, for this capacity to be translated into cultural value, it is necessary to develop initiatives that combine scientific rigour, accessibility and social inclusion. The PAVO model proposed in this study provides a theoretical framework for understanding how virtual reality can mediate between identity, immersive environment, and authenticity, conceiving forms of engagement oriented towards knowledge rather than just entertainment. Looking ahead, future research should expand the comparative analysis to different cases and assess the long-term impact of VR, verifying whether these experiences facilitate greater cultural awareness or remain anchored to consumerist logic. The main challenge of cultural place branding in the immersive era lies in this balance between technological innovation, storytelling and authenticity.

Declarations

Data Availability Statement : All data supporting the findings of this study are derived from publicly available online sources, including institutional websites and social media content (Facebook and Instagram posts), cited in the text. No proprietary or confidential data were used.

Conflict of interest statement: The authors declare that there is no conflict of interest

Author Contributions: All authors contributed to the conception and design of the study. Enrico Nicosia and Daniela La Foresta wrote the Introduction and Conclusions. Giuseppe Rombo wrote the sections Theoretical Background and From Place Branding to Virtual Mediation: New Narratives of Place and Heritage. Ilaria Bruner was responsible for the Materials and Methods and Results and Discussion sections. All authors contributed to the critical revision of the manuscript and approved the final submitted version.

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