Archeologia e Calcolatori
37.1, 2026, 351-368
doi 10.19282/ac.37.1.2026.18

VIRTUAL MUSEUMS IN WAR AND POST-WAR CONTEXTS AS A TOOL FOR CULTURAL REBIRTH: THE SEGLAMEN PROJECT

1. Introduction and objectives

Virtual museums have represented an important turning point in the enjoyment and comprehension of Cultural Heritage, since their first use, during the nineties (Caravale, Moscati 2021, 130-133). Starting from the initial format and theoretical syntheses of the so-called 'virtual archaeology', which later rose to the rank of a true discipline (Forte, Williams 2003), during the 2000s there has been, on one hand, a theoretical refinement of the approach to digital restitution of contexts according to standards of reliability (Beacham *et al.* 2006; Forte *et al.* 2006; Viscogliosi *et al.* 2006), and, on the other, a reflection on the effectiveness of the tool from an educational and museum perspective (Antinucci 2007; Sylaiou *et al.* 2009). Among the various examples available on the use of virtual museum applications, a focus on war or post-war contexts is pertinent. In these cases, the sense of appropriation of cultural heritage, characteristic of the museum experience, needs to be enhanced to recover the memory of material and immaterial elements that have been destroyed or damaged, but with particular attention to ensure that this sense of belonging does not fuel nationalism and hostility, being only translated into a drive for dialogue.

This process has undoubtedly been made possible thanks to the ability of digital media to mediate personal experiences and enable others to connect to them (Van Dijk 2007). At the same time, a virtual museum can serve as a tool for visiting and learning about an area and its traditions when tourism is not accessible for security reasons. Recent experiences in wartime contexts include the Palestinian Museum, which tells the Palestinian history and culture through virtual exhibits, audio guides and digital data accessible to all, with the goal of preserving Palestinian cultural heritage and making it globally usable, especially in times of crisis such as the current one (www.palmuseum.org). Another example is the National Museum of Aleppo, a digital museum dedicated to the cultural heritage of Aleppo, a Syrian city severely damaged by more than a decade of civil war. In a similar way to the Palestinian one, this museum offers virtual exhibits, 3D reconstructions and other multimedia content, with the aim of preserving cultural heritage and raising awareness of the situation in the city and region (www.virtual-museum-syria.org).

Wars, however, are not the only cause of heritage risk, as in the case of the role played by virtual museums in Mosul, Iraq, and Palmyra, Syria.

These two cities have been occupied relatively recently by the Islamic State, Mosul between 2014 and 2017 and Palmyra in 2015, suffering a series of destructive events caused by the explicit aim to erase part of the history and cultural heritage of an area. Thanks to virtual musealisation, some of the cultural heritage relating to these or other critical situations has managed to survive (Grün *et al.* 2004; Cultraro *et al.* 2009; Moscati 2007; Denker 2017; Bazlamit 2018; Khunti 2018; Rizvic *et al.* 2019). These virtual museums not only ensure the usability of heritage, but also deliver important messages such as the pursuit of peace, reconciliation, and the memory of victims.

These are just a few examples; there are many other ongoing projects or future initiatives to create virtual museums in conflict-affected areas. They are made possible through the use of innovative technologies, such as 3D scanning and virtual reality, to document and preserve cultural heritage even under difficult conditions. Nevertheless, given the current debate on the topic, such initiatives must be set up according to a close relationship between researchers and local communities (Stobiecka 2020). In this context we present the project of the Virtual Museum of Seglamen (VMS) in Ethiopia, in an area heavily afflicted by war. The project was developed as part of a postgraduate school thesis. The idea was later developed into an actual project, and institutional discussions are underway to assess its potential implementation (Filosa 2024).

2. Materials and methods

2.1 *The Seglamen Virtual Museum project*

Approximately 12 km SW of Aksum, the ancient capital of the kingdom of the same name, in the Tigray region of northern Ethiopia, lies the village of Seglamen (Fig. 1). This small settlement is currently inhabited by a vibrant farming community engaged in the harvesting of teff, a cereal of primary importance in the local economy (Glyn Jones 2010; Gebrehiwot, Ndinda 2024). Seglamen is the location of a site that includes both the ancient settlement and an associated necropolis; significant archaeological excavations have been underway since 2010, conducted by the University of Naples L'Orientale and ISMEO-The International Association for Mediterranean and Oriental Studies. The project is conducted in collaboration with the Department of Archaeology and Heritage Management of Aksum University (AU) on the basis of a formal agreement launched in 2009 and aimed at conducting joint research programs and at providing undergraduate students in archaeology with theoretical and practical training in archaeological survey, excavation procedures and laboratory analysis (Sernicola 2019).

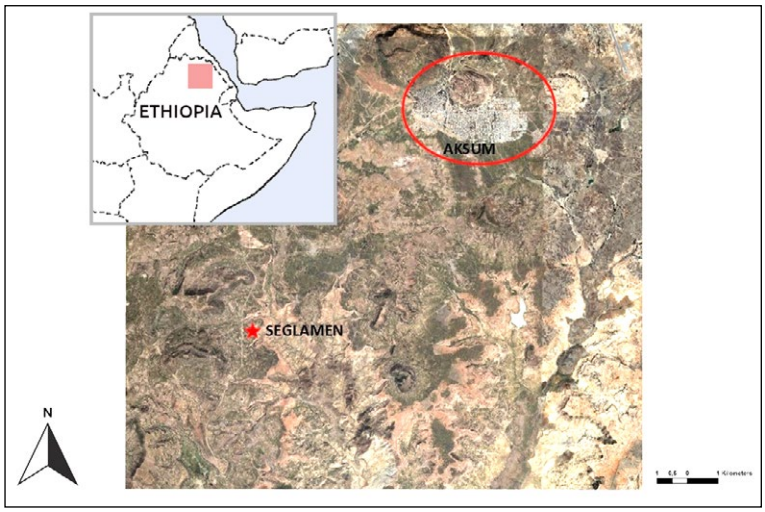

Fig. 1 – Geographical location of the Seglamen area.

These activities allowed the collection of important archaeological and ethnographic data on the economy, ritual practices, and the history of ancient settlements in the region. Seglamen, like the hill of Beta Giyorgis located nearby Aksum, is a key site for studying the formation of Aksumite culture and the complex cultural dynamics that characterized the area between the 1st millennium BCE and the 1st millennium CE (Fattovich 2008, 25; Sernicola 2021). Some of these aspects are still partly reflected to this day in the traditional knowledge systems of the communities inhabiting the region, allowing research themes to take into account elements of cultural continuity. This cultural heritage, which is expressed not only in material culture but also in its intangible component, needs to be safeguarded, but also to be further investigated to address still-debated questions, such as the period of formation and the crisis that led to the decline of Aksum and its subsequent fragmentation between the 7th and 8th centuries CE (Bard *et al.* 2014).

The social and cultural fragmentation is a defining aspect of the political history of Ethiopia and Tigray, as well as one of the reasons why the region has lived in a climate of tension for several decades, often resulting in civil wars that have caused millions of deaths and refugees, and significantly hindered the economic development of the country, trapping it in a state of perpetual potential crisis and poverty. In this sense, the data provided by the United Nations Refugee Agency (UNHCR 2023, https://www.unhcr.org/emergencies/ethiopia-tigray-emergency) are alarming: it estimates that since the beginning of the latest conflict in November 2020 (a conflict that

continues to evolve), about 70,000 people have been forced to seek refuge in other countries, such as Sudan and Eritrea, and Amnesty International reports numerous cases of rape, sexual slavery, extrajudicial executions, and looting by the Eritrean army in Tigray (Amnesty International 2023), with some incidents also affecting the Aksum museum, which houses materials from the Seglamen site. These recent events have heavily impacted the community of this village and the inhabitants of Aksum, severely testing the social stability of the region. The population has yet again had to face critical situations, resulting in humanitarian, health, and economic emergencies (on July 28, 2022, Ethiopia declared bankruptcy), while the cultural heritage has been repeatedly threatened and damaged by bombings and looting.

Based on all these considerations, the case of Ethiopia in general, and particularly that of the Seglamen site, requires urgent interventions for the safeguarding of its cultural heritage. Currently, the most effective option available is the creation of one or more virtual museums to achieve this goal. It would not only allow for the preservation of evidence and valuable objects along with related information but could also serve as a tool to overcome social fragmentation and cultural barriers. Through the sharing of digital resources, it could contribute to shaping a common cultural identity, essential for nation-building and consolidation, and to create a united country that can leverage tourism as an important resource for its development.

As such, the Seglamen area is a case study well-suited for a virtual museum project, as it is affected by both negative aspects, such as a society threatened by war and strong social fragmentation, and positive ones, such as a rich historical-archaeological heritage and the presence of humanitarian and university organizations engaged in the area, as well as the availability of infrastructure such as schools and a favourable geographic position for the creation, in the future, of a physical museum structure as a possible follow-up of the virtual one. Moreover, the project fits well into the larger national digitisation project of Ethiopian Heritage Authority and in the post-conflict initiatives, both national and international, of requalification and promotion of the site of Aksum. This initiative can in fact represent an example of absolute originality, since in the entire Horn of Africa there are currently no virtual museums, beyond a few examples, of which the only noteworthy case is the Horn Heritage, an online platform dedicated to the virtual valorization of the Somali heritage. (https://www.hornheritage.org/).

2.2 *The opportunity*

The proposal to plan a virtual museum for Seglamen stems from the importance of the potential outcomes and the challenge posed by the various elements of the project. Enjoyment, accessibility, accuracy, cultural safeguarding, and diversification of information are just some of the keywords that

can guide the design strategies of this museum. The goal is to create a reality that goes beyond the simple three-dimensional reproduction of a museum or a collection, providing a tool that allows users to virtually interact with the works and immerse themselves in real-life scenarios recreated through technologies such as photogrammetry, 360° videos, and 3D modelling. Thanks to the creation of interactive multimedia scenarios, the project aims to make the public's experience an opportunity to actively engage with the works, gaining valuable information from perspectives different from those of a traditional museum exhibition.

As outlined, the choice of Seglamen as a case study derives from a careful analysis (historical, social, and political) and direct knowledge of the research project location. As such, the aim is to preserve the cultural and archaeological characteristics of the site while promoting concepts of social cohesion essential for the formation of a shared national identity. The ability to design a flexible museum, adapting it to the visitor needs in terms of age, language, and educational background, reflects the commitment to overcoming the social and ethnic barriers present in the nation. Ultimately, the ethnic and cultural diversity of Ethiopia, with about 80 ethnic groups, 90 languages, and numerous religions (mainly Orthodox and Muslim), as well as the severe crisis the country is experiencing, are well represented by the context of Tigray and the city of Aksum, of which Seglamen is an important and active component. Specific studies (Negash, Tronvoll 2000; Tronvoll 2024), focusing on the dynamics between the central government and the various ethnic groups of the country, examine the Ethiopia-Eritrea war, analysing the political and social dynamics that influenced the conflict, thanks to an in-depth overview of ethnic politics, identity construction and regional conflicts. They address the wider political context and the internal rivalries, including those involving the Tigrayans, which shaped the relations between the central government and the country's ethnic groups, contributing to the escalating tensions between Ethiopia and Eritrea. The Seglamen Virtual Museum project has been conceived taking into account all these implications.

3. Results: the Seglamen Museum Project

3.1 *The museum framework*

Although the creation of a virtual museum outside the traditional framework of musealisation is an ambitious process and involves significant investment, it offers high potential for creation, especially thanks to the consolidated relations with the local community and with the local authorities established by the University of Naples 'L'Orientale' and ISMEO-The International Association for Mediterranean and Oriental Studies, which have been active in the area for over ten years, fostering the building of solid

ties, and providing a fundamental basis for the development of scenarios and collections. Thanks to the presence of these organisations, it is possible to leverage a valuable body of information that will be used for the virtual museum. Their contribution in practical support, through the establishment of scholarships or internship projects, should not be underestimated. These initiatives represent a winning strategy to reduce costs, while offering the opportunity for students and young researchers to participate in a relevant international project, aimed at safeguarding global cultural heritage and promoting messages of cohesion and peace, which are fundamental to support countries in facing difficult challenges.

In the long term, it is essential to plan a sustainability strategy that includes the continuous software maintenance, the updating of digital resources and the training of those involved in the project. Integrating the virtual museum into a cultural and economic development plan for the region, which promotes tourism and the enhancement of local heritage, will help create economic opportunities for the community. The establishment of collaborations with public and private entities, along with the integration of the project into educational and awareness-raising activities, will ensure that the virtual museum remains a living and dynamic resource, capable of growing and adapting to new cultural and social needs.

The methodological approach adopted for the virtual museum planning consists of four main stages: content analysis, survey and digitisation, data modelling and integration, and finally the development of the user interface. To create a demonstration example of the virtual museum project, these steps were followed on a small scale, limited to two sample objects, thus creating an "alpha" prototype of the overall process that can then be scaled to large collections. The different phases and their small-scale applications are outlined here.

During the first phase it was essential to identify, within the vast collections, the artifacts most in tune with the project's goals and philosophy. For the alpha version, two items in particular were selected: a funerary stele from site SG1 (Fattovich *et al.* 2010) and a 'black-mouthed' vase (Black Topped Ware) (Fig. 2). These two objects are part of a tradition that has spread far beyond the physical boundaries of Ethiopia and Eritrea (Ona Culture), Black-mouthed vases, for example, are present throughout the Nile Valley from the 4th millennium B.C. (Fattovich 1980) while funerary *stelae* are representative of many cultures, ranging from Africa to the Levant, the Near East, and almost all of Europe (Fattovich 1987).

The second phase involves the creation of 3D models and their digitisation within real landscapes, reconstructed through the technique of photography and 360° video shooting in collaboration with the local community. This process will make it possible to develop extremely detailed and realistic

Fig. 2 – Example of Black Topped Ware from Seglamen, 900/800 BC.

models, offering users the opportunity to fully immerse themselves in the proposed scenarios and to enable an active immersive experience. The models, obtained through photogrammetry or the use of LiDAR performed directly at the site, will then be enriched in the third phase with a series of information aimed at identifying data intrinsic to the object and its context, such as areas of production or places of discovery. This varied and layered information is presented to users through various forms of interactive digital media, including descriptive cards, photographs, video and audio media, and represents the product of careful bibliographic analysis and surveys conducted directly at the site and the surrounding area during the various excavation campaigns. For the alpha version, 3D models of the two selected objects were created using photogrammetric techniques, while generative Artificial Intelligence (AI) was used for the setting and landscape reconstruction (see below).

The entire process of data management and processing was guided by taking user profiling into account. The key factor is to provide information appropriate to the user's needs and level of knowledge, thus grading the experience. It requires data harmonization work (standardization process) and a search for a format that would allow access to the information without

Fig. 3 – Homepage of the Virtual Museum of Seglamen in the alpha version.

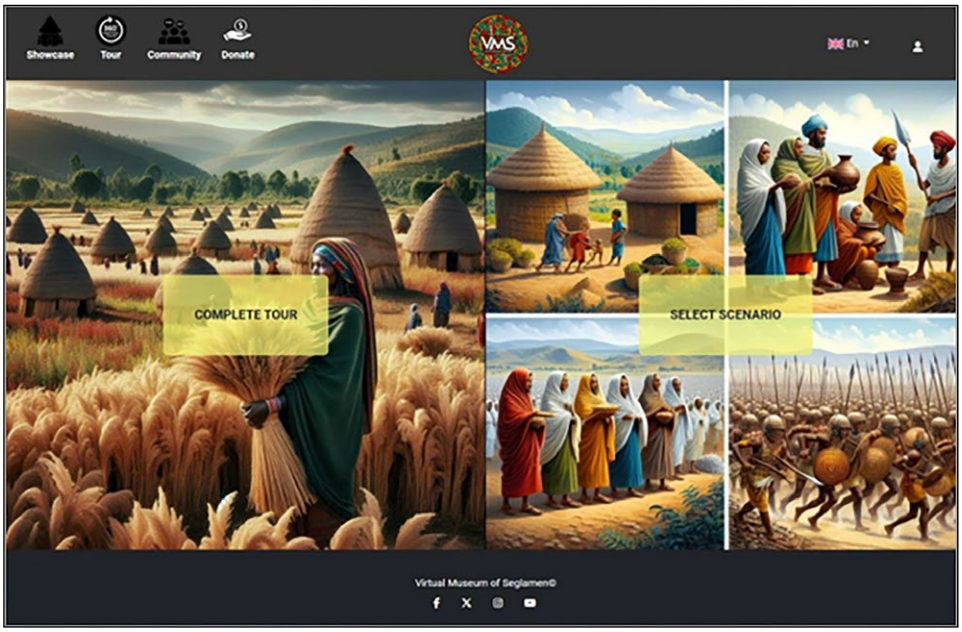

Fig. 4 – Tour area, detail of the two modes proposed in the site.

subtracting relevance to the objects. The last step is the development of the user interface (UI); this is a crucial moment in the realization of the virtual museum, as it constitutes the point of contact between the user and the experience offered by the digital museum. For the alpha version, the UI was designed through Javascript tools and Bootstrap 5 libraries, with the goal of being intuitive, efficient, and pleasant to use (Fig. 3).

Several key aspects were considered during the alpha version design process, including user experience (UX), which was designed to be easy to use and navigate, meeting the needs of users. To this end, accessibility guidelines were followed to ensure that the user interface is usable by people with disabilities (WCAG 2023). Maintaining consistency was an equally important aspect, as the UI must preserve uniformity throughout the virtual museum, using the same style, icons, and terminologies across all pages and functions. This aspect is also reflected in the aesthetics of the museum, which was designed to be pleasing with the identification of appealing colours, fonts, images and sounds that match the theme of the physical museum (Fig. 4).

The design also considered interactivity parameters, with the goal of making the site engaging through the use of elements such as animations, videos and games. Finally, compatibility with different devices was provided through responsive design, ensuring proper viewing from computers, smartphones and tablets. This is useful in highlighting how user interface development is a constantly evolving process where additional testing with users and analysis of feedback will be essential to further improve the user experience of the Seglamen Virtual Museum and to ensure greater inclusion and continued reduction of barriers.

3.2 *Museum content and design, accessibility, profiling process*

Upon accessing the museum page, users are guided through two key steps: language selection (including one for hearing impaired users) and choice of profiling level for access. This allows users to opt between two different paths: one aimed at adults (students, researchers, tourists) and one designed specifically for children. Having completed this step, the visitor will have access to the museum's home page and a persuasive 'Call to Action' (CTA). This guides the visitor through the site and immerses him or her in the beauty of the museum. By clicking on the 'sign-up' button, the new user is invited to fill out a form with simple, targeted fields, thus offering a personalized experience. All the profiles are distinguished by a specific iconography and have a question mark located in close proximity to the icon, acting as a 'help button'.

After 'logging in', the user has the option, by clicking on the black-coloured icons placed at the top (navigation bar), to access several functions:

the Showcase, the Tour and the Community Area. The Showcase plays a crucial role in the virtual museum: within this area, the user can select from a number of objects, displayed in 3D within a monochrome background (the program offers the opportunity to choose from different colours). They are accompanied by written information, audio, images and videos accessible simply by clicking on the icons on the right side of the screen. This approach allows the user to explore the work in all its dimensions, offering a direct and immediate experience, as an alternative to the thematic placement of the Tour. The Showcase facilitates quick access to objects and associated information, filtered according to the user's profile.

In contrast, the 'Tour' section allows users to choose from different thematic areas, presenting objects within 3D video scenarios reconstructed on the basis of ethnographic and historical-archaeological studies. The scenarios vary and allow users to observe different aspects of the lives of ancient communities and people today, such as daily life, production activities, religious customs, and relationships with other cultures. These scenarios can be accessed in two ways: the first is through a guided tour, in which the museum offers a route, presenting a series of scenarios, each focusing on different themes through the display of various materials. The second way allows to freely choose the desired scenario or theme. All scenarios are consistent with the target audience and the museum's objectives. Once the user enters a tour (regardless of the type of experience chosen), he or she will be given the opportunity to rotate and zoom in on objects and scenarios, listen to audio guides, access written information, and finally engage in quizzes and educational games. The backdrop adopted to narrate the historical events and cultural aspects of Aksum reconstructed through photographs and 3D video footage includes the involvement of the local population and uses real settings for the objects belonging to the collection. This represents an original methodology for the virtual museum creation of content.

Returning to the home page, we find another key feature: the Community. In this area, users can chat with other interested parties, participate in video conferences with experts, and access social pages associated with the project. This environment plays a crucial role in facilitating the exchange of ideas, ensuring the reliability of the information disseminated, and enabling users to keep constantly updated on new findings and activities of interest. The functions of the three areas of the museum vary if the user is under the age of 14. In that case, the museum presents a diverse program in both information and structure (dedicated games, restricted access to the community facilities, etc.)

Thanks to the profiling process, it is possible not only to filter information based on the cultural level and age of the users, but also to estimate

the visiting public, opening up prospects for future developments aimed at involving segments of the population that have hitherto had little incentive to participate in the museum experience. Profiling is a process of collecting and analysing data about the users, in order to personalize their experience, provide relevant content, and improve accessibility. This process includes the following key elements:

– Process: profiling is not a single event, but an ongoing process involving the collection, analysis, and use of data.

– Data: data collected may include demographic information, interests, preferences, knowledge level, and user behaviour.

– Personalization: profiling is used to personalize the user experience based on the user's individual characteristics.

– Relevance: content provided to the user is more relevant to the user's interests and knowledge level.

– Accessibility: profiling can be used to make the virtual museum more accessible to people with disabilities.

This strategy not only enhances the user experience, but also enables the museum to adapt and respond to the needs of diverse audiences, promoting greater inclusion and engagement. Five key aspects can be identified: goals, benefits, methods, data type, and privacy protection. The main goals are to tailor the experience to the user, provide personalized content, and improve accessibility by promoting the inclusion of a wide audience. These goals aim to create a high level of social cohesion and overcome ethnic barriers that are still present today. The second point, however, is the benefits that this practice offers. These are reflected in the possibility of expanding the audience and ensuring access to this heritage for all. Moreover, thanks to profiling, it is possible to create a personalized experience that allows the user to enjoy calibrated experiences that do not cause negative feelings such as boredom, disinterest, or a sense of inadequacy, thanks to specific contents based on age, language, and the type of approach with which one wants to access the collection. Another crucial aspect of the project related to the profiling procedure is the privacy factor, necessary to organize a strategy allowing the use of personal data while maintaining a high level of security and privacy. Four key aspects were considered:

a) Transparency: covers how data is collected, used, and for what purpose. Users will be clearly informed about how and why their data are collected and used.

b) Control: users have been provided with the ability to access, modify or permanently delete their data, giving them complete control over their personal information.

c) Security: the site is committed to protecting data, preventing access by third parties through anonymization processes and the constant updating of security measures.
d) Legal responsibility: the virtual museum, or any other entity using such data, must ensure that they are not disseminated without authorization and assume legal responsibility for their management.

This approach ensures that users' data are treated with the utmost respect for their privacy, promoting trust and transparency between the museum and its visitors.

3.3 *Artificial Intelligence to improve museum design*

A final aspect to underline is the use of generative AI for the creation of the alpha version of the virtual museum and its potential for reaching a working, publicly accessible version. Looking forward to creating realistic,

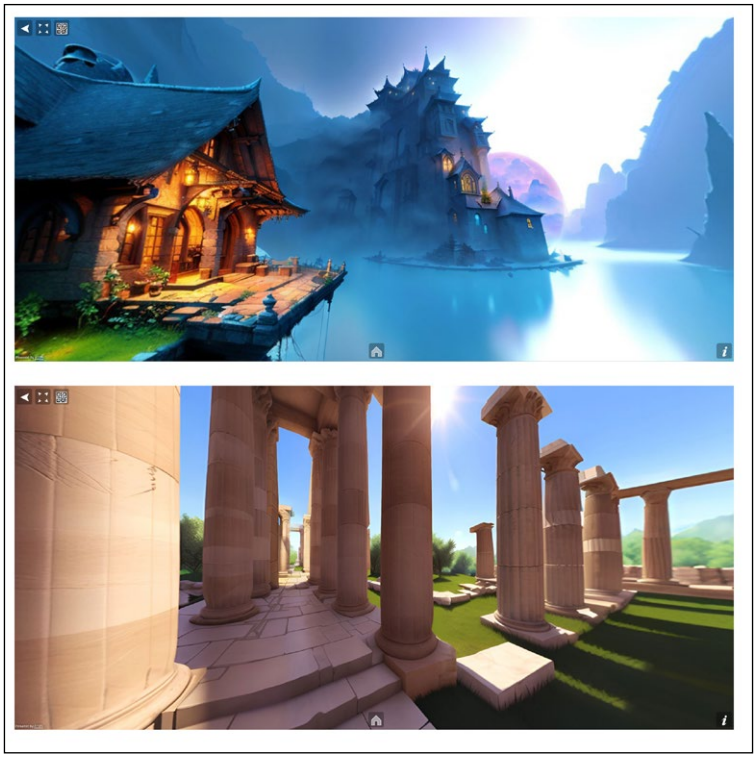

Fig. 5 – Examples of AI-generated virtual museum scenarios, based on fantasy tales (a) or cultural heritage-based (b) prompts (from Fanini, Gosti 2024).

high-resolution landscape backdrops, AI technology has been used to obtain realistic and detailed scenarios as backgrounds for different areas of the project. The scenarios (generated by Bing Image Creator for non-profit use) were reconstructed from specific directions, such as the desired background, clothing, colours, and subject matter. These guidelines enabled the AI to come up with extremely detailed models, which were essential for this first design phase. The use of generative AI has thus played a crucial role in overcoming logistical limitations, ensuring the quality and accuracy needed to provide an innovative and engaging experience for virtual museum users. However, although this represents a revolutionary force for the future of virtual museums, paving the way for a new kind of visitor experience (Fig. 5) (Fanini, Gosti 2024), it has, like any emerging technology, a range of potential advantages and disadvantages that it is important to consider carefully (see below).

4. Discussion

The project's innovative aspect lies primarily in the challenge of proposing a low-cost, socially impactful intervention in a fractured territory, leveraging cultural heritage to engage more people, even beyond the geographical scope, and thus rebuilding a network of informed relationships. Yet another original aspect is the idea of launching a project from scratch, starting with a master's thesis (Filosa 2024), subsequently developed into a fully-fledged project and proposed through the creation of a self-produced prototype (the

Fig. 6 – AI-generated Seglamen Museum setting, showing the continuity across time of pottery activity through archaeological exhibition (a) and virtual representation (b).

'alpha' version), which will serve to pool the resources necessary for the creation of the actual Virtual Museum, for which the guidelines have been drawn. A third innovative aspect, finally, lies in the use of generative AI to economically develop this alpha version. These three aspects underpin the originality of a project that presents itself as a replicable and scalable example for other similarly challenging contexts (Fig. 6).

Concerning the first point, the Seglamen Virtual Museum is an ambitious project that aims to promote knowledge and preservation of the region's rich cultural heritage by making it accessible to a global audience through digital technologies. The museum aims to engage the public through public events, workshops and laboratories for children and adults. In the years ahead, the VMS museum will continue to grow and develop, focusing on three key aspects: facilitating the accessibility of cultural heritage to a wider audience, contributing to its preservation, and overcoming ethnographic barriers. In addition, the museum aims to create an active community and collaborate with other museum institutions. The community will promote visitor participation, spread awareness of cultural heritage and foster intercultural dialogue.

The self-produced prototype has been conceived for demonstrating the project's potential and finding resources for its implementation. Seglamen's Virtual Museum aims to generate a positive economic impact on local people by creating employment opportunities and contributing to economic growth through tourism. The full implementation of the virtual museum presents several challenges, including engaging locals and providing a visitor experience that enhances the outreach of a real museum. The museum aims to receive public and private funding to ensure its implementation and maintenance. Finally, the use of generative AI in this context represents an exceptional opportunity, with its advantages and risks.

Among the advantages we certainly have: the creation of a personalized visitor experience, a greater level of interaction and immersion, and increased accessibility that results in the removal of more economic and physical barriers generating a process of democratization of archaeological and cultural heritage. Among the most influential disadvantages, on the other hand, the costs and expertise, the principles of accountability and transparency, and finally the processes of alienation and dehumanization with the consequent development of dependence on technologies should certainly be noted. Ultimately, the use of generative AI in the field of cultural heritage represents a tremendous opportunity for the future of virtual museums, but as we have seen this requires a balanced and responsible approach (Fanini, Gosti 2024; Foka, Griffin 2024). Only by making the most of its benefits and minimizing its potential risks can AI truly contribute to making culture more accessible, engaging, and democratic for all.

In conclusion, Seglamen's Virtual Museum is an example of how digital technologies can preserve and disseminate cultural heritage, foster social cohesion, and overcome physical and ideological barriers. Its goals and the issues addressed demonstrate a willingness to create a dynamic project that can adapt to the needs of new users and evolve in the course of time.

5. Conclusions

The creation of a virtual museum in areas affected by conflict or recently emerging from such situations can represent a successful strategy not only for the safeguarding of cultural heritage, but also as a tool for conveying messages of peace and promoting social cohesion. This is evidenced by the numerous museum institutions that have undertaken similar projects to the one proposed here, demonstrating how the museum, from this perspective, acquires added value.

Even in the absence of a physically existing museum (where there are no conditions necessary for its survival), through an appropriate virtual experience, cultural heritage can become a tool capable of breaking down social barriers, sparking interest in people about the history and culture of regions in difficulty. This interest can, in turn, be transformed into an economic and social resource, for instance through cultural tourism, bringing tangible benefits to the region and contributing to strengthening its identity and economic development. Thus, the virtual museum not only preserves the past, but becomes a key element in building a future of dialogue, unity, and prosperity.

In such a context, the archaeological site of Seglamen represents an ideal case study, as it embodies all the characteristics (both positive and negative) required to start a virtual musealisation process, thus becoming one of the first examples of its kind in the Horn of Africa. Such an initiative could actively engage the local community and authorities, fostering essential processes for the safeguarding of archaeological heritage and promoting mutual understanding and respect among the various cultures and communities.

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Acknowledgements

The authors express their sincere gratitude to the institutions involved in the Archaeological Mission at Aksum, Ethiopia. In particular, the University of Naples 'L'Orientale', Department of Asia, Africa and the Mediterranean, and the ISMEO-The International Association for Mediterranean and Oriental Studies, which have been carrying out research in the Seglamen area since 2010. Their continued commitment and support have been essential to the development of this work. The virtual museum images have been generated by Bing Image Creator for non-profit use.

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ABSTRACT

Considering the potential demonstrated by virtual museums, in particular as a tool to combat conflicts and as a driver of cultural awareness beyond ethnic and social barriers, the article describes the opportunity of creating a virtual museum for the cultural heritage

of the Seglamen area, in the Tigrai region, Ethiopia. The project, whose actual implementation is under discussion, has so far been developed in an alpha 'spot' version, and uses the most recent technological approaches (in terms of tridimensional representation, Generative AI and User Experience analysis) in order to promote the social recomposition of an area devastated by war.