

Understanding and Accessibility of Pre-and Proto-Historical Research Issues: Sites, Museums and Communication Strategies

edited by

Daide Delfino and Valentino Nizzo



Understanding and Accessibility of Pre-and Proto-Historical Research Issues: Sites, Museums and Communication Strategies

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Cover image: Frame of the video- fast motion 'Tik & Tuk' as part of a path of universal accessibility in the Samnite Museum of Campobasso (Italy) 'Smart Cultural Heritage 4all' in the context of the project Molise M.A.C.R.O. Coordination: Regional Direction of the State Museums of Molise (S. Ialenti; V. Carbonara; D. Delfino), Development University of Molise (F. Ferrucci; G. Maddalena), Execution Heritage s.r.l. (E. Bruno; P. Tosco) and artist Gabriele Rocchietta' Courtesy of Ministry of Cultural Heritage, Activities and Tourism- Regional Direction of Museums of Molise.

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UISPP PROCEEDINGS SERIES VOLUME 17 – Understanding and Accessibility of Pre-and Proto-Historical
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UISPP has a long history, originating in 1865 in the International Congress of Prehistoric Anthropology and Archaeology (CIAAP). This organisation ran until 1931 when UISPP was founded in Bern. In 1955, UISPP became a member of the International Council of Philosophy and Human Sciences, a non-governmental organisation within UNESCO.

UISPP has a structure of more than thirty scientific commissions which form a very representative network of worldwide specialists in prehistory and protohistory. The commissions cover all archaeological specialisms: historiography; archaeological methods and theory; material culture by period (Palaeolithic, Neolithic, Bronze Age, Iron Age) and by continents (Europe, Asia, Africa, Pacific, America); palaeoenvironment and palaeoclimatology; archaeology in specific environments (mountain, desert, steppe, tropical); archaeometry; art and culture; technology and economy; biological anthropology; funerary archaeology; archaeology and society.

The UISPP XVIII World Congress of 2018 was hosted in Paris by the University Paris 1 Panthéon-Sorbonne with the strong support of all French institutions related to archaeology. It featured 122 sessions, and over 1800 papers were delivered by scientists from almost 60 countries and from all continents.

The proceedings published in this series, but also in issues of specialised scientific journals, will remain as the most important legacy of the congress.

L'UISPP a une longue histoire, à partir de 1865, avec le Congrès International d'Anthropologie et d'Archéologie Préhistorique (C.I.A.A.P.), jusqu'en 1931, date de la Fondation à Berne de l'UISPP. En 1955, l'UISPP est devenu membre du Conseil International de philosophie et de Sciences humaines, associée à l'UNESCO. L'UISPP repose sur plus de trente commissions scientifiques qui représentent un réseau représentatif des spécialistes mondiaux de la préhistoire et de la protohistoire, couvrant toutes les spécialités de l'archéologie : historiographie, théorie et méthodes de l'archéologie ; Culture matérielle par période (Paléolithique, néolithique, âge du bronze, âge du fer) et par continents (Europe, Asie, Afrique, Pacifique, Amérique), paléoenvironnement et paléoclimatologie ; Archéologie dans des environnements spécifiques (montagne, désert, steppes, zone tropicale), archéométrie ; Art et culture ; Technologie et économie ; anthropologie biologique ; archéologie funéraire ; archéologie et sociétés.

Le XVIII^e Congrès mondial de l'UISPP en 2018, accueilli à Paris en France par l'université Paris 1 Panthéon-Sorbonne et avec le soutien de toutes les institutions françaises liées à l'archéologie, comportait 122 sessions, plus de 1800 communications de scientifiques venus de près de 60 pays et de tous les continents.

Les actes du congrès, édités par l'UISPP comme dans des numéros spéciaux de revues scientifiques spécialisées, constitueront un des résultats les plus importants du Congrès.

Marta Azarello
Secretary-General /
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Understanding and accessibility of pre-and proto-historical research issues: sites, museums and communication strategies

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According to various definition of 'prehistoric' archaeology, it can be defined as 'Times before history' (Tournal 1833), 'Past cultures that did not leave a written record of their activities' (Society of American Archaeology list) (Egloff 2019: 3). In the same sense, the definition of the protohistory has been formulated in different ways: first, 'Because of the existence in some but not all societies of historical writing during the first millennium BC, the period has often been termed protohistoric instead of prehistoric' (Taylor 1994), or to the Europe 'the period or stage of human development or of a particular culture immediately prior to the emergence of writing' (Collins dictionary) or to the America 'archaeological history in the period immediately preceding recorded history' (Collins dictionary). In the classical European view, prehistory and protohistory are not true history, since they lack in historical sources (writing). In the American vision these two periods are true history, but without writing. It is a history made of material, technological, artistic, behavioral testimonials, and other data sources. Precisely these characteristics of the two periods, are an advantage and a disadvantage in its disclosure in the museums: for one hand the charm of such remote periods that do not have the written sources to tell them, can be a stimulus to the public. For other hand the lack of the writing hinders the possibility of knowledge by the general public, because it takes away from the everyday reality of today's people the reality of the men and women of Prehistory and Protohistory. A possible and useful connection between the actual day-to-day and the reality of the prehistory and protohistory are the link between technology and society, within the human behavior (Oosterbeek 2012).

Based on these considerations, we want examine the problems of attractiveness and easy conceptual accessibility to prehistoric and protohistoric Heritage, except those sites or those discoveries that are in themselves attractive because they are famous or monumental (the group of caves of Atapuerca, the painted Upper Paleolithic painted Franco-Cantabric caves, the cromlech of Stonhenge, the Mycenaean citadels, the Etruscan necropolis, or the Celtic and Celtiberian hillforts). Or we want take in account the problems in the disclosure of the pre and protohistoric materials in the museums collections. To one hand several sites are not monumental, often they are difficult in maintenance and visibility in extra-urban places. To other hand several materials in museums, above all the 'non artistic' are for the most part difficult to understand by their very nature: putting themselves in the shoes of the average visitor, these are 'incomprehensible but fascinating fragments of stone' (flint tools), 'beautiful ceramics but often monotonous' (vascular forms), or 'weapons and tools of color captivating green color' (bronzes); if the scientific datum, which is the 'writing source' that is missing from the Prehistory and Protohistory, it is not transmitted incisively and within the reach of a non-specialist public, the sites and the materials they will always remain difficult to understand. In the parts of the world where the anthropological approach is put in the foreground with respect to the historical-cultural one, bringing concepts of prehistoric archeology closer to today, for public disclosure, is easier, since there are still traditional societies to refer (Silva Noelli 2004; Jubainski 2016). Also in most of the Countries where the need to make archaeological data more anthropological, at

the base of public archeology is the complete and comprehensible transmission of scientific data (Mariano, Conforti 2013; Oliveira Eneas 2018). Archaeology, since being a science that has several constraints such as the alienation from the non-scientific world, the ability to involve the current society, the valorization of the intangible, which compromises its accessibility to the public (Delfino, Oosterbeek, Almeida 2015). On the other hand, as David Clarke well summarized since 1973: 'Archeology in essence then the discipline with the theory and practice for the recovery of unobservable hominid behavior patterns from indirect traces in bad samples' (Clarke 1979: 100).

The questions raised in this volume are therefore: how to make the results of scientific research in museum collections and in prehistoric sites closer to the day-to-day reality of the average public? What kind of problems do we meet to disseminate our research? How do we interface with the local community? Which solutions to improve the communication of scientific data? These questions were attempted to answer with the following colleagues:

Thun, Pasini, Tarter, Messana, Scalco, Scali, Camisani Scalzi, Chiarell, Prencipe and Poletti, in the paper 'Education, dissemination and new technological approaches for a museum opened behind closed doors: the University Museum of Paleontology and Prehistory "P. Leonardi"', present a new project to the paleontological museum 'P. Leonardi', after its damage during the earthquake of 2012, using new technologies and involving directly students of Master Degree.

Bringmans, in the paper 'Beyond Museum Walls: The Potential of Untraveled Prehistoric Heritage Sites as Archaeotourism Destinations', show a perspective of a form of cultural tourism, which aims to promote public interest in archaeological sites, creating Archaeotourism, specifically to the prehistoric sites.

Chowne and Carter, in the paper 'Unlocking La Cotte de St. Brélade: making Jersey's Pleistocene heritage accessible' show study, protection and enhancement of the Middle Pleistocene site of La Cotte de St. Brélade, only possible because the site is considered as an integral part of Jersey's historic environment communication, education and tourism development strategies.

Modolo, Stefani, Sartori, Ingegno, Magagnin, Bressan, Marton, Conte, Mason, Rizzotto, Riva, Carpené, Maniglia, Nardellotto, Meneghini and Follador in the paper 'The Livelet Park: education, didactic and experimental archaeology (Revine Lago, Treviso, Italy)', show the Livelet Archaeological Park project to promote lakes history and environment around the prehistoric remains found in Colmaggiore di Tarzo.

Arróniz Pamplona, Sirvent Cañada, Fonseca de la Torre, Bayer Rodríguez, Meana Medio, Pérez Legido and Calvo Hernández in the paper 'Abandonment, rehabilitation and accessibility of open air sites: the case of El Castillar', show a new project to restore and protect the protohistorical settlement of El Castillar (Mendavia, Navarre, Spain) after the lack of maintenance and visitors resulted on the abandonment of the settlement in 1990s.

Carbonara, Delfino, Di Nucci and Ventura, in the paper 'Reality, strategies and projects to prehistory and protohistory in the state museums and archaeological sites in the Molise region (southern Italy)' show a museographical strategies to enhance proto-historic collections in museums with a prevalence of collections from other chronologies, and the Paleolithic site, and its materials, of Isernia la Pineta which is an integral part of the National Paleolithic Museum of Isernia, involving the local communities, youth and the disabled public.

Nizzo, in the paper 'The Temple Machine. A New Communication Model for the Villa Giulia National Etruscan Museum' show a projet developed in the main permanent exhibition of Etruscan collection in Italy, according to the educational role of the museums and the new perspective of disclosure of the scientific data in the museum since the system of management

and communication of national cultural heritage introduced by the Italian Ministry of Cultural Heritage and Activities.

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Abandonment, rehabilitation and accessibility of open air sites: the case of El Castillar

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Abstract

The protohistorical settlement of El Castillar (Mendavia, Navarre, Spain) was extensively excavated during the 1970s and 1980s, becoming the first archaeological site of these characteristics to be studied in the region. In 1986, a first conservation campaign was made in order to keep the settlement open to visitors, which was based on the consolidation of the stone wall bases with concrete so that the harsh weather conditions would not erode them.

This early attempt to protect the settlement and make it accessible to the public, was successful at the beginning, as there were school trips to the site and other visitors also appreciated the settlement, but in the 1990s the lack of maintenance and visitors resulted on the abandonment of El Castillar. After all those years of abandonment, in 2017, the town council proposed a new project to restore and protect the site and to make it accessible to the public again.

Keywords: Iron Age, Bronze Age, settlement, Spain, accessibility

Résumé

Le village protohistorique d'El Castillar (Medavia, Navarre, Espagne) fut largement excavé et étudié au cours des années 1970 et 1980, devenant de ce fait le premier site archéologique disposant de ces caractéristiques à être étudié dans la région. En 1986, une première campagne de conservation a été lancée dans le but de garder le site ouvert aux visiteurs. Cette campagne était basée sur la consolidation de la base des murs en pierre avec du ciment afin que les intempéries ne les érodent pas.

Cet essai initial pour protéger le village et le rendre accessible au public a été couronné de succès au début, lorsque des voyages scolaires étaient organisés pour visiter le site et que d'autres visiteurs appréciaient également les restes du village, mais dans les années 1990 l'insuffisance d'entretien et de visiteurs entraîna l'abandon du site d'El Castillar. Après toutes ces années d'abandon, en 2017, le conseil de la ville a proposé un nouveau projet pour restaurer et protéger le site et le rendre accessible au public de nouveau.

Mots-clés : Âge du Fer, Âge du Bronze, village, Espagne, accessibilité

1. Introduction

El Castillar (Mendavia, Navarre, Spain) is a settlement from the Final Bronze and Early Iron Age. It is located on top of a small hill, from which the surrounding lands can be controlled. The site was excavated during the 1970s and 1980s for several campaigns, as it was the first archaeological site of these characteristics and chronology to be studied in the region. During those years of



Figure 1. State of abandonment of one of the housing structures prior to the start of the 2017 campaign, and after the 2018 restoration campaign.

excavation, all the structures remained open to the public, without a good conservation plan. In 1986, a conservation campaign was made in order to keep the settlement open to visitors. That campaign was based on the consolidation of the stone wall bases with concrete, which was not ideal due to the kind of stone the houses were made of. As it happened with other archaeological sites at the time, the consequence of not having a long term plan for it, it was progressively abandoned. However, in summer 2017 and 2018, a restoration campaign was organized by the Town Council, in order to protect, conserve and reassess its archaeological importance for the region (Figure 1).

Despite having large areas unexcavated, the settlement's structure can be drawn from the previous excavation campaigns. Rectangular single-room housing structures were built in a row in the main street, and opposite to them, there were folds. The walls of the housing structures were built with a base of local stone and then completed with adobe bricks, which were later covered with mud plaster (Castiella 1985). This construction technique was widely used during this period in the region. Some of the houses also presented pottery furnaces in them, built with the same technique as the walls. Despite having found two of the furnaces in good preservation conditions, they were left onsite without weather protection, so nowadays there is nothing left of them. The village did not present a wall, as the high of the hill and the natural ravines that surround it, are enough protection for a small rancher settlement.

The early attempt to protect the settlement that was made in 1986 and the emphasis that the researchers put since the first excavations in making the discoveries accessible to the public was successful, and many inhabitants of Mendavia and other surrounding villages know the archaeological site. However, due to the lack of maintenance for three decades, visitors rarely went to the site and eventually was abandoned and almost forgot from the collective memory. Nevertheless, the generation of people who went on school field trips to El Castillar during the years that it was being excavated, is still interested in its conservation and restoration, as they were told when they were children about the importance of archaeology and heritage. For this reason, we believe that good communication strategies are crucial to the maintenance of these kinds of rural low-budget archaeological sites, as they are key to understanding both local and regional history, and could become a link between today's societies and their past.

2. The archaeological project

In 2017, Mendavia's town council proposed a new project in order to restore and protect the archaeological site, making it accessible to the public again (Arróniz Pamplona *et al.* 2018a). That way, both in 2017 and 2018 two restoration campaigns were carried out in the housing structures that were unearthed during the 70s and the 80s fieldworks. However, making the settlement more accessible to the public, does not constitute all the objectives of the project, as if visitors are not

able to understand the settlement, the restoration would have been in vain. For this reason, it is essential to have a solid research plan with new archaeological excavations, in order to get the most complete and updated information possible to the public, through the combination of the previous data and the new one.

The project has two different aims that are well differentiated and adapted to present methodologies and guidelines. First, access to the site must be adequate and include a parking area, so visitors can easily find it (Juncà Ubierna 2011). At the same time, restoring the housing structures makes easier for the visitor to understand the site because they can see what we are explaining. We also believe that it is important to use different communication strategies both with the people living in the area and with the general public so that more people can visit and understand its archaeological importance. The second aim of the project is to broaden the archaeological knowledge we have of this chronological period, so further archaeological excavations must take place, with a modern methodology to answer the different questions that have risen during the last three decades.

3. Physical accessibility and restoration process

The first two campaigns were focused on the restoration of two housing structures that represent a good example of Iron Age architecture in the area. The criteria followed during the process was clear, as we had to remove some materials that were affecting the integrity of the original structures, such as concrete, and others that were discordant such as some stones that were used on the previous reconstruction. For this, first, we ensured to make the minimum intervention possible, so the original structures are respected as much as possible. This is necessary to guarantee the integrity of cultural heritage in the long run. All materials used during the process are similar to the original, but any reintegration is made with slightly weaker materials so they can be dismantled if necessary, without damaging the originals. These materials, in addition to being compatible with the original structures, they are also aesthetically different, so anyone can differentiate both parts when looking closely (ca. <2 m) while maintaining a visual unity from afar (ca. >5 m) (Mileto *et al.* 2017).

In addition to the rehabilitation of the structures, the project also promoted the addition of visual resources such as the construction of visitor information panels and ideal but accurate recreations, as well as road signs in order to make the site easier to understand to everyone (Stubbs 1990; Juncà Ubierna 2011).

In the following years, more excavation campaigns will be carried out not only to shed light into modern archaeological questions but also to reveal more structures that can be presented to the public, as the final objective of the project is to make El Castillar more accessible to the visitors.

4. Communication strategies

As explained in the introduction, the abandonment of the site proves the importance of developing a good communication strategy, not only within the scientific community but also in terms of scientific and cultural dissemination, if we want to avoid a new abandonment of the archaeological site in the future.

4.1. Cultural outreach

Prior to the beginning of the first archaeological campaign, in 2017, Mendavia's town council organized an exposition about the project and an informative talk. This way, those interested in archaeology and in El Castillar could learn more about the site. During these events, some people even offered themselves to help during the campaign as volunteers (Figure 2).

Both on 2017 and 2018 campaigns, several volunteers from Mendavia helped us every day. The group was formed by people of all ages, from children to elders and from different social backgrounds. When dealing with groups of very different backgrounds, it is important to adapt the discourse in order to make it interesting to them. This way, all the volunteers could learn the importance of archaeology and its subsequent conservation, and at the same time, they were able to learn different archaeological techniques and tasks that were chosen to each of them. The main objective of this volunteer work was to make the inhabitants of Mendavia understand



Figure 2. Volunteer children learning archaeological techniques.

and appreciate the value of archaeological fieldwork, from surveying the surrounding area, to the excavation process, the importance of recording and onsite photography, the subsequent treatment of the recovered parts in the laboratory, etc. On the same context, we also organised two Open Days so people that had to work during the week could also come and help us.

In Autumn, after the campaigns were over, we also carried out some guided visits, in which visitors could see how different the site looks before and after the campaigns.

It is also necessary to note the importance of social media when we want to reach a broader public. For this reason, we have also been sharing information and interacting with people via social networks, such as Facebook, Youtube and Instagram. Sharing news about the site in social media has proven to be a great method of communication with a broader number of people, instead of only sharing it to those from the region. We also try to upload news that attracts the interest of people not only during the archaeological fieldworks but also during the rest of the year, to keep the interest of visitors. This also allows for people that visit the settlement to share their experience with us. For example, last year they sent us a video of a panoramic view of the settlement which was recorded with a drone. This two-way communication is not just interesting for the visitors, but also for us, as in some cases we have been able to use the materials they send us in the archaeological campaigns, such as with the drone video we have been able to use it for an archaeological survey of the surrounding area. In the same context, interaction with the community has made possible for us to see old photos of the site that were not in the documentation of the previous excavation campaigns, which in some cases helped us to see the excavation process of some areas that were not believed to be important at the time, so they had fewer photographs.

4.2. Scientific dissemination and research

Even though during these first campaigns we have not been able to excavate new areas of the settlement, we had the possibility of cleaning some of the old test pits' profiles, take some samples for carbon dating and the site's stratigraphy is being reevaluated. We are also studying the mudbrick structures present in the settlement, as at the time of their discovery they were not considered to be important, but nowadays we know they can provide a lot of information about the inhabitants' livelihoods and technology (Fonseca *et al.* 2021). Because of these, we think it is important to keep the scientific information about the settlement updated. This is especially important as all the articles about it were written and published more than 20 years ago, and both methodology and the understanding of protohistory have changed substantially.

For this reason, we are publishing as much information as possible, and updating the information from previous campaigns. Accordingly the settlement was the protagonist of discussion panel on the problem of re-intervention in previously excavated sites during the last edition of the Young Archaeological Researchers' Meeting (Jornadas de Jóvenes en Investigación Arqueológica) celebrated in Tarragona in May of 2018 (Arróniz Pamplona *et al.* 2018b). We also brought our work to the UISPP World Congress celebrated in Paris in June of 2018 in order to share the last scientific research made on the site and our conclusions and concerns about the future of these kind of public sites in rural environments, as exposed in the present communication.

5. Conclusions

All the activities we have made as part of the project in Mendavia, have proved to be interesting to people and successful for us. During our intervention at the settlement, both people from the town and from the region, come to see our progress and ask questions about it. Some of those people also came to help us with our work and learn more about archaeology, as they understood the importance of our task. These people have proven to be very important to our project, as they promote the value of conservation of cultural and archaeological heritage, among the rest of the town.

Apart from this, we have also made other activities with people from the area such as divulgative talks, expositions and visits to the site, all of them organized and supported by the town's council. As well as during the archaeological intervention, those meetings had great participation (Figure 3).

Being this a recent project, we cannot draw conclusions about its long term success yet. However, we can explore the possibilities we have for the next years, which will be focused on children education, as they are the ones that will have to understand the importance of archaeological sites in order to prevent it from being abandoned again. For this reason, we are developing new activities such as educational archaeology workshops and schools' visits. We are also working on



Figure 3. Guided visit from 2017.

the introduction of new techniques and new work methodologies, such as photogrammetry and 3D modelling. In this way, we are developing a virtual museum, a place where we will upload the 3D models that we obtain. These 3D models are being edited and optimized so that they can be visited from any digital device, such as tablets or smartphones, facilitating access and dissemination of research to all types of audiences.

Besides that, it would also be interesting to connect El Castillar with other archaeological sites from the region to create a network that connects Navarra's archaeological heritage of the same chronological period.

It is important to bear in mind that this is not an isolated case, but the methodology exposed in here can be successfully used in different archaeological sites. The importance of creating good communication strategies, that do not only focus on scientific dissemination but also on the socialization of knowledge, have proven to be key for the preservation of archaeological spaces.

As a conclusion, we would like to insist in the idea that those sites are much more than a research project. They are a visible link between actual communities and their past. The lessons that can be drawn from these places in terms of social organization, collaboration and traditional economic activities, which were more responsible with the local environment, can't be underestimated.

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Beyond Museum Walls: The Potential of Untraveled Prehistoric Heritage Sites as Archaeotourism Destinations

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Abstract

'Archaeological tourism' or 'Archaeotourism' is a form of cultural tourism, which aims to promote public interest in archaeological sites. 'Archaeotourism' includes visits to archaeological sites, but also 'event-archaeology'. Famous archaeological sites draw thousands of visitors, while many lesser-known heritage sites often fail to attract sufficient visitor numbers. Prehistoric sites in particular are also confronted with the fact that the archaeological remains often lie hidden beneath the surface. However, the organisation of events could be the driver that brings visitors to a site. Even simple events create a sense that 'something is happening' and that prehistoric sites are also buzz-worthy places.

Keywords: Archaeotourism, Event-Archaeology, Heritage Site, Prehistory, Veldwezelt-Hezerwater

1. Archaeotourism

The concept of 'Archaeological tourism' or 'Archaeotourism' (Giraud and Porter 2010; Thomas and Langlitz 2019) is certainly not a new phenomenon. People have visited archaeological sites for centuries. So it should not come as a surprise that 'archaeotourism' is in fact one of the oldest tourism niches. For instance, in the late 17th and 18th centuries, the young, male elite of Europe undertook what was known as the 'Grand Tour' (Redford 1996). Although the 'Grand Tour' is nowadays primarily seen as a British tradition, similar trips were made by wealthy, young men of other European nations as part of their education. Once in Italy (Redford 1996), these young 'tourists' would visit Turin, Milan, Florence and of course Venice; the Las Vegas of the time (Holtorf 2005). From Venice the 'tourists' went to Rome to study the ancient ruins. Some young 'tourists' would visit Naples, and after the mid-18th century, they would also go to the recently discovered archaeological sites of Herculaneum and Pompeii, or even to the ancient Greek ruins at Paestum in Magna Graecia (Southern Italy), which was then the usual terminus (Redford 1996).

'Archaeotourism' is defined by Bowers (2014: 7353) as 'a form of tourism that focuses on archaeological resources'. A very similar description is given by Giraud and Porter (2010), who define 'archaeotourism' as 'tourism to sites of archaeological value'. Archaeotourism includes visits to archaeological sites, archaeologically focused (open-air) museums, but also the attendance of traditional festivals or other events. Popular archaeotourism destinations around the world – like the pyramids in Egypt, the Colosseum in Rome or Stonehenge in the United Kingdom – attract millions of tourists every year. In those cases, archaeotourism can cause damage to the sites, and thus becomes 'invasive tourism' (Butler 1999). A well-known example is that of the Lascaux Cave (Martin-Sanchez *et al.* 2015) near the village of Montignac, in the department of the Dordogne in southwestern France. The opening to the general public of the Lascaux Cave with its prehistoric wall-paintings after World War II changed the cave's environment. The exhalations of the 1,200 visitors per day, the presence of light, and the changes in air circulation lead to the appearance of lichens and crystals on the walls in the late 1950s, which in turn lead to the closure of the cave in 1963.

On the other hand, thousands of smaller, lesser-known and untraveled archaeological heritage sites fail to attract sufficient visitor numbers and often suffer from a total disinterested public. Sometimes, these archaeological heritage sites are just fenced in to protect people from the danger of falling in open trenches, perhaps more, than to preserve the archaeological remains for the future and future generations. Nevertheless, the creation of new archaeotourism destinations is commonly looked on as having a favourable economic impact (Archer 1982). Therefore, large amounts of public and sometimes private money are being spent on the development of archaeotourism, because tourism is now often used by policymakers as a tool for economic growth (Fleischer and Felsenstein 2000). In the context of ‘core-periphery systems’ (Telfer 2002), new tourism development projects are indeed able to transfer wealth from the richer urbanized areas to the poorer peripheral regions.

2. Case-study: The Veldwezelt-Hezerwater Heritage Site

The ‘Veldwezelt-Hezerwater Middle Palaeolithic Project’ (Bringmans 2016) was started by the Laboratory of Prehistory – Katholieke Universiteit Leuven, Belgium, in 1995. During the 1995-2003 period, several Neanderthal open-air sites were excavated to the southeast of Veldwezelt, Belgium (Figure 1).

Right from the start, the archaeologists participating in the project wanted to present their new archaeological data and interpretations to the public through pamphlets, lectures, television programs and internet websites. Each year an ‘open-day’ for the general public was organized in collaboration with the ‘Gallo-Roman Museum’ in Tongeren, which each time received a lot of media attention. In total, more than 10,000 people paid a visit to the Veldwezelt-Hezerwater active



Figure 1. The Veldwezelt-Hezerwater Neanderthal Site, Community of Lanaken, Belgium (red contour).

excavation works. The massive response of the general public started the process of ‘doing’ Public Archaeology. This process resulted in the opening of the Veldwezelt-Hezerwater Heritage Site in 2015 (Bringmans 2016, 2018).

The term ‘Public Archaeology’ was first coined by Charles McGimsey in 1972 when he published his book ‘Public Archaeology’ in which he discussed the past and the public access to that past, in relation to cultural resource management. The Neanderthal site at Veldwezelt-Hezerwater was not only of great scientific value, but also had the potential of raising public awareness for archaeological heritage values. The Laboratory of Prehistory and the Gallo-Roman Museum in Tongeren addressed in 2004 a written request to the Flemish Government, which is the executive branch of the Flemish Community and the Flemish Region of Belgium. In its request the Laboratory of Prehistory and the Gallo-Roman Museum asked the Flemish Government to protect the Neanderthal site as an archaeological monument (Bringmans and Vermeersch 2008). But the archaeologists of the Laboratory of Prehistory and the Gallo-Roman Museum were not only pleading for the social responsibility of the archaeologist towards the public, but they were also arguing for the social responsibility of the public towards the archaeological site. This is the reason why they also petitioned the Flemish Government to make the Neanderthal site of Veldwezelt-Hezerwater accessible for visitors and tourists in general.

There were at least five specific motives for ‘doing’ Public Archaeology (McGimsey 1972; Moshenska 2017) at Veldwezelt-Hezerwater. First, the scientific community needs to generate public interest and support in order to attract funding. It is a way to publicize Archaeology and the ‘excavation’ process itself to the public. Secondly, the Veldwezelt-Hezerwater Heritage Project offered a golden opportunity to put across the point that the ‘digging’ process is based on careful scientific research. A third motive for practicing Public Archaeology concerned the promotion of the field of ‘Neanderthal Archaeology’. Unsurprisingly, the desire to promote ‘Neanderthal Archaeology’ as a full-grown science stemmed primarily from the archaeologists themselves. Fourthly, the Veldwezelt-Hezerwater site would also serve as a three-dimensional witness of Neanderthal presence here many thousands of years ago. And last but not least, the massive response of the general public during the open-days was a motive in its own right.

In response to this request, the Laboratory of Prehistory and the Gallo-Roman Museum were asked by the Flemish Government for a complete and well-founded file to be submitted to the Flemish Government. The drafting of the technical dossier for the physical protection of the site was the essential first step. Once the decision has been made to go beyond preserving or conserving the Veldwezelt-Hezerwater site in situ (Bringmans and Vermeersch 2008), the choice had to be made as to the nature and extent of the enterprise undertaken. The process of stabilizing the site, which tried to prevent any further degradation of the monument, was of utmost importance. Planners should first of all realize that any disturbance of or alteration to the site could compromise its integrity and destroy contextual information. Changes in environmental factors could potentially have a negative impact on the archaeological remains. Proper practices should therefore minimize the impact on the site and ensure its protection and preservation. This included making sure that the site had adequate infrastructure to support visitors. Properly planned modern walkways would lessen the deleterious effects of increased foot traffic through the site, avoiding climbing, sitting or standing on archaeological walls.

From a protective point of view, the complete burial of the archaeological site would offer the best guarantee for protection. However, the Veldwezelt-Hezerwater site would be no longer visible and would therefore lose every public or touristic value. The complete burial of the site was thus not an option, however, the remaining fragments of the prehistoric landscape containing palaeosoils and artefacts that tell the story about the life of the Neanderthals in the Hezerwater-valley thousands of years ago should be preserved. In October 2006, the vertical walls of the former loam-quarry were in a good condition, visible and accessible for almost 125 m. The top of



Figure 2. The Veldwezelt-Hezerwater Neanderthal Site, aerial view (red contour).

the quarry was covered with scrub and tall trees along the road and young trees directly above the archaeological sections. The archaeological levels were easily accessible and the geological structure – loess and loam from the Saalian and the Weichselian Ice Age and the intermediate interglacial (Eemian) soils – were clearly visible. As proposed by the Laboratory of Prehistory, the main archaeological section could be maintained in three subsections and covered by three roof structures (Figure 2).

It was advised by ADC Heritage BV (Kars *et al.* 2006) that the three archaeological subsections would be treated with in situ impregnation of the loamy sediments with resin or epoxy as a definitive solution for the preservation of the loamy walls. By impregnation the loose sediment would be hardened. The dehydration process of the quarry walls would be established by constructing simple roof constructions on poles that would protect the walls against precipitation. Once the sections were dry, all archaeological remains and geological materials would be well conserved in situ. Moss and plant growth would be prevented by the dry conditions so that the different layers and soils would remain clearly visible. The development of the Veldwezelt-Hezerwater Heritage Site did not result in the wholesale change of the original archaeological site and landscape. As the process of discovery is an important aspect of on-site experiences, the visitor of the Veldwezelt-Hezerwater Heritage Site would not get an instant overview of the site when he enters it, but would gradually discover the site.

The most important milestones in the development of the Veldwezelt-Hezerwater Heritage Site (Bringmans 2016) were: (1) the successful excavation campaigns (1998-2003), (2) the (inter) national media attention, (3) the ‘Neanderthals in Europe’ exhibition at the ‘Gallo-Roman Museum’ in Tongeren in 2004-2005, (4) the Convention ‘Neanderthals in Europa’ (September 17-19, 2004), (5) the mediatized visit on September 19, 2004 to the site of Mrs. Jean M. Auel,

the Finnish-American writer who wrote the ‘Earth’s Children’ books, (6) the opening of ‘The Neanderthal-Road’ on September 10, 2006, (7) the fact that the site became the first listed prehistoric monument in Flanders on December 7, 2007, (8) the presentation of the heritage plan in 2009 by ‘Team van Meer Architects’ from Hasselt, (9) the support of the successive Mayors of the town of Lanaken, Mr. Alex Vangronsveld and Mr. Marino Keulen (10) the decision by the Flemish Government (Mr. Geert Bourgeois, PM) to grant a major subsidy for the development of the site on August 28, 2013, (11) the start of the realization of the project in February 2014 by Bouwinvest Real Estate Investors Amsterdam (Contractor: Verhofsté NV Metaalconstructies in Zele, Belgium) and finally (12) the opening of the heritage site on June 12, 2015.

The opening of the Veldwezelt-Hezerwater Heritage Site in 2015 was a gift that had a high value for science and education, but unfortunately not as a new destination for archaeotourism, because its growth as a tourist attraction is quite difficult. Four years after opening of the heritage site, it turned out that the mere preservation (Beerten en Goeminne 2016) of the archaeological site was not enough to attract tourists in significant numbers. What seems to be missing at the Veldwezelt-Hezerwater Heritage Site is a unique, interactive, immersive, heritage experience. Heritage sites should have a mixed ‘media’ approach, so that they immerse the visitor within a unique experience. From the very start, it was clear that the role played by the Gallo-Roman Museum in Tongeren as a central hub would be crucial, because the museum would try to send visitors from the museum to the Veldwezelt-Hezerwater Heritage Site.

The collection of the Gallo-Roman Museum (Creemers 2001) in Tongeren was started in the 19th Century when the first researchers collected objects from the ancient Roman capital of the Civitas Tungrorum – Atuatuca Tungrorum – now the city of Tongeren. The archaeological research in Tongeren and the surrounding region (Haspengouw) gradually increased and still continues today. In the fifties of the previous Century, the Provincial Council of Limburg decided to build a museum. The Gallo-Roman Museum (Creemers 2001) in Tongeren was officially opened in 1954. From that time on, there was a second dimension to the collections; namely the rest of the territory of the province (the Campine Region and the Meuse Valley). In the fifties, the sixties and even in the seventies of the previous Century, a lot of Epi-Palaeolithic, Mesolithic, Metal-Age, Gallo-Roman and even Merovingian sites had been discovered and excavated. Nowadays, the Gallo-Roman Museum possesses the most important Prehistoric and Gallo-Roman collection in Flanders, although its findings originate exclusively from the Province of Limburg. The presentation in the museum begins chronologically with the oldest evidence (Figure 3), namely the Middle Palaeolithic material of Veldwezelt-Hezerwater (Bringmans *et al.* 2003).

During the archaeological excavations at Veldwezelt-Hezerwater an ‘open-day’ was organized each summer by the Gallo-Roman Museum in collaboration with the Laboratory of Prehistory



Figure 3. Levallois refit from the Veldwezelt-Hezerwater Site.

to offer the general public an insight into the practice of archaeological excavations. In total, more than 10,000 people paid a visit to the Veldwezelt-Hezerwater excavations. The Gallo-Roman Museum in Tongeren also benefitted from the media attention, although the museum soon became a ‘victim’ of its own success. More than 150,000 people visited the ‘Neanderthals in Europe’ exhibition in 2004-2005, which presented the



Figure 4. People visiting the Veldwezelt-Hezerwater Heritage Site.

first results of the excavations at Veldwezelt-Hezerwater. The museum galleries back then were almost unable to cope with such large numbers of visitors. As a result, the provincial council of Limburg gave the go-ahead for an extension of the existing museum. In 2006 the building work got under way. The transformed museum opened its doors on May 21, 2009. In 2011, the Gallo-Roman Museum in Tongeren was chosen as ‘The European Museum of the Year’, the most prestigious museum award in Europe, presented each year by the European Museum Forum (EMF). The ‘Gallo-Roman Museum’ in Tongeren was the first Belgian museum ever to receive this award.

In the philosophy of the Gallo-Roman Museum, a contemporary archaeological museum has to offer more than a mere collection of objects. This should result in a co-operation of scientists, educators, curators and an interaction between information, atmosphere, architecture, town life and life in the region. It invites people to ask questions, to learn and to enjoy and to contemplate. As a contemporary museum, the Gallo-Roman Museum, which now attracts some 100.000 visitors per year, has a rather uncharacteristic way of presenting its collections. The objectives are not simply to ‘present’ the past, but to get some kind of interaction with visitors and to make the visitors think about their past. The presentation of the section ‘Prehistory’ starts with an introduction where general questions about Prehistory and broader aspects of our past are raised. The introduction also provokes public debate on the issues of culture, religion, social differences, etc. The museum would also encourage the visitors of the museum to go beyond the museum walls and try to visit real archaeological sites, such as the Neanderthal site at Veldwezelt-Hezerwater (Figure 4).

3. Discussion

3.1. Economics and Functional Management

In archaeotourism (Giraud and Porter 2010), economics is a major part of the relationship between the public and the heritage site. This dynamic relationship must be carefully

understood if it is to be managed successfully. However, scientific research into the conceptual approaches to archaeological economics has been recognised as underdeveloped (Pyburn 2009; Hodder 2010). Effective presentation is crucial at any cultural heritage site, because it creates economic value and scientific significance. Some heritage sites are well-known and have been visited for decades or centuries, but there are also numerous lesser-known archaeological sites (Grimwade and Carter 2000: 35) that find it difficult to attract sufficient visitor numbers. These archaeological heritage sites are almost never able to be self-supporting and need ongoing aid and grants. There is little debate that for instance prehistoric sites are highly significant. Yet, small occupation and activity sites of prehistoric societies are often under-valued or ignored, because the archaeological remains often lie hidden beneath the surface.

3.2. The Potential of Untraveled Archaeological Heritage Sites

The big question remains, whether or not, lesser-known heritage sites have the potential to become successful archaeotourism sites. Like any other organization that deals with the general public, heritage sites must put themselves in their customers' shoes. Museum studies, psychological and sociological research (Hood 1983) learned us long ago, that people visit museums and heritage sites because they want to learn something new. But, they also want to be with other people, want to do something worthwhile, want to participate, want to be active and want to have new 'experiences'. It turns out that for many people, a visit to a museum or a heritage site (Csikszentmihalyi and Hermanson 1995), is only a vehicle for having an enjoyable time with other people, rather than for focussing on the content of the exhibits. The social aspect of archaeotourism should thus not be underestimated. If we want people to enjoy a visit to a heritage site, we must also offer them some of the things that are important to them. The practical inventory of what can 'make or break' a visitor's experience of an archaeological heritage site is multifaceted. It covers everything that happens from the moment a person decides to visit a heritage site to when he or she leaves.

3.3. Case-study: Tensions between Theory and Practice at Veldwezelt-Hezerwater

As a general rule, the visit to the Veldwezelt-Hezerwater open-air heritage site will always take place under the guidance of an official guide. However, as the process of discovery is one of the most important aspects of on-site archaeological experiences, the visitor of the Veldwezelt-Hezerwater site will not get an instant overview of the whole area when he or she enters it, but will gradually discover the Neanderthal site by following different walkways. Given the necessity of bridging great differences in altitude the visitor gradually goes back in time. The present tour, in which a professional guide introduces the public to the practice of Archaeology is surprisingly reminiscent of the 'Public Archaeology' efforts at Veldwezelt-Hezerwater when the archaeologists themselves guided visitors around within the context of the ongoing excavations (Figure 5). The story that is being told during the on-site tour, is that of the life of the Neanderthals. In addition to the main storyline, there are also other secondary themes, including the origin and the development of the landscape, the influence of the climate on the landscape and aspects of palaeoanthropology.

However, four years after the opening of the heritage site at Veldwezelt-Hezerwater, it is realised that relatively few people visit the site. The Gallo-Roman Museum in Tongeren did not succeed in sending significant numbers of visitors to the site. In the year 2017 more than 40,000 tourists visited the community of Lanaken (Statbel 2017). These tourists, of which half were foreigners, stayed on average two nights in a hotel or another touristic accommodation (Statbel 2017). However, almost nobody of these tourists visited the Veldwezelt-Hezerwater Heritage Site. The numbers provided by the local Council of Lanaken speak for themselves. In 2015, the year of the opening of the heritage site, 16 groups with in total 507 visitors paid a



Figure 5. Visitors admiring the reconstructed Neanderthal living floor at the Veldwezelt-Hezerwater Heritage Site.

visit to the site. In 2016, 23 groups and 572 tourists came to visit the site. In 2017, the number of groups and visitors dropped to 13 groups and 222 visitors. In 2018, only 7 groups and 79 visitors paid a visit to the site. It must be said that three or four times a year, an open-day is organised, mostly on a Sunday. Usually, a few hundred people pay a visit to the site each time. Nevertheless, the numbers are quite disappointing.

However, it is possible to explain the low visitor numbers at the Veldwezelt-Hezerwater Heritage Site and to allocate the main problems: (1) insufficient opening-hours; (2) insufficient level of investments directed on the development of the heritage site; (3) lack of human resources dedicated solely to the heritage site; (5) insufficiency of infrastructure; (6) insufficient tourist services; (7) no indoor visitor centre; (8) discrepancy of transport infrastructure; (9) weak advertising activity; and (10) a very low budget that makes the effective management of the site almost impossible. So currently, the initial concept of the heritage site is not bringing the expected results that should help to further develop the heritage site.

From the public's point of view, increasing opening-hours at the Veldwezelt-Hezerwater Heritage Site is preferable as they make visits easier. Three other issues that must be addressed immediately are the route markings, the parking lot and the proper promotion of the site. The visitors should also receive a leaflet. This leaflet should cover all aspects of the site. A visitor centre is also vital, as it would enable visitors to learn more about the Veldwezelt-Hezerwater site. The visitor centre should contain a small museum that covers the different aspects of the Neanderthal site. A visitor centre would also enhance the attractiveness of the site. There is no shop at the Veldwezelt-Hezerwater site, although a small shop would be important, because it would enable visitors to buy stuff and a shop could also bring in more income which could be used for the maintenance of the Veldwezelt-Hezerwater Heritage Site. And finally, it would be important to organise events to create a sense that 'something is happening'.

3.4. *New Synergies: The Event-Driven Heritage Site*

Managers of archaeological heritage sites have to compete actively for consumers' attention, because they have to attract people to their sites (Timothy 2011: 337). Traditionally, education and learning represent the most important reason for the existence of archaeological open-air heritage sites (Schmidt and Wunderli 2008: 3139). However, Freeman Tilden's fourth principle of interpretation (Tilden 1957: 32) claims that 'the chief aim of interpretation is not instruction, but provocation'. People not only visit archaeological sites because they want to learn something new about the past, but they also want to be entertained or participate in leisure activities. Unique experiences should challenge and stimulate the visitors, turning thoughtless hands-on activities into minds-on challenges (Hein 1998: 30-31). A way to attract people to a heritage site is by hosting events. Arellano (2004: 71) claims that we all have an 'inner Indiana Jones' or something like a 'sense or desire for adventure'. Some people visit archaeological sites because they want to have special, unique experiences and 'encounter' an exciting and adventurous past (Holtorf 2005: 104). The organisation of events (Grimwade and Carter 2000) could be the driver that brings visitors to a site. Events also have a sense of urgency to them and they are also social activities. Even simple events can create a sense that 'something is happening'. There are of course limitations to this model, but by offering a variety of smaller or bigger events, managers of archaeological heritage sites can show to the general public that these sites are also dynamic, buzz-worthy places.

4. Conclusion

While the physical protection of archaeological heritage sites is of course paramount, nowadays nobody can ignore the economic opportunities Archaeotourism provides. While the famous archaeological heritage sites of the world face the problem of being appreciated to obliteration, the smaller, untraveled archaeological heritage sites risk decimation through neglect and lack of interest. Many archaeological heritage sites, which for the most part lie off the beaten path, often find it difficult to attract sufficient visitor numbers. Many of these lesser-known archaeological heritage sites do not have the necessary infrastructure to support large-scale, international tourism. However, managers of archaeological heritage sites have to understand that Archaeotourism is no longer the domain of the elite. Archaeological heritage sites need to adapt to their 'costumers' instead of vice versa, because present-day 'archaeotourists' are prepared to travel far and spend money, provided that there is enough offered.

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Reality, strategies and projects to Prehistory and Protohistory in the state museums and archaeological sites in the Molise region (Southern Italy)

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3

Abstract

The Regional Direction of Museums of Molise (Polo Museale del Molise) manages one of the most important Paleolithic sites in Europe, Isernia la Pineta and its museum (National Museum of Paleolithic of Isernia), as well as, among other 10 museums, archaeological sites and castles, the Samnitic Museum of Campobasso and the Archaeological Museum of Venafro. Here the component of recent Prehistory and Protohistory is very important in all collections. The importance of pre and protohistoric collections is emphasized, beyond the National Museum of Paleolithic of Isernia, to be linked to the most famous archaeological heritage of the region: the Samnites and its previous substrate. In this work will be presented the strategy of mediation between the pre and protohistoric sciences and the public as well as the projects for an improvement of didactic and communicative offers.

Keywords: Prehistory; Protohistory; State museum's collections; State archaeological areas; Molise region

1. Introduction

Molise is a region in the Central-southern Italy, placed between the two sides of the Apennini Mountains: on East it has a short outlet on the Adriatic Sea, between Puglia and Abruzzo, and on West includes the upper valley of the Volturno, which flows between Naples and Rome. Cultural Heritage of the region is relevant and of different types: archaeological, with one of the largest Paleolithic site in Europe, several Iron Age Samniti hill forts and open air sanctuaries, Roman cities and the main high medieval area in Europe. In Molise the Ministry of Cultural Heritage and Activities and Tourism (Mi.B.A.C.T.) manage, through the Regional Direction of Museum of Molise, 7 museums (Archaeological Museum of Venafro and National Museum of the Molise/Castello Pandone in Venafro; Museum of Santa Maria delle Monache and National Museum of Paleolithic in Isernia; Museum of the Town and of the Territory of Sepino; Samnitic Museum and Pistilli Palace Museum in Campobasso), 2 archaeological complexes (Monumental Complex of San Vincenzo al Volturno and Samnitian Sanctuary of Pietrabbondante) and 2 castles (Di Capua castle in Gambatesa and Civitacampomarano castle) (Delfino *et al.* in press).

States museums in Molise are interested by pre and protohistoric collections in some cases: while the National Museum of Paleolithic of Isernia is completed dedicate at the Prehistory, others museums like the Samnitic Museum of Campobasso and the Archaeological Museum of Venafro

integrate the pre and protohistoric collection in the general context of their collections, which go up to the Roman Age and to the Middle Age. Each of these collections has its own particular importance either on a European scale, or on a regional scale: for the Paleolithic, for the Neolithic, for the Bronze Age and for the First Iron Age. Each of these three museums had a special problematic to resolve: archaeological concepts related to collections not immediately accessible to the general public, limits to physical accessibility to collections for some disabilities, difficulty in approaching non-showy collections, like many prehistoric and protohistoric collections, by new generations. In 2017 and 2018 some solutions have been devised, both museographic and educational, to break down these barriers. Through internal communication projects of museums, re-organisation of the museum rooms and alternation school / work (program provided by the Ministry of Education and University Research).

2. Sannitic Museum of Campobasso

The museum is housed in the 18th century Palazzo Mazzarotta, in the medieval centre of Campobasso, Molise (Italy). This is the oldest museum collection in the region, founded at the end of the nineteenth century thanks to private donations, and enriched in recent times by the acquisition of finds from the archaeological excavations (Di Niro 2007). The exhibition follows a chronological criterion in order to describe the succession of populations and settlements of Molise region, from Prehistory to the Renaissance age. The exhibition begins from the Neolithic/ Chalcolithic period and continues to the Bronze Age and the Iron Age, the periods before the formation of the Samnite ethnos, in particular the two branches of the Pentri and Frentani that settled down respectively in Upper and Lower Molise (Figure 1). The next sector is focused on the society of these Samnite populations, in particular on the trades, writing, religion and funerary customs. The Roman section starts from the exhibition of the small marble statuary, and moves on the discoveries of the main municipia built after the Roman conquest, such as Sepino and Larino. The early medieval period is characterized by the discovery of two Lombard necropolis referable to a proto-Bulgarian population settled in Molise around the middle of the seventh century AD. The last sector is about the late Middle Ages and the pottery in protomaiolica and majolica from various sites in the region. The collection is mainly made up of finds from the Hellenistic-Samnite period and those from the Medieval period (with a clear preponderance of those from the Lombard

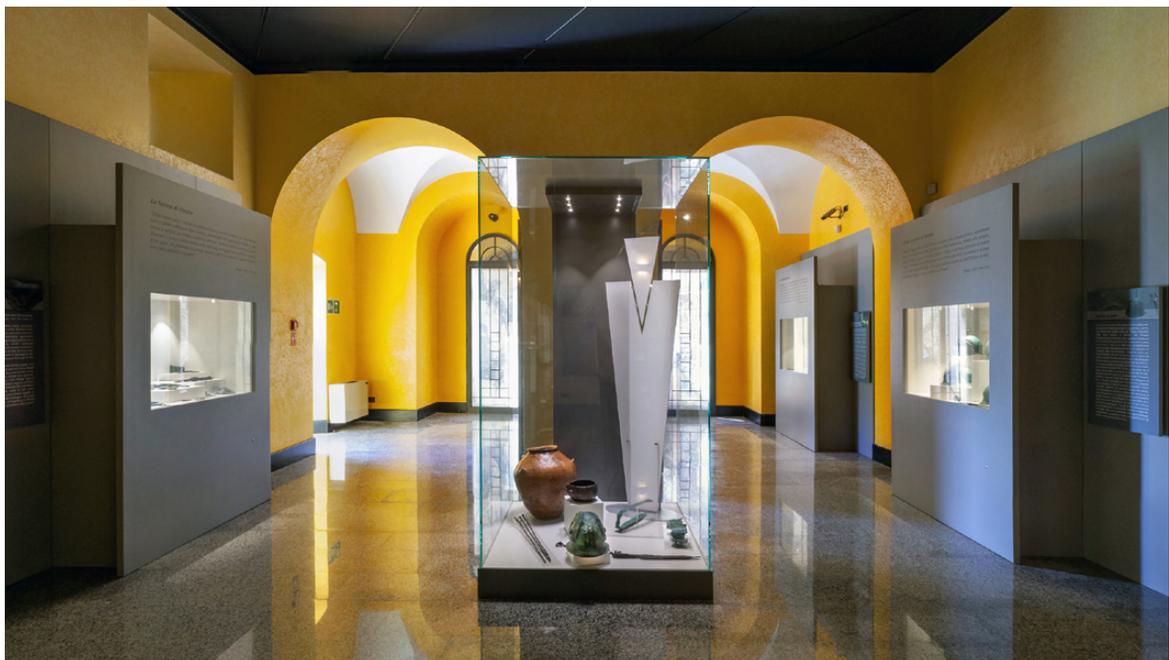
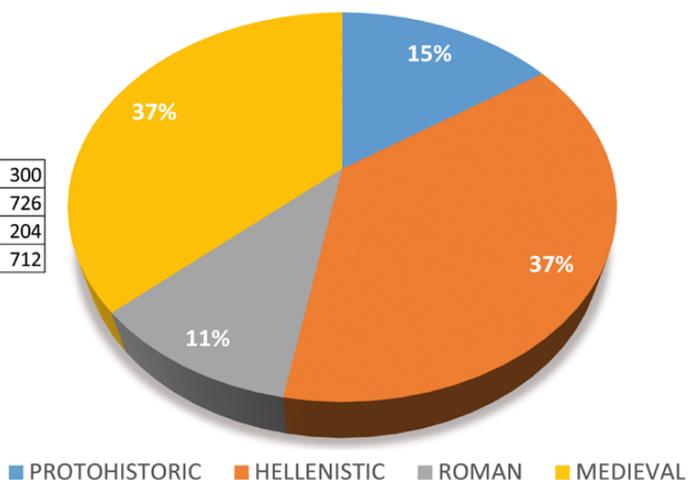


Figure 1. A panoramic view of the Pre-Protohistoric sector of the Samnitic Museum (picture by V. Epifani).

Table 1. Chronological distribution of materials in the permanent exposition of the Samnitic Museum of Campobasso.

PROTOHISTORIC	300
HELLENISTIC	726
ROMAN	204
MEDIEVAL	712



age). The Late Prehistoric and Protohistoric age represents approximately 15% of the total (Table 1).

3. Metals Ages

The most ancient finds in the Pre-Protohistory rooms (Figure 2) are the flint blades, knives and arrowpoints, in particular three arrowpoints with peduncles and wings, a kinive with a distinct tang and a retouched blade with converging edges with oblique truncation, found in Pizzone, (Biferno river valley) and comparable to the facies of Gaudo (Ceccarelli, Fratianni 2017, pp. 88-90). A hoard of bronze axes with raised edges exhibited in the same showcase was found at Vinchiatur, near Campobasso, and was dated to the Early Bronze Age (Terzani 1991b; Santone 2009). The Recent Bronze Age is represented by the artifacts found in the hut village of Campomarino, along the Adriatic coast; this settlement lasted until the first Iron Age (Di Niro 1991; Tagliamonte 1996).



Figure 2. Lithic and bronze materials from the Neolithic/Chalcolithic period to the Final Bronze Age. In middle the Early Bronze Age hoard of Vinchiatur. (picture by V. Carbonara).



Figure 3. Screenshot from the draw-motion video 'Tik & Tuk' (picture by V. Carbonara).

The archaeological material related to the second Iron Age comes mainly from funerary contexts, as in the case of the tomb of Trivento, Casale San Felice, where the body was buried with a helmet, bronze belts, a spearhead and spits in iron and some ceramic vases (Ceccarelli, Fratianni 2017, pp. 121-122). Other materials come from the provincial collection of the late 19th century originating from private collections: the objects are well preserved, but unfortunately decontextualized.

Many artifacts come from funerary contexts: in the case of male burials there are a lot elements of the panoply (helmets, belts, swords, spears, javelins); for the female burials especially jewelry (fibulae, rings, châtelaine). In any case the predominant material is bronze. It would therefore be fundamental to communicate to the visitor how the introduction of this league came about, the enormous importance it had within the societies of the time and the consequences on warfare and customs. For this reason, the protohistoric sector of the Samnite Museum has been chosen to develop a new visiting itinerary based on multimedia tools. The visitor can try it through the App 'Museo Sannitico - deaf experience', which can be downloaded for free on a smartphone. It is a visit experience also studied for hearing impaired people, as it is composed of in-depth cards focusing on protohistoric findings and a video entitled 'Tik & Tuk' (Figure 3), the story of two hunters from a village of 4000 years ago, used to explain the transition in technology from the Stone Age to the Metal Ages. The video uses the draw-motion technique, captivating images and a story written to be comprehensible to the deaf in order to explain the creation of bronze through to the fusion of copper and tin, which happened by chance. A representation of a crucial acquisition in the human history, which is often taken for granted. The itinerary belongs to the 'Smart Cultural Heritage 4All project'; based on the concepts of museum accessibility and universal design.

Bronze finds from the same sector have also been included in the 'Hydria project', based on the acquisition by laser scanner or photogrammetry of some of the most representative objects of the exhibition (Figure 4). This database will be used for reasons of research and documentation and at the same time for the creation of tactile replicas to be exhibited in temporary exhibitions. Both projects are carried out in collaboration with Unimol, the University of Molise.

4. National Museum of the Paleolithic of Isernia

Figure 4. 3D model of bronze dagger. (picture by V. Carbonara).

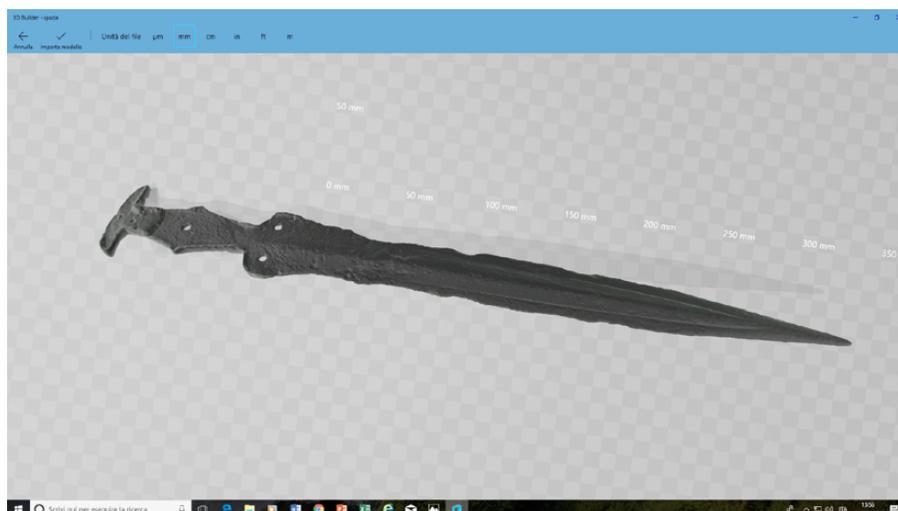


Figure 5. The National Museum of the Paleolithic of Isernia (picture by A. Di Nucci).



Figure 6. Archaeological area of 'Isernia La Pineta', detail. (picture by A. Priston).

The National Museum of the Paleolithic of Isernia, located in the eastern suburbs of the city of Isernia, covers a total area of 4,000 square meters and is divided into three large structures connected to each other, within a large green area of about 14,000 sq.m (Figure 5).

The design idea of this museum stems from the need to expose and enhance in the most appropriate and scientifically correct way the results achieved at the Paleolithic field of 'Isernia La Pineta', an archaeological area dated 610,000 years ago (Figure 6) and which today represents

one of the more significant evidence of the ancient human population of the European continent (Peretto 2013).

The original project envisaged that the entire exhibition path would center on the site of 'Isernia La Pineta' with the archaeological object as the central fulcrum of the exhibition criterion, supported by special lighting systems, pictorial reconstructions, diagrams and holograms for easier, immediate and detailed reading (Albrecht *et al.* 1996).

Over the years the original idea of the project is partly modified based on new exhibition requirements. The discovery of the site of Isernia has given a strong impulse to the scientific research of investigation on the whole regional territory, thus leading to the discovery of large areas of prehistoric archaeological interest (see Hight Molise) and archaeological sites that cover a time span that goes from the lower Paleolithic to the Bronze Age (Peretto, Minelli 2006).

Currently, the exhibition route is distributed as follows:

The evolution gallery. Great pictorial reconstructions document the main phases of human, biological and cultural evolution, from the first forms of the genus *Homo* to the Neolithic, in order to introduce the visitor to the great themes of Prehistory.

The room dedicated to the site of Isernia La Pineta: the site of attendance is presented to the public thanks to a reconstruction of a portion of the archaeological surface of the deposit, dismantled and faithfully reconstructed with the faunistic and lithic finds relocated in their original position. Archaeological material placed in the showcases, descriptive panels and a multimedia station, allow visitors to immerse themselves in the characteristics and peculiarities of the archaeological site and its findings (Figure 7).

The 'Prehistory in Molise' room. The third room show the further archaeological evidences found in the Molise territory and that cover a time span ranging from the lower Paleolithic to the Upper Paleolithic, from the Neolithic to the Bronze Age (Figure 8).

New enhancement needs, dictated in particular by the need to create a museum for the oldest human remains in Italy, a baby milk tooth from *Homo Heidelbergensis*, 5-6 aged, found in the



Figure 7. Room dedicated at the site of Isernia La Pineta, with a portion of original re-enact paleosurface (picture by A. Di Nucci).



Figure 8. The exposition room 'Prehistory in Molise'
(picture by A. Di Nucci).

archaeological levels of the Isernia La Pineta site (Peretto *et al.* 2015), led to a reflection on the current layout and a general review of it.

Starting from a general policy of renew of the concept of museum as a container of memorabilia, based on ministerial regulations and guidelines to be considered in the valorization and museum management ('Guidelines for the requirements of Museums for uniform quality levels', carried out in implementation of Article 114 of the Code of Cultural Heritage and Landscape, 'PEBA - Plan for the Removal of Architectural Barriers' to promote expanded accessibility in places of culture; 'Adoption of uniform minimum levels of quality for museums and places of culture of public belonging and activation of the National Museum System' Ministerial Decree of February 21th 2018), a general re-staging project was completed to satisfy the scientific, informative and conservative objectives just mentioned. It was agreed on the choice to restore the museum exhibition to the centrality of the archaeological site of 'Isernia La Pineta', both for its importance and for the particularity and charm of the find, with interventions aimed at:

- respond perfectly to the scientific needs and to the new necessities of the public searching emotions;
- to adapt, complete, improve the museum spaces to make the visit as an unique experience, also with reference to the external areas and the park;
- to increase the elements of interactivity and emotional involvement of public;
- to make concrete the museum's concept of extended accessibility;
- to implement the levels of protection and therefore conservation of the archaeological surface.

The aim is to create an installation with the new IT, multimedia and interactive tools, which today constitute the new frontier of museum exhibitions, such as to make it dynamic and capable of involving the user emotionally and educationally with new interest.

The exhibition was designed as a structure, where the traditional exhibition of archaeological material is integrated, with a fundamental role, with a scenographic setting consisting of life-size settings and reconstructions of animals and hominids.

The enhancement of the human finding will result in an installation with a 'strong theatrical character' where, based on a faithful mix of scientific data and artistic interpretation, a life-size reconstruction of the Homo Heidelbergensis child will take place.

This reproduction will be placed inside a scenographic environment, in direct visual connection with the room of Isernia La Pineta and the new layout of the great hall, thus acting as a hinge between the visit itinerary, dedicated to the general aspects of the Isernia Paleolithic field and the particularities of the site that will be exhibited in the remaining part of the great hall.

The 'hyper-realistic' reconstruction will be supported by a display case with a transparent touch screen, that will allow not only to exhibit the original find, but to show all the information related to it. The visitor will be the protagonist of the set-up and will be able to personalize his own experience of visit and his degree of detail according to his previous knowledge, age and any disability.

Even with an popularized connotation of the museum new layout, but on strictly scientific grounds, the project makes maximum use of the combination of classic type of illustrative apparatus (didactic panels, captions) and IT infrastructure, to best convey the archaeological contents. The multimedia component is widespread and stands only as a valid supplementary support to the 'classic' visit, not wishing to replace the significance and importance of archaeological finds.

5. Archaeological Museum of Venafro

Allocated in the former convent of Santa Chiara in the city of Venafro, built between 1621 and 1657, the museum had been created in 1931 to host the archaeological finds of the underlying Roman city. After the Second World War the former convent was used as a kindergarten and school, with the consequent disposal of the museum: only in 1971 the building was once again used as a museum, which was inaugurated in 1994. The museum collections have been enriched over 88 years of findings of different chronology and provenance. Most are related to the Roman city of Venafrum, above all materials of the theater, the amphitheater and the various domus, mostly coming from modern excavations; many stone materials or statues come instead or from recoveries made during public works in the '20s and '50s (like the 'masterpiece' of the collection, the statue of 'landolina' type venus) or from agricultural work in private estates and then donated to the museum (like the stone materials from the Roman necropolis of 'Alessandro Del Prete' collection); from other places in the surrounding territory come other Roman and Samnite materials, in particular from the necropolis of the archaic age of Pozzilli-Camerelle (Capini 1991; 2000; Acconcia *et al.* in press), or finds dating on Neolithic recently rescued during emergency archeology work. Some part of collection comes from the early medieval abbey of San Vincenzo al Volturno, although only part of the material found in the excavations has been integrated into the permanent exhibition, as the remainder remain in the deposit of the archaeological area of San Vincenzo al Volturno.

In general, Roman collections are clearly prevalent compared to the materials of other chronologies in the deposits (Table 2) and also in the permanent exposition (Table 3).

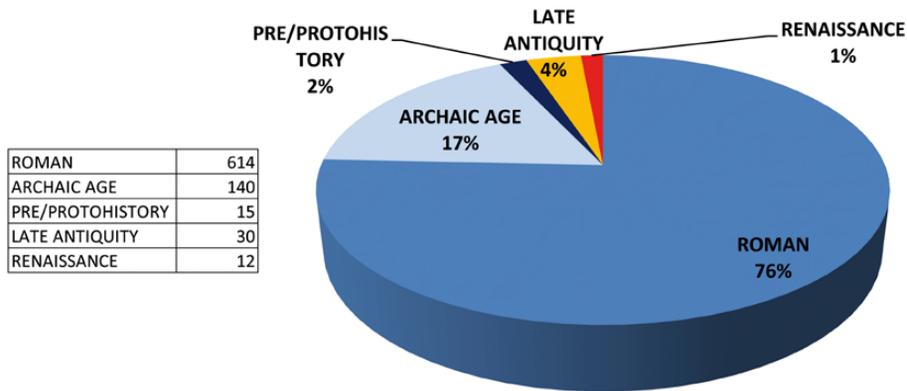


Table 2. Distribution of the chronologies of materials in the deposits of the Archeological Museum of Venafro.

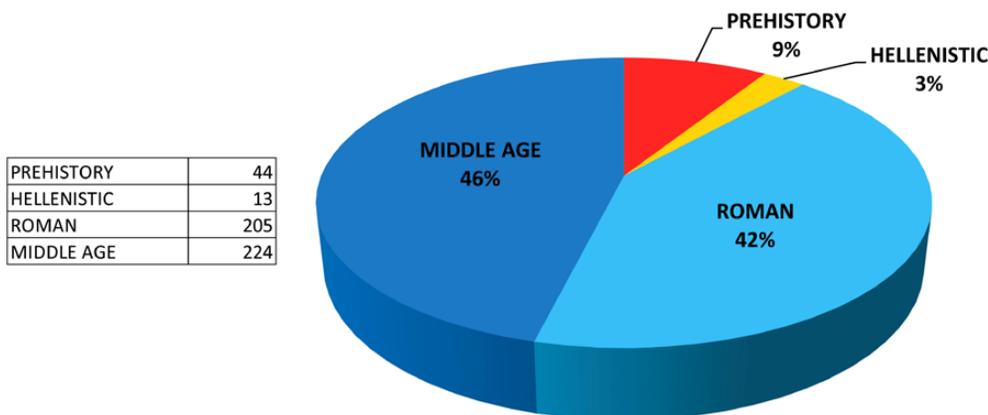


Table 3. Distribution of the chronologies of materials in the permanent exhibitions of the Archeological Museum of Venafro.

According to the shown general view, prehistoric and protohistoric collections in the Archaeological Museum of Venafro are a strong minority. But, at least the exhibits things are very important to one hand to the past of the city of Venafro and to other hand in general European.

During the emergency excavations of a the pipeline in 2014, hey have found just outside of Venafro the remains of a Neolithic open air settlement and, without this, a skeleton of newborn baby lying in a fetal position on the bare ground without a pit or kit. Material from settlement is being studied by prof. Alberto Cazzella and La Sapienza University of Rome, but a selection of pottery, flint, obsidian, polish stone tools and fragments of terracotta cladding are exposed temporarily in the room of museum, together at the baby skeleton. This group of materials has a double interest on two different levels: the materials of the Neolithic settlement for the most ancient history of Venafro, the baby skeleton because we do not know so far published, a skeleton of a newborn so ancient found isolated. Even the skeleton, however, is an important testimony to the local community, because it is the remains of the oldest known inhabitant of Venafro.

Problems that arose for this collection were two: 1) since there was no room for prehistory in the museum, they were exposed in an avulsed way in the first room dedicated to the pre-imperial Venafro, along with finds from the Roman Republican age; 2) the baby skeleton has been exposed in an inappropriate manner to its conservation and the visitor could not understand what was in the window, as the lighting and setting conditions were misleading (Figure 9).



Figure 9. the Neolithic baby skeleton in the former exhibition (picture by D. Delfino).

This has created the need to rethink the set up in order to: 1) give dignity to the baby Neolithic skeleton; 2) preserve it better; 3) transmit to the public the socio-economic context of the Neolithic human community that produced simple stone tools and ceramic fragments, in itself not significant for the public; 4) sensitize better the local community in the very ancient past of attendance of the territory of his city. In general another necessity, more than the museum rather than the collection, which could be satisfied was to create a prehistoric section: since that the vocation of the museum is preserve and tell the story of the territory of Venafro, it was necessary to fill the emptiness of absence of a prehistoric section in the permanent exhibition.



Figure 10. the materials from the neolithic settlement of Venafro- Tenuta Nola in the exhibition (picture by D. Delfino).

Figure 11. The Neolithic baby skeleton in the new exhibition (picture by D. Delfino).



Figure 12. The high school 'A. Giordano' during the inauguration of the exposition (picture by D. Delfino).

Program of alternation school/work by Ministry of Education and University Research, open to high school student it was a good opportunity to solve the problems: sensitize the younger generations to the oldest settlement of their territory, making them protagonists of the preparation of a prehistoric section in the museum. A two-month activity was then carried out with the Secondary Education Institute 'A. Giordano' of Venafro. Students, after a brief training on the archaeology and the Neolithic, they have been divided into 4 work groups (two students each) and each group prepared the exhibition paneling on the following topics: the archaeological context and the rescue archaeology, the science at the service of archaeology (dating AMS and OSL), the Neolithic as a step forward for our civilization, difference from Paleolithic, Neolithic and modern diet. Doing the drafting of the panels, students have: 1) learned notions on themes related to the Neolithic collection, 2 the way to explain in panels for the public and for peers, 3) learned the basic rules of creating a museum communication panel. One action for three different learnings. Later, together with the museum archaeologist and restorer, they set up both the showcase and the exhibition hall, thus learning to understand what were fragments of embossed pottery, of flint, of terracotta cladding, of flint and of obsidian cores found before ending up underground.

It took advantage of the preparation of the exhibition to improve the presentation of the skeleton of the neolithic newborn and, above all, re-place it in better conservation conditions (Figure 11).

Finally the last day of school, students involved in the work were guides to the whole school (120 students) that visited the exhibition and the museum (Figure 12).

6. Conclusions & perspectives

The prehistoric and protohistoric collections in Molise, and its disclosure, are of fundamental importance for several aspects of problematic in the research involving the Paleolithic, the Neolithic, the Bronze Age and the Early Iron Age. The Paleolithic is known quite well and the best way to transmit to the general public the large amount of information coming from research is to be sought (Peretto *et al.*); the Neolithic in the region is important as it introduces the domestication of animals, which will be the base of the regional economy for millennia (Barker 2001); Bronze Age is a period of more than 1000 years for which there is little evidence so far studied, but that does not do justice the age that sees the formation of complex societies and that sees Molise straddling two lines of Mycenaean presence in Italy: the lower Adriatic and the Middle Tyrrhenian; First Iron Age is the period that leads to formation of the most famous feature of the pre-Roman Molise, the people of Samnites, but for which it is necessary to raise the awareness of the public in how little has been said and transmitted for centuries IX-VI AD. In general, need to enhance the public disclosure about the human societies living in Molise between Neolithic and Iron Age, which are still an inexplicable 'black hole' in the showcases of the museums.

Among the ongoing projects to promote the dissemination of scientific data, not only protohistoric prehistoric, there is the project 'Molise M.A.C.R.O.'. Is a strategically way to enhance scientific data about pre and protohistoric collection to the public: not only to the disabled public, but also to all the public with the immersive storytelling in the App, with the 3D replicas and artifacts in 3D environment, touch replicas and multisensorial equipment: after its realization in the Samnitic Museum, is provided its realization in the State Museum of Paleolithic of Isernia.

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Unlocking La Cotte de St. Brélade: making Jersey's Pleistocene heritage accessible

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Abstract

La Cotte de St. Brélade has remained dormant since the 1961-1978 excavations of C.B.M. McBurney. Archaeologists have paid little attention to the site assuming that all the surviving deposits lay behind a protective concrete wall. Since 2010 a field project drawn from major UK institutions has focused research on the La Cotte archive and on deposits disturbed by tidal storm surges. This work has established that Middle Pleistocene deposits are preserved at the site outside of the protective wall, but these are under severe threat from further storm damage and rising sea-levels. A major engineering operation is being undertaken to protect the surviving deposits and create a safe working environment for international multidisciplinary research teams. This is only possible because La Cotte is considered as an integral part of Jersey's historic environment communication, education and tourism development strategies.

Keywords: Pleistocene, Neanderthal, heritage management, site conservation

Résumé

La Cotte de Saint Brélade est restée en sommeil depuis les fouilles de C.B.M. McBurney entre 1961-1978. Les archéologues ont peu prêté attention au site, supposant que tous les dépôts restants se trouvaient derrière un mur de béton protecteur. Depuis 2010, un projet de terrain mené par d'importantes institutions britanniques a porté sur les archives de La Cotte ainsi que sur les dépôts perturbés par les ondes de marées. Ce travail a établi que des dépôts datant du Pléistocène Moyen ont été préservés sur le site, en dehors des murs de protection. Mais ils sont sérieusement menacés par les dégâts causés par des tempêtes et l'élévation du niveau de la mer. Une opération d'ingénierie majeure est en cours pour protéger les gisements restants et créer un environnement de travail sûr pour les équipes internationales de recherche multidisciplinaires. Cela est possible car La Cotte est considérée comme partie intégrante de la communication du patrimoine historique de Jersey, et des stratégies de développement du tourisme et de l'éducation.

Mots-clés : Pléistocène, Néandertal, gestion du patrimoine, lieu de conservation

Introduction

Jersey is a British Crown Dependency outside the United Kingdom and European Union and consequently beyond the reach of national heritage management frameworks and funding streams. Via the UK Jersey is party to International Heritage Conventions, Treaties and Charters including the Convention for the Protection of the Architectural Heritage of Europe Granada (1985), the Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta, 1992) and the Convention Concerning the Protection of the World Cultural and Natural Heritage (1972), but relevant obligations are delivered under local legislation and resources are to a degree constrained by limitations in both areas.

Until 30 years ago much of the management of cultural heritage in Jersey was undertaken by the local National Trust and the Société Jersiaise, chiefly through acquisition and direct management.

The Société acquired La Cotte de St Brélade from a private owner in the 1950s to help ensure its future as an archaeological site and licenced excavations by the University of Cambridge. In the early 1980s the Société adopted a policy to halt further excavations, thus maintaining the site for future generations.

Over the last 30 years the States of Jersey's responsibilities for heritage management have been largely outsourced to Jersey Heritage, an independent non-profit organisation operating museums, archives and public records, heritage sites management and heritage advice including listing and aspects of archaeological monitoring services to the Environment Department, who are the regulator under local planning legislation. But because there is no history of holistic direct government engagement with cultural heritage management there are gaps in the current infrastructure which Jersey Heritage has been seeking to address. For example, there is no State Archaeologist, no legislation for Treasure or portable antiquities and no government Historic Environment Record.

However, the value of individual heritage sites as attractions has been recognised in terms of tourism and government support for heritage has tended to be focused towards that end. More widely, Jersey Heritage is working with local and national partners to develop the public value of heritage in terms of landscape character, as a participatory activity promoting inclusive community identity and as stories significant in international relations. The current project for the conservation management of La Cotte de St Brélade links all those themes, through a series of related developments.

Ice Age Island is a communications programme which since 2012 has sought to valorise the significance of Pleistocene and Holocene archaeology in Jersey. The programme was initially funded by Jersey's Tourism Development Fund and by Jersey Heritage. Notable achievements have included annual public excavations of a Magdalenian site at Les Varines, producing an inscribed plaquette fragment, perhaps 'the earliest art in Britain' (Hills 2017); identification of a new Neanderthal site at Petit Port, Gorey based on 19th century finds (Pope *et al.* 2012); preparation of the c. 90,000 La Cotte de St Brélade finds for an online catalogue (Shaw & Scott forthcoming); and a number of museum exhibitions. Importantly for Jersey these projects have partnered with The Natural History Museum, The British Museum and academics from a number of UK universities as well as linking local stakeholders and volunteers.

Ice Age Island has dramatically added time depth to public appreciation of the landscape. The early focus of work on coastal sites around the Island under the project banner has reframed local public and political attention on heritage as a value of landscape rather than of discreet visitor attractions alone. This is an issue of great significance in a small island where all land use is highly contested and opens up the broader value of heritage not only in future tourism development but more widely as a cultural resource for Islanders.

Perhaps the most significant lesson arising from Ice Age Island project is the value for a small Island nation of international expert partnerships. The development of capacity and expertise through international institutional partnerships has been at the heart of a ten-year programme to assemble resources to address challenges at La Cotte de St Brélade. Expanding, strengthening and deepening those partnerships is now a priority. A Research Framework for all periods is in design which will seek long term partnerships with national and international institutions. But a pre-requisite of that is collation and publication of current knowledge amongst existing stakeholders. In 2017 Jersey Heritage funded the establishment of an Historic Environment Record an online resource using the ARCHES platform developed by the Getty Conservation Institute and the World Monuments Fund. We are half way through this 3-year project.



Figure 1. Aerial view of La Cotte de St Brélade & Portlet Common – 6th August 2015 © Chris Brookes Aerial Photography.

These ongoing initiatives are important strands in the ambition to achieve for Jersey designation as a UNESCO Global Geopark. This recognises the significance of the international heritage community in creating umbrella structures to co-ordinate the effort of multiple local and external creators of heritage value towards a common purpose. That purpose ultimately reflects the prioritisation given by residents of Jersey to landscape as the primary definition of ‘heritage’. Geopark links deep-time stories with natural and cultural heritage perhaps more immediately visible to communities of heritage users and emphasises its value in terms of sustainable tourism development. That links back to the situation that in Jersey, not eligible for UK or European Union heritage funding, government interest in funding has been largely driven by instrumental economic agendas. Central to all these ambitions is the project at La Cotte de St Brélade (Figure 1).

History of Research

La Cotte de St Brélade was first recognised as a prehistoric site in 1881 when a worked flint was found on rocks beneath the entrance to the cave. Unsystematic collecting of worked flint and bone continued until 1905 when the Société Jersiaise began investigations. Work was hampered by the threat of rock falls and quarrymen were employed to clear precarious blocks of stone and debris, probably removing archaeological deposits in the process (Rybot 1956).

Investigation resumed in 1910. Unfortunately, no plans or diagrams were published with the report of the first season’s work. The deposits were described as black soil comprising layers of ashes, carbonised wood and clay mixed with bone detritus and clay compacted into a breccia. About a hundred flint bifaces of ‘Mousterian type’ were recovered. The presence of bone was noted throughout the layers but in very poor condition. Within one clay matrix at a slightly higher level than the burnt layer nine human teeth were found (Marett 1911; Nicolle & Sinel 1911). These were subsequently identified as coming from a Neanderthal (Keith & Knowles 1912).

In 1913 the British Association for the Advancement of Science appointed a committee to undertake further exploration at La Cotte de St Brélade. During 1914 workmen began clearing rubble from the upper part of the cave filling aided by explosives. Along the eastern wall some evidence for stratification was observed. A black ash layer overlay a sterile deposit under which was a layer of

clay containing flint and bone in considerable quantity. At the top of this layer three mammoth teeth and a number of implements were found (Marett *et al.* 1915). In 1915 the cave collapsed depositing some 500 tons of debris. This fall of course put an end to the season's excavations, and a further 200 tons of rubble fell during the winter.

Faced with the task of clearing some 700 tons of rock debris the next three seasons, 1916-1918 were mainly devoted to removing the fallen material (Marett *et al.* 1916). No official excavations were carried out between 1919 and 1936. Clearance work continued from 1936-1940 until investigations were brought to an end by the German invasion and Occupation of the island. In 1938 Professor Frederick E. Zeuner, the eminent Pleistocene geologist and archaeologist, visited Jersey and made a critical examination of the Pleistocene cave sites. He re-excavated part of the trial trench dug in 1911 and showed that there were two distinct 'peat' layers. Up to 1940 the peaty soil was regarded as the base of the whole cultural sequence, probably with a marine raised beach only a short distance below. Zeuner advised Père Burdo, the excavator, to look for further archaeological deposits below them (Zeuner 1940).

Burdo's work in the 1950s is of particular significance in that he established that there were two phases of hominin activity represented in the stratigraphy and artefacts at La Cotte de St Brélade. One represented by 'Mousterian' artefacts, the other by handaxes of Acheulian type (Burdo 1960).

The University of Cambridge commenced research and training at La Cotte de St Brélade in 1960. The work was designed to build on that of Burdo and was directed by C.M.B. McBurney (Callow & Cornford 1986). In 1961 and 1962, he concentrated on trenching at a lower level than Burdo had reached and on recovering fresh samples of artefacts from a more precise stratigraphic context than previous techniques had permitted. The presence of an 8-10 metre raised beach at the foot of the cliff was demonstrated and has proved to be the key to the La Cotte de St Brélade sequence (McBurney 1962, 1963).

In both 1966 and 1968 a considerable amount of largely sterile overburden was removed so that the loesses could be excavated. In 1966 a number of bones of large mammals were discovered in these layers. In 1968, when the cutting had been extended both northwards and westwards, it became apparent that the mammoth and woolly rhinoceros bones formed a deliberate accumulation, of a kind previously unknown in cave deposits of this antiquity (McBurney 1969).

In 1973 and, after removal of a layer of slabs that had fallen from the west wall in antiquity, work commenced on another 'bone heap' directly below the first in an earlier loess layer which gave rise to the 'mammoths driven off the cliff theory' (Mourant & Callow 1986).

Immediately after the close of work the principal sections were walled in, to protect them from erosion by natural and human agencies, and in the expectation that no further excavations would be undertaken at the site for many years.

Callow took over the work following the death of McBurney and in 1980 collected fresh soil and pollen samples. In the course of the next year the laboratory work on these and other samples, together with an exhaustive analysis of the excavation records and the first age estimates based on thermoluminescence, made apparent the need for a drastic revision of the environmental sequence and dating, coupled with a modified depositional model. Therefore, in 1981 fresh work was carried out at La Cotte de St Brélade. Such sections as were still accessible were cleaned up and new soil samples taken, and two small cuttings were made in the floor of the site, south of the retaining wall.

After a lull of almost thirty years archaeologists began again to take an interest in La Cotte de St Brélade but this time as part of wider research in the island. The Quaternary Environments

and Archaeology of Jersey project brought together a multidisciplinary team of archaeologists, geoarchaeologists and lithic specialists working on the site and archive. The 2010 investigation established that large parts of the site remained unexcavated and these deposits contained in situ archaeology. The extant deposits comprised a complete sequence – including the missing stratigraphy from the 1910 excavation which had produced Neanderthal remains. It has been established that there is an extended sequence covering much of the late Middle and Upper Pleistocene (MIS7 – MIS3) reflecting periodic occupation and abandonment of site by Neanderthals (Shaw *et al.* 2016). The Neanderthal teeth are likely to post-date the beginning of MIS3, whilst the occipital must post-date the teeth by a significant period. It is now possible to investigate the changing nature of occupation in response to local and regional conditions and have identified stratigraphic and environmental context of some sediments exposed by erosion (Scott & Shaw 2018). Reinvestigation of the human remains and associated archaeological material is now feasible. Significantly an alternative view for Neanderthal hunting strategy to the game drive hypothesis can now be postulated (Scott *et al.* 2014).

Current Engineering Works

Long under threat from coastal erosion, as noted by McBurney in 1960, and from illegal removal of artefacts, work is now underway to stabilise and protect the remaining deposits. The urgent necessity of these works was flagged by a number of recent storm events when waves, compressed by the high sided ravine, entered the site at 14 m, eroding the base of the bluff of unexcavated deposits (Chowne 2018).

The first consideration has been establishing working conditions at the site compatible with contemporary safety requirements far removed from the last periods of active excavation in the 1970s when archaeologists entered the site via a ‘goat track’ along the cliff and down wooden ladders lashed together. Rock netting secured by pins up to 10 metres into the rock across three faces of the ravine has created a working area sufficient to enable a first phase of engineering and associated archaeological work. In this designated Geological Site of Special Interest there was careful consideration of the relative value of the natural structure and its appearance and the at-risk deposits. A 13 m x 4 m seawall with a lifespan of 30 years has been constructed across the western, seaward end of the ravine system using granite faced, grout filled gabions up to the 14 m level (Figure 2).

The next phase of work will focus on the stabilisation of remaining unexcavated deposits, aiming to achieve, under archaeological control, a stepped profile of the West Ravine deposits and emplacement of spoil behind the gabion sea wall. This work, to be phased over a number of years, is crucial in establishing the significance of remaining deposits and therefore longer-term management plans for the site (Figure 3).

Public access to the works was initially held to be an important goal, especially given the success of public engagement at other sites in the Ice Age Island programme, but because of the safety issues that will not be possible to achieve at this initial stage. The archaeological team will enter the site under supervised rope access via the now stabilised eastern cliff face. However, using 3D laser scanning from survey work by University College London a virtual reality experience of the site is in development and has been used at fundraising events.

This is very much a beginning of a new phase for La Cotte de St Brélade. The current engineering works will not address safety in much of the site. The deep sounding left by Callow and the concrete wall containing remaining deposits in the North Ravine will remain off limits and vulnerable. Very major and costly engineering works will be necessary to make the area under the rock arch safe for management work.

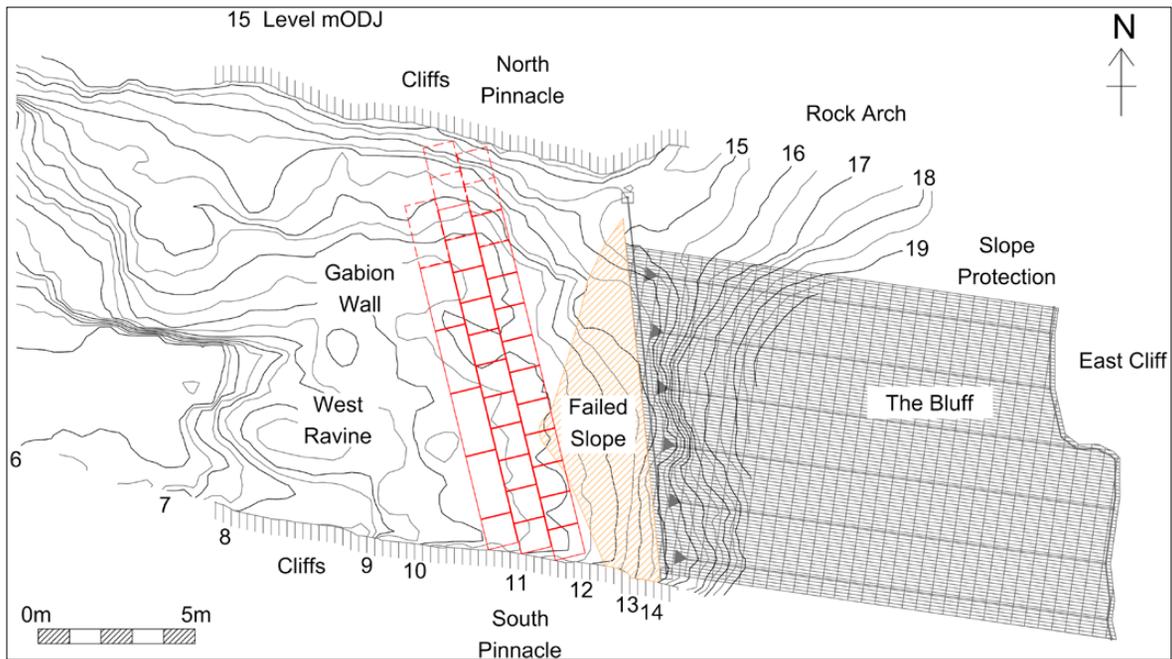


Figure 2. General plan of site conservation measures. Failed Slope is a Head deposit, the gabion wall will protect the Pleistocene sediments from storm surges and a rising sea-level. © Geo-Design Consulting Engineers Ltd.

Figure 3. View along the West Ravine. Security netting has been installed against the unstable rock face. Head deposits are under the black matting, these will be archaeologically investigated over several years.



The Future

So much of the future for the sites comes back to the issues of funding. These initial works have been funded by Jersey Heritage from charitable reserves created by a period of successful trading in its museums and heritage attractions work. Jersey Heritage has taken on a lease of the site in order to fund and manage this stage of the site's history.

In the absence of external funds, the future of work at La Cotte de St Brélaide falls at this stage to the Government of Jersey. Questions of the responsibilities of government to heritage in the context of all the other demands on government expenditure in a low tax area will be to the fore.

So too will questions of the public value of heritage. In that perhaps the greatest element is the advice and support and expertise provided by the international community of specialists whose work is acknowledged here.

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Abstract

The prehistoric remains found in Colmaggiore di Tarzo and the desire to promote lakes history and environment is at the origin of the Parco Archeologico Didattico del Livelet project. This open-air museum, partner of EXARC, is located on the west shore of Lago lake at the foothills of the Treviso Pre-Alps' foothills (Italy). It is characterised by three full-scale pile-dwellings' reconstructions dedicated to Neolithic, Copper Age and Bronze Age, an exhibition hall with imitative materials, workshop and teaching areas. Since 2013 the staff began to create out some tools and clothing replicas, and to organise Live interpretations activities.

Keywords: archaeological open air museum, pile-dwellings, educational activities, ancient technology

Introduction

The Parco Archeologico Didattico del Livelet is an open-air museum designed on the western shore of the Lago lake in the municipality of Revine-Lago, province of Treviso (Italy). The area is located in a glacial valley at the foothills of the Pre-Alps at 225 m asl. In this context, the Lago and Santa Maria lakes, joined by an isthmus, are the sole survivors of the Piave ice sheet's passage, occurred during the Quaternary glaciations (Ehlers and Gibbard 2004) (Figure 1). Livelet is surrounded by



Figure 1. Satellite image, Google Earth. Lago and Santa Maria lake, municipality of Revine Lago and Tarzo. Province of Treviso, Veneto Region (225 m asl). Contextualisation of Colmaggioire di Tarzo archaeological site and Livelet Park and detail of the two lakes in the glacial valley. At the bottom, the surrounding of the Pre-Apls.

a rich natural environment and is recognised as Site of Community Importance (SIC) by the Rete Natura 2000, the European Union policy's main instrument for biodiversity conserving. Recently it has also been included in the Parco dei Laghi della Vallata, an initiative developed by the municipalities of Revine-Lago and Tarzo in agreement with other municipalities of the area, the Province of Treviso and the Veneto Region, and developed in collaboration with Livelet open-air Museum, to boost tourism in the valley, with a compatible and sustainable proposal for territory's development. Since 2019, the area is also included in the core zone of 'Le colline del prosecco di Conegliano e Valdobbiadene' UNESCO heritage (AA. VV. 2019). Moreover, it is also a member of EXARC.

The structure was opened to public in May 2007. It was established in collaboration between the Soprintendenza Archeologia, Belle Arti e Paesaggio per l'area metropolitana di Venezia e le Province di Belluno, Padova e Treviso (SABAP) and a multidisciplinary scientific study carried out by the Archaeologist Dr Ausilio Priuli and the Architect Ezio Padovan. For its management, from 2007 to 2008, the provincial administration of Treviso decided to involve the Veneto Region Servizio Forestale for the construction, the Pro Loco of Revine-Lago for the ticket office and logistic, the Corbanese Research Center (CRC) for guided tours and educational activities, the Natural History and Archeological Museum of Montebelluna, Prof Marco Peresani (Ferrara University) for the training of specialized educational operators, the planning of activities and the drafting of didactic notebooks. Since 2009 the Province has developed a partnership with Pro Loco UNPLI Treviso, and now management is regulated by a specific agreement between UNPLI, the Municipality of Revine-Lago and the consortium Pro Loco Quartier del Piave (Stefani and Munno 2019; Modolo *et al.* 2019).

The archaeological site of Colmaggioire di Tarzo

The first important discovery in the lakes area dates back to 1923 when a Sauerbrunn bronze sword (15th century BC) was found during the excavation of an artificial canal connecting the two lake basins, followed by another analogous little sword and two Peschiera daggers (13th century BC). In 1987 further excavations conducted to extract peat, documented the first pile-dwelling

remains (burnt wooden fragments, plank floors and embankments). On this circumstance the SABAP of Veneto Region was alerted and promoted a first survey campaign in 1989, followed by two excavations in 1992 and 1997. These fieldworks proved that these remains belonged to a peri-lacustrine settlement representing one of the most important pile-dwelling sites of northern Italy. Daily-use objects as lithic tools, flint and polished-stone weapons, bowls, vessels, ceramic pots and handles, colanders, flat whorls, loom weight, faunal and palaeobotanical remains, helped to establish the daily life of these human groups and to reconstruct diet and subsistence strategies. Economy was based on agriculture with cereal farming (documented by discovering of sickle blades and millstones) and cattle-breeding. Hunting, fishing and collecting represented a vital resource, as confirmed by faunal remains, molluscs' freshwater shells and wild fruits (hazelnuts, acorns, water chestnuts and dogwood berries)' (Arnosti and Longo 1988; Bianchin Citton 1990, 1992, 2002).

According to pottery, Colmaggione site dated back to final Neolithic (culture of Square Mouthed Vases and culture of Lagozza) and early Eneolithic (culture of Remedello) with a frequentation during the ancient and middle Bronze Age (Bianchin Citton 1990, 1992).

The (re)constructions of the pile-dwelling village

Livelet open archaeological museum is characterised by the (re)constructions of three full-scale pile-dwellings, achieved using methods and materials also available in the past and respectively dedicated to the Neolithic, Copper Age and Bronze Age.

The realisation was forerun by a partial drainage of the area, allowing space for trees, shrubs and other herbaceous species in according with the autochthonous vegetation. The village has been built mostly using wood like chestnut, spruce, oak and cornelian cherry to guarantee a philologic reconstruction and sustainable solutions.

Since only few well preserved remains of huts were documented in the Colmaggione site, the approach used for reconstructions was based on the study of the well-preserved site of Fiavé (Trento) (Perini 1972, 1984, 1987; Bagolini and Perini 1975; Bellintani *et al.* 2014) as well as on ethnographical comparisons (Tieto 1979). The three structures represent different types of prehistoric settlements used in humid environments: one built on dry land, one half on land and half on water and one totally on water (Figure 2). All elements meant to remain immersed were

Figure 2. Particular of the Copper (half on land and half on water) and Bronze Age pile dwelling (on water) reconstruction. The one of Neolithic, not reported in the photo was completely built on the mainland.



crafted in larch wood, particularly remarkable for its resistance since prehistory but not available at our altitude. This compromise guarantees visitors safety and easier structures' maintenance. Walls were constructed using cross-sections of lakeside reeds anchored to structural elements and then covered with a mixture of clay, straws and sand. Roof covers were obtained with a traditional technique that uses overlying reed sections of about 30 cm of width fixed to a wooden structure with ropes and weaves.

Some archaeological remains of the Colmaggiore site and others documented in contemporary sites inspired the reconstruction of interiors and tools as they are representative of this ancient period.

Equipped spaces and educational areas

The total area of Livelet is about 15,000 sq m. In addition to the pile-dwelling village, it is also includes other areas: two big buildings, a playground, a hemicycle area and the gardens. The ticket office and the bookshop are located near a projection room for conferences, seminars. This first building gives access to the children playground: a space also equipped with barbecues and picnic tables. The second building include a workshop room in which prehistoric reproduced materials are exhibited and a large room used for workshops that can be divided in two smaller ones, by means of a sliding door. The hemicycle area is an opened/covered area used for workshops, events and groups welcoming, especially during summer. Before the pile-dwelling village area, a vast garden is dedicated to visitors and children, as well as for birdwatching, thanks to a hut positioned close to the fence (Figure 3).



Figure 3. Map of Livelet: 1) parking; 2) first building with bookshop and projection room; 3) playground area with barbecue and picnic area; 4) reconstruction of small pile-dwellings used for one of our workshops; 5) burial mound area; 6) pond protected area; 7) hemicycle area with experimental archaeology space; 8) second building with a workshop room and another large room used for workshops that can be divided in two rooms thanks to a sliding door; 9) Neolithic open-air hearth; 10) archaeological excavation area; 11) small cave with palaeolithic rock-art; 12) birdwatching hut; 13) Neolithic pile-dwelling (on mainland); 14) Copper Age pile-dwelling (half on water and half on land); 15) Bronze Age pile-dwelling (on water).

All along the route from the first building up the village area, panels dedicated to the lake's environment can be easily consulted by visitors. Some educational areas are open-air and used for workshops and demonstrations of ancient technology, while in a space dedicated to burials, two Bronze Age burial mounds were reconstructed in scale (Cassola Guida and Corazza 2002).

Our offer: teaching and dissemination activities

Livelet is seasonally open since 2007. From mid February to mid November, from Monday to Saturday, our offer is reserved for school groups. The structure can host five groups per day, composed of 17-30 students. Opening time for the public is from April to October on Sundays and holidays. The flow may vary between 100 and 800 people per day depending on season and event. During the summer holidays, the Livelet accepts bookings of two/four-day or two-week summer camps and organising internal summer activities.

Schools and groups can choose from a wide variety of activities. Pile-dwelling tours and naturalistic hikes are always guided, and workshops always held by an educational operator. All activities are characterized by scientifically correct contents and spread with interaction and involvement, giving importance to a mutual exchange between staff and public and value to everyone's cultural baggage.

The offer includes various packages designed for all school levels (childhood, primary and secondary). Teachers who choose Livelet as a destination for school trips can focus on archaeological or naturalistic itinerary or combine them with a personalized package. During archaeological tours, students and teachers can visit the reconstructed pile-dwellings accompanied by an archaeologist. Didactic activities include nine thematic workshops such as: archaeological excavation, bread production, reconstruction of small huts, hunt with bow and harrow, music and sounds, weaving with the loom, netting with vegetable fibres, clay shaping and decoration with ochre and prehistoric burial excavation. However, classes who participate in naturalistic hikes are accompanied by a qualified guide to take an excursion along the lake shores and completing the visit with workshops dedicated to animals and plants observed in the field. Educational operators can also be called directly into classes to fulfil workshops committed to Prehistory, Ancient Egypt and the Roman Period.

Weekends and opening days addressed to visitors, families, tourist and groups, include guided tours of the village and workshops dedicated to prehistory, archaeology or nature. The annual agenda also comprehends special events, seminars, conferences, evening openings, workshop and ancient technology demonstrations, also including operators from other museums.

Ancient technology and experimental archaeology

Since 2013 Livelet's staff began to work on replicas of objects and demonstrations of ancient daily activities, that we carry out for the public, involving our staff and external archaeotechnicians, and to organise an annual Living History day (Graham *et al.* 1972; Mathieu 2002).

The most successful was the reconstruction of a sword, starting from Colmaggiore di Tarzo's original find, kept in the Civic Museum of Conegliano. Thanks to a collaboration with a group of archaeotechnicians, we contributed to their research on ancient weapons and moulds used for casting. Moreover, it has been possible to create a new object exhibited during a special event with the public, and collect helpful information and data to foster research.

Other activities include the clay pots firing, the loom weaving, the bows and arrows construction, the creation of chipped or polished stone instruments, the use of reconstructed musical instruments, the basketry and netting. One of the last activities we conducted had been the

production of Neolithic clothes in linen and kidskin, some of them dyed with natural pigments and the re-construction of prehistoric burials. Furthermore, once a year, we offer a Living History day to represent the way of life of Neolithic communities and in which we practise Live Interpretation, as defined by IMTAL Europe. In relation to the theme, event of involved staff, this activity was tested both in role or simply in costume.

At Livelet, an ancient technology has also been used to construct the pile-dwellings, with all their compromises, primarily due to building regulations, safety and maintenance: this is carefully explained to the public to help interpret what they are observing and touching. Also, most parts of the furnishings (for example, tools or clothing) are made with this approach.

Some international collaborations

As member of the international network EXARC that includes open-air museums and professionals, working in the field of ancient technology and experimental archaeology, our park believes in exchanges. Annual meeting opportunities, such as the Paleofestival of La Spezia (Italy), give us the possibility of constant renewal and enrichment of our offers, encouraging visitors' return and the possibility to promote outside the Livelet. In some cases, initiatives started as occasional collaborations has been developed as part of the permanent offer, while others, change from year to year involving different subjects. Visitors, tourists and children can benefit from the occasional presence of exterior staff members to experience new activities, brand new topics and know other local or far realities. In this way, during some annual events is easy to meet operators from other museums, institutions or associations involved in educational activities and staff exchanges, or activities organized in collaboration with the Pro Loco, the Lago Folk Fest and the Lago Film Fest. These can take place as reimbursed services or take the form of professionals and activities mutual interchanges. Both activities and days are carefully chosen to best catch exchange opportunities.

Results

Livelet open air museum offers an interactive experience through materials, objects, houses and techniques, comparable with the old ones and contextualized in a similar natural environment. This make it a powerful tool for didactic activities able to thrill audiences of all ages.

The peculiarity of Livelet, given by the proximity to the prehistoric site of Colmaggiore di Tarzo, make the suggestion even bigger: despite the impossibility to access and visit the site. In this sense, the open-air museum is no longer just a static exhibition space, but becomes a place where people can experience sensory, emotional and cultural knowledge.

There is a well-defined geographical and chronological framework, ensuring an important development for local communities.

To become an important element in the market, the museum offers a unique and different experience: something people cannot try elsewhere. Livelet welcomes visitors regardless of their knowledge, offering new yearly proposals and, above all, ensuring that those who participate become part of the museum itself. The growing number of annual visitors highlights these aspects: in 2018 we hosted over 11,500 students, 6,100 visitors and attracted nearly 1,400 children and young people with summer activities, for a total of 19,000 attendees.

Conclusions

According to EXARC (<http://exarc.net>) and Paardekooper (2012: 23) definition: 'An archaeological open-air museum is a non-profit permanent institution with outdoor true to scale architectural reconstructions primarily based on archaeological sources. It holds collections of intangible heritage resources and provides an interpretation of how people lived and acted in the past; this

is accomplished according to sound scientific methods for the purposes of education, study and enjoyment of its visitors'. This description includes a wide variety of open-air museums in structures and proposed activities: archaeological sites with *in situ* reconstructions, archaeoparks, open air-museums, research and educational centres (Zifferero 2001). They all have some commonalities: experimental activities based on archaeological data obtained from excavations and/or researches (Comis 2006, 2010, 2014, 2019); workshops for schools and visitors of all ages and reconstruction of buildings and furnishings. A good compromise is to carry out reconstructions only when the building or the original remains are no longer available, using similar materials and techniques, as in our case, as in our case (Paardekooper 2012).

To make this 'machine' functional, it is necessary to promote the museum to experts or enthusiasts and any visitor type. Therefore, it is indispensable to define which type of museum we want to be: at a high competition, for enthusiasts or professionals or all kind of people, allowing anyone to take advantage of an original and different experience. The latter is the case, among others, of the Livelet Park. Through pile-dwellings' reconstructions, we can quickly and immediately spread and show how houses and objects were made. This is possible through copies made with the same techniques and materials of the past. In this way, experimental archaeology is made available to the general public. Guided tours and workshops allow us to create a synergy between professionals and archaeologists working in the park and visitors who want to take advantage of our services.

Thanks to activities such as the Living History, re-enactmen (Magelessen 2007) or edutainment (Comis 2014), we offer a representation of past life situations involving the public through an educational experience. This allows to transmit the historical knowledge through alternative and even fun methods.

With the international network of EXARC it is possible to give and receive support ranging from more general aspects of museum management (marketing, management, staff, etc.) to those more practical, related to educational laboratories, experimental archaeology, use of new techniques and new material experimentations. In Italy, we have at least ten museum institutions that can be defined as open-air archaeological museums, while more than 250 are internationals. European projects promoted by EXARC help encourage these museums' development and growth, enhancing past knowledge through an evocative approach.

However, this network must linked to the territory in which the museum is located. Very often, some of these museums are small realities that do not provide a tourist offer for more than one day. For this reason, territorial associations, tourist operators (hoteliers and restaurateurs) and other civic or municipal museums become fundamental to collaborate and support communication and promotion. Therefore, to create a good and innovative tourist network is fundamental to involve local actors as institutions, Pro Loco or inhabitants, as they best know local realities. Furthermore, as schools are the first users taking advantages of these changes, it is important to create an attractive and interesting offer.

On the base of these concepts, we can say that Livelet open-air museum is active at 360°, not only for didactic and tourist offer, but also in the creation of international and local networks that allow a constant exchange of information, knowledge and synergies.

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The Temple Machine. A New Communication Model for the Villa Giulia National Etruscan Museum

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Abstract

The reorganization of the Italian Cultural Heritage Ministry in the last three years has completely revolutionized the system of management and communication of national cultural heritage.

Among the most significant aspects of this revolution, undoubtedly, is the introduction of concepts, such as enjoyment, into the official language of the museum's mission. The concept of enjoyment, in fact, derives from the definition of the Museum elaborated by ICOM in 2007, but which goes back to 1961. The current shift in emphasis, however, introduces the possibility that a museum visit need not be for the purpose of study or research. The challenge for a new generation of museums, therefore, becomes that of educating and at the same time amusing, finding new ways of communicating through storytelling and emotional engagement. With these aims, the reform has included the Villa Giulia Museum among the first thirty museums in Italy to have special, scientific, managerial and administrative autonomy, which represents an important opportunity and challenge for the only museum with these characteristics entirely dedicated to the cultures of pre-Roman Central Italy.

Keywords: Etruscology, Villa Giulia, Faro Convention, Cultural Participation

Introduction

The reorganization of the Italian Cultural Heritage Ministry in the last three years has completely revolutionized the system of management and communication of national cultural heritage.

Among the most significant aspects of this revolution, undoubtedly, is the introduction of concepts, such as enjoyment, into the official language of the museum's mission. The concept of enjoyment, in fact, derives from the definition of the Museum elaborated by the International Council of Museums (ICOM) in 2007, but which goes back to 1961. The current shift in emphasis, however, introduces the possibility that a museum visit need not be for the purpose of study or research. The challenge for a new generation of museums, therefore, becomes that of educating and at the same time amusing, finding new ways of communicating through storytelling and emotional engagement. With these aims, the reform has included the Villa Giulia Museum among the first thirty museums in Italy to have special, scientific, managerial and administrative autonomy, which represents an important opportunity and challenge for the only museum with these characteristics entirely dedicated to the cultures of pre-Roman Central Italy (Figure 1).

Villa Giulia: an Etruscan museum between enjoyment and participation

The Villa Giulia Museum of Rome is so far the only museum in Italy to have included as part of its mission one of the objectives of the Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro, 27.X.2005).

Among the most significant aspects of this document are its revolutionary definitions and concepts, when it states, 'Cultural heritage is a group of resources inherited from the past that people identify, independent of ownership, as a reflection and expression of their constantly



Figure 1. Villa Giulia: view of the central courtyard towards the nymphaeum
(©MiBAC, Villa Giulia National Etruscan Museum. Ph. M. Benedetti).

evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment from the interaction between people and places through time.’ It further states, ‘A heritage community is comprised of people who value specific aspects of cultural heritage that they wish, within the framework of public action, to sustain and transmit to future generations.’

In fact, principles such as those mentioned above finally give People a strategic and active role in the perception, management and enhancement of cultural heritage, understood not only as a set of things but as an integrated system of material and immaterial values, in a dialectical relationship with the environment and also, for this reason, in constant transformation.

Building on these assumptions, I have tried, since the beginning of my mandate (May 2, 2017) to become an interpreter of these values, and to give centrality to people and build a ‘heritage community’ around a museum that is unanimously considered to best represent Etruscan civilization in the world (Figure 2).

This has not been an easy path, even if we have been encouraged by the administrative, scientific and management autonomy conferred on the Museum by the reforms that have affected the Ministry for cultural heritage and activities in the last years. The introduction, starting from July 2017, of a membership subscription has been one of the first acts to be carried out in this direction. It is an effective instrument for inducing citizens to return to the Museum and for building a community around it, while at the same time strengthening the role of the institution as vital, inclusive and able to promote the development of culture.

But it was necessary to go further and put in place initiatives capable of recovering and reinforcing the direct link between the Museum and its territory, which the reforms had begun to weaken, due to a sometimes restrictive interpretation of the division of authority between protection (which remains the duty of the Superintendence) and outreach and development (the so-called ‘valorization’, which rests with the autonomous museums and regional museum poles).

So it was that during the summer of 2017, the ambitious cycle of ‘Stories of People and Museums’ was born, with an invitation to all the historical and archaeological entities that have identified the



Figure 2. Villa Giulia: The re-enactment of the sarcophagus of the spouses in presence for the disability day of December 3, 2017 (ph. AGCult).

Museum of Villa Giulia as their natural reference point, starting from its foundation in 1889. This contributed to the increase of its collections well beyond the cultural boundaries of the Etruscan civilization, as we will see in more detail on the following pages.

This adhesion of the museums has exceeded expectations, and has given life to a cycle that has seen – almost uninterruptedly, from November 2017 to May 2018 – the alternating presentations in our Fortuna Hall, of 42 institutions, often represented not only by their scientific directors and conservators but also by the political or administrative officers (mayors or assessors) of the particular municipalities (Figure 3).

Among the aspects that have contributed to the success of the initiative, there is the will to give voice to the museums, not only from the perspective of their historical assets and/or as places of culture, but also from that of managers and administrators as well as users.

In the same direction traced a few years ago by Fiona Claire Reynolds, historical general manager – from 2001 to 2012 – of the National Trust for Places of Historic Interest or Natural Beauty:

‘The big difference was learning to love people as well as places: making the trust more family-friendly, more open and engaging, as opposed to being stuffy and formal, “don’t walk on the grass” and “don’t sit here”, which was the stereotype – and true. I loved it, absolutely loved it, though it was the hardest thing I’ve ever done.’

Our innovation is in accordance with the spirit expressed by Nobel Prize winner Orhan Pamuk in his now famous ‘Decalogue of a museum that tells daily stories’, introduced by the writer at the conference of International Council of Museums (ICOM) held in Milan in 2016. A museum is intended as a home and a place designed to give voice and expression to individuals, people and everyday stories. This was, therefore, the leitmotiv of the whole project, which thus has obtained, since its inception, the patronage of the Italian section of the ICOM, and was among the first events included in the programming of the European Year of Cultural Heritage (2018).

The list of the 42 museums involved is perhaps the most significant testimony to the success of an initiative with a deep symbolic value, whose steps can be fully retraced thanks to the videos of the



Figure 3. Villa Giulia: the presentation of the cycle ‘Stories of People and Museums’; from the left facing right: A. Campitelli, V. Nizzo, T. Maffei, A. Pinna (©MiBAC, Villa Giulia National Etruscan Museum. Ph.).

conferences uploaded on the Museum’s Youtube channel (@Etruschannel). A forthcoming volume, thanks to the support of the Dià Cultura Foundation, will contribute further to spreading all the everyday stories that will find hospitality in the Villa Giulia.

A 130 year long (at least) history

The Villa Giulia National Etruscan Museum was established in 1889 through the efforts of Italian archaeologist and politician, Felice Barnabei, and based on a systematic program of archaeological exploration and a carefully conceived museographic plan. This plan was designed to provide the city of Rome with a ‘national museum that would be one of the principle centers of historic and artistic culture’, structured with a section for ‘urban antiquity’ (today part of the Museo Nazionale Romano, ‘National Roman Museum’) and one for ‘extra-urban antiquity’, where all the artifacts discovered in the area of the Capital and lands once belonging to the Church, from Lazio to Umbria, were to be displayed. From the start, the latter material was housed in the villa built between 1550 and 1555 by Pope Julius III Ciocchi del Monte on his holdings near the Via Flaminia. The villa itself was the product of a collaboration between the great artists of the day: Jacopo Barozzi da Vignola, Bartolomeo Ammannati, Giorgio Vasari, Michelangelo Buonarroti, Taddeo Zuccari, Prospero Fontana, Pietro Venale da Imola. A residence built to indulge the caprice and aspirations of the Pontif, an admirer of antiquities and architect of an urban architectural program through which he sought to liken himself to the great Roman emperors, as is made clear by his choice of name (Julius, taken from the Julio-Claudian dynasty). The Pope further sought to make this connection with Imperial Rome through the installation of a scenographic nymphaeum in the villa, which drew water from the Aqua Virgo (an aqueduct built by Augustus), as well as the pictorial decoration of the villa’s hemicircular portico, which was inspired by the ‘grotesque’ imagery of the Domus Aurea,

and frescoed rooms of the first and second floors, among which stands out the extraordinary cycle of frescoes with representations of the Seven Hills of Rome, an eighth hills coinciding with the site of the Villa Giulia itself.

The project of Barnabei thus thought to reclaim one of the most fascinating places of the Italian Renaissance, which over time had fallen into decline, reconfigured at various points as a military hospital, veterinary school, and even carriage house. At the same time, Barnabei wanted to give his fledgling nation a museum entirely dedicated to the most ancient origins of Italian identity, which was possible through an exhibition focusing on the pre-Roman antiquities of peoples such as the Etruscans and their Italic neighbors (especially the Faliscans, Umbrians, Latins, and Sabines).

The first nucleus of the museum was constituted by materials coming from the territory of the Faliscans (from Falerii, modern-day Civita Castellana; Corchiano; Narce; etc.). Their territory, which laid between the Cimini Mountains and Tiber River, was the object of systematic topographic surveys and excavations in the preceding years. In addition to Faliscan antiquities, numerous objects were soon added to the museum's holdings from the habitation sites, sanctuaries, and necropoleis of Lazio south of the Tiber (including Gabii, Nemi, Alatri, Ardea, Tivoli, Lanuvio, Segni, Satricum, Palestrina), Umbria (including Terni, Nocera Umbra, Gualdo Tadino, Todi), and above all Etruria (Cerveteri, Veio, Bisenzio e Vulci), due in part to the creation in 1939 of the Superintendency of Antiquities for Southern Etruria with headquarters at the Villa Giulia Museum and jurisdiction over the southern part of the ancient Etruscan territory.

Such circumstances led to the dramatic augmentation of the collection's Etruscan character over the course of the twentieth century with the result that today the museum is without a doubt the most significant repository of Etruscan material culture. The first expansion of the building itself took place between 1912 and 1923 with the creation of two new symmetrical wings which flanked the original Renaissance structure. Later extensions were owed to the acquisition of important historic collections, such as the section of Etruscan and Italic materials from the Kircherian museum in the Collegio Romano, the exceptionally rich collection of antiquities and objects in gold assembled by multiple generations of the Castellani family, and the celebrated princely tomb assemblages of the Bernardini and Barberini tombs.

Between 1950 and 1970, the gradual increase in acquisitions made continual amplifications of the exposition spaces necessary. These were carried out under the leadership of superintendents Renato Bartocchini and Mario Moretti and based on the plans of architect Franco Minissi, who is principally responsible for the existing layout of the museum. At the same time and for the same reasons, through the initiative of Moretti and his successors, various local museums were established throughout the territory of Southern Etruria, which was previously unequipped with such entities (an exception is Tarquinia, which had exhibited its own collection since the second half of the nineteenth century and thus is the only large Etruscan city not to be fully represented in the Villa Giulia). These local museums were established through the direct transferal of materials from the collections and storerooms of the Villa Giulia Museum, which was consequently 'lightened' and reorganized, while maintaining a dialectic relationship and numerous contextual connections with that which was transferred to the new museums. As a result, in the span of a few years, the state museums of Cerveteri, Civitavecchia, Pyrgi, Tuscania, Viterbo, and Vulci, among others, were founded, as well as numerous other municipal museums, such as at Trevignano Romano, Farnese, Nepi, and Bolsena, which arose thanks to the advancement on conservation activities and research conducted in the territory.

The final acquisition of the museum was that Villa Poniatowski, which became state property in 1989 and today is the object of a complex restructuration and restoration project. Built as a dependance of Pope Julius III's villa, Villa Poniatowski owes its name to the grandson of the final king of Poland, Stanislaw Poniatowski, who, having moved to Rome towards the end of the

eighteenth century, chose this sixteenth-century building as his residence. Renovations of the villa were entrusted to Giuseppe Valadier, celebrated Neoclassical architect who took inspiration from the ancient world in redecorating some of the main rooms, such as the Egyptian and Indian rooms. With time the villa passed into other hands, including those of the Riganti family that built a tannery in the ancient 'garden of delights', thereby leading the area into a state of progressive decline with the subsequent imposition of houses, workshops, and artists' studios on the premises.

The restoration of the main core of the villa in the new millennium has allowed us to modify the original organization of the collections. Thus, the bulk of Etruscan, Faliscan, and part of the historic collections are now housed at the Villa Giulia, while the antiquities from Umbria and Latium Vetus are in Villa Poniatowski.

The design of the reinstallation, despite the fact that it was completed in relatively recent times, reflects a vision which is not always easily comprehended by the non-specialist visitor, especially the foreign visitor. It is a situation rendered all the more difficult by the reform of the education system that in 2003 brought about a significant modification of school curricula, reducing notably time devoted to the Etruscans and to the other pre-Roman civilizations of Italy.

The current layout of the galleries adheres to a rigorous topographic, chronological structure but does not provide an introductory section offering a general framing of Etruscan and Italic history, art, and daily life, which is essential for comprehending the importance of the collection and for resolving the numerous questions and presumed 'mysteries' (such as, for example, questions regarding Etruscan origins and language) that commonly form part of our collective imagination of Etruscan civilization.

The 'Temple Machine'

We must therefore go beyond this layout. We must restore the narrative dimension of the museum so as to reduce the distance between the museum and the general public, renewing the centrality and importance that such historic realities have for the comprehension and strength of Italian identity. This must be done without overlooking, however, the historic, architectural, and artistic dimensions of the two villas that make up the museum, dimensions which are almost completely ignored in the museum's current configuration, to the point that they seem like simple venues lacking identity and any sort of connection to the collections that they house.

With such objectives in mind, the Temple Machine project was born as part of a broader and more structured program of reinstallation to provide new spaces for enjoyment and to enhance the narrative component of the museum through the intelligent, measured application of new technologies.

The point of departure for the project and at the same time its source of inspiration is the one-to-one scale reconstruction of an Etrusco-Italic temple of the third/second century BCE, which was created under the direction of Barnabei between 1889 and 1890 in the gardens of the villa on the occasion of the museum's inauguration (Figure 4).

Created for didactic as well as scientific purposes and realized with amazing museographic foresight, the reconstruction of the temple was based on data obtained from an excavation carried out by Barnabei himself a few years earlier at Alatri, a small town of Lower Lazio famous for its walls in polygonal masonry.

Over the years, however, the temple lost its original functions and was transformed into a simple storeroom, inaccessible to the public.

Among the principle aims of the Temple Project is the total rehabilitation of the Temple of Alatri and the creation of an evocative, fully immersive multimedia exhibition inside the structure. This exhibition will serve to integrate the historical record offered by the Villa Giulia Museum and to reassert its connection with the territory through high-resolution video projections and features which will allow the visitor to enjoy a multisensory storytelling experience (involving sight, hearing, smell, and touch) as part of a series of virtual itineraries.

The aims of the project overlap in many respects with the official mission of the museum, which is to function as a point of attraction and reference for all the entities that it represents and that identify with it, as was recently demonstrated by a series of conferences in which over forty museums from Lazio, Umbria, and Tuscany took part, between November and May, having been invited to speak about their outreach efforts and to tell their stories at the Villa Giulia.



Figure 4. Villa Giulia: the reconstruction of the Etruscan Italic temple of Alatri built at the end of the 19th century by A. Cozza and at the center of the project 'The Temple Machine' (©MiBAC, Villa Giulia National Etruscan Museum. Ph. M. Benedetti).

In this way, the Villa Giulia will be able to not only integrate the story of its collections (perhaps extending that story to include the villa's more recent phases) but reestablish a direct relationship, albeit virtually, with the territories that its collections represent, as well as encourage visitors to learn more about the cultural resources of the territories through the creation of a real integrated territorial network.

A second project provides for the implementation of nocturnal projections on the surfaces of the villa's architecture, including the villa's extraordinary courtyard and nymphaeum. Again, the use of multimedia and virtual reality will be in the service of creating an immersive narrative intended to be evocative on the mode of similar successful projects, such as designed by Paco Lanciano and Piero Angelo in the imperial fora.

The third and final component of the project focuses on the renovation of the 'Neviera', a Renaissance-era nymphaeum excavated in a bank of tufo forming part of the hill to the southwest of the villa. The Neviera too has been partially transformed into a mundane storeroom but remains decorated with Renaissance-era stucco and painted decoration.

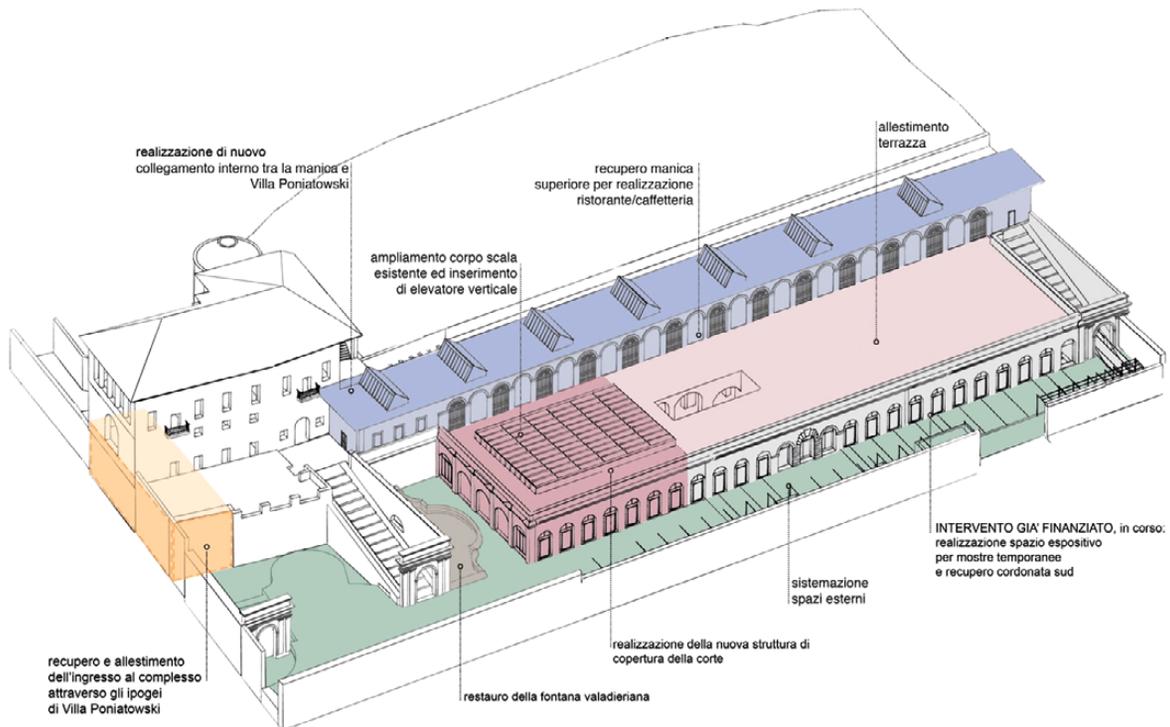


Figure 5. State of fact and reconstruction of the interventions falling on the Riganti's Tanneries of Villa Poniatowski (elaboration of the Prof. A. Grimaldi's team, Faculty of Architecture, 'Sapienza', Rome).

The terminal part of the Neviera on the basis of its structural characteristics, which resemble those of a tholos, in fact lends itself to the reconstruction of a funerary space, thanks also to the display of artifacts currently stored in the storerooms.

In this contribution, I have sought to give only a quick, non-exhaustive preview of the projects that we hope to carry out in the next years at the Villa Giulia, the realization of which has been a goal of mine since my appointment as director and has included a plan for locating the necessary funds. The Temple Machine constitutes only one part of our development plan, within which one also hopes to soon be able to proceed with the renovation of other spaces which for a long time have remained inaccessible:

- The 2000 square meters of the 'Riganti tannery', an industrial complex born in 1870 in the area of the gardens of Villa Poniatowski, a space ideal for temporary exhibitions and the realization of multifunctional spaces (bookshop, restaurant, conference rooms, etc.) (Figure 5).
- The room frescoed with zodiac imagery in front of the nymphaeum of the Villa Giulia, where a section of the Museum designed for recounting the various phases which preceded its establishment, from the Roman period to 1889, passing naturally through the Renaissance, will be installed.

All of the project proposals outlined above revolve or will need to revolve around certain key concepts, which are particularly significant for situations with a prevalent historical connotation, such as archaeological contexts. With these key concepts, I will end my contribution in a necessarily schematic format without occupying myself with further comments:

Participation and Engagement

To promote the active participation of the public in their visit through virtual and traditional aids that allow for interaction, discovery, and learning in the most engaging way.

Excitement and Fun

To employ equipment and exhibition solutions that enrich the visitor's experience on an emotional level, promoting the dynamics and mechanisms of 'experiential learning' with the aid of supports capable of creating a constructive sensory appeal (through sight, sound, smell, and memory) and to encourage cognitive processes and discovery through activities and engagement.

Historic Narrative

To avoid storytelling as an end in itself and to employ historical data critically and contextually as an instrument of narrative, avoiding technical language and maintaining an engaging discourse with the aid of rhetorical devices capable of holding the visitor's attention.

Immersive and Multisensory Experience (neural appeal)

To encourage a cognitive experience through a multisensory museum itinerary, avoiding above all the use of invasive and alienating observational instruments, such as goggles/glasses, in the belief that an experience of learning and discovery that is shared and collective (as, for example, in the cinema or theater) is more evocative and meaningful.

Spatial and Chronological Contextualization

To try to always contextualize in time and space the information imparted to the visitor, so that he/she is able to then construct a personal mental map into which he/she can insert 'egocentrically' new information as acquired incrementally.

Connecting the Dots: The Temporal and Spatial Map as Mnemonic Device for Relational Learning

On the basis of the principles outlined above, to promote cognitive mechanisms that are able to create links between the personal experiences of the user and the narrative offered by the display (relational learning).

Interactive Learning and 'Social' Projection of the Visitor's Experience

To allow the visitor to express instantaneously emotions, reactions, and the relational processes tested in the course of the visit to his/her circle of acquaintances via social media, offering to the user all the necessary tools (free WiFi connection, dedicated apps, the museum's social profiles) in order to promote such interactions.

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Education, dissemination and new technological approaches for a museum opened behind closed doors: the University Museum of Paleontology and Prehistory 'P. Leonardi'

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Abstract

The Museum of Paleontology and Prehistory 'P. Leonardi' was founded in the mid-60s by Professor Piero Leonardi, who aimed to create an exhibition dedicated to university teaching. Over the years, the continuous and growing demand led to a reconfiguration of the Museum for an open enjoyment to a wider and more diversified public. Unfortunately, in 2012 the Museum was damaged by the earthquake that struck the Emilia Romagna region; since then, the Museum cannot be visited while awaiting for the renovation work. Accessibility, involvement and identification are the elements necessary for the museum experience to be fully lived. Traditionally, access problems have been mainly associated with architectural barriers, while only recently the general attention was more carefully focused on immaterial types of barriers, such as sensorial and cognitive or cultural and technological ones. Thus, communication in the museum context is of primary attention, as far as it places the visitor at the core of the communicative process instead of the Museum exhibition, facilitating the visitor during a process of personal experiential growth. But what happens when the Museum is no longer available? Is it possible to get out of the physical limits of the Museum itself and to make the heritage available again? In order to respond to different fruition needs an integrated enhancement project has been developed, involving the digitization of the collections by new technologies; this attempt to create a virtual and dynamic environment has the dual purpose of allowing consultation to researchers and students and to set up virtual paths for non-academic users. Furthermore, the demand for educational workshops for schools of all levels was granted thanks to a Student Association comprised of several students enrolled in the Master's Degree, and which aim is to disseminate and communicate the contents of the Museum in the light of the latest scientific discoveries. Finally, the staging of temporary exhibitions allowed the heritage to be brought out of the Museum and to be available to the general public with the possibility of creating new thematic routes, which in future will implement the original path of the Museum itself.

Keywords: university museum, education, dissemination, new technologies, virtual reality, high resolution images

1. Introduction

According to the ICOM definition, 'A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and assets the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment'. Thus, a museum collects and preserves the heritage, and must guarantee for their conservation, promote the concerning research, and also has to educate and entertain an audience of visitors. Museums are places of learning and leisure, but above all of communication. The audience often does not perceived University Museums as a showcase for the University institution itself, but experienced as places of study and research avoiding any perception of their precious role, as they bond the educational and instructive values represented by both the Museum and the University (Ghiara and Gianoli 2011). In 1999, the former Ministry of University and Scientific and Technological Research (MURST) and the Conference of Italian University Rectors (CRUI) created a program aimed at the enhancement and enjoyment of the wide patrimony of documents and testimonies of the scientific and educational tradition of the Universities.

In this complex panorama of enhancement projects, Universities were asked to organize University Centers and Systems for the purpose of promoting scientific culture and researches aimed to preserve the heritage, to teach museum-related disciplines, scheduling temporary exhibitions or other cultural events and taking care of the conservation, the cure and the increase of the collections.

To this purpose, in 2006 the University of Ferrara established the Scientific and Naturalistic Museology Center, which became the Museum System in 2012. Aim of the Center was to enhance those initiatives concerning research and education which were intended as part of a strategy of development and integration of the University in the territory of Ferrara. The University Museum System is composed of the Paleontology and Prehistory Museum, the 'Giovanni Tumiatì' Anatomical Museum, the Botanical Garden and Herbarium, the Premiata Farmacia Bragliani-Navarra, the Historical Archive, the Instrumentaria Collection of Physical Sciences and other collections of historical interest located in the various Departments.

The 'Piero Leonardi' Paleontology and Prehistory Museum, dedicated to its founder, has been an important place for the University education since its foundation in 1964. Its wide audience exponentially grew through the years until 2012, when an earthquake struck the Emilia area and damaged Turchi di Bagno palace, which hosts the Museum.

Aim of this contribution is to analyze all the different strategies carried out to keep alive a 'temporary closed' museum, which is not accessible to the audience since 2012.

1.1. *The Museum*

The Paleontology and Prehistory University Museum is located at palace Turchi di Bagno (Ferrara, northern Italy) (Figure 1). The building is part of the Quadrivio degli Angeli, designed by the architect Biagio Rossetti in 1492; its collocation among the Erculean Addition was decided by Ercole I d'Este. After the restoration at the end of the Second World War, the palace became the seat of the Botanic Garden and subsequently of the Geology and Mineralogy Institute of the University of Ferrara. Nowadays, beside the museums, the building hosts several sections of the Humanities, Biomedical and Surgical Specialties Sciences and Life Sciences and Biotechnology Departments, the University Institute of Higher Studies and the Prevention Center.

The Museum of the Department of Earth Sciences of the University of Ferrara (now called the 'P. Leonardi' Paleontology and Prehistory University Museum) was created in 1964 by the geologist,



Figure 1. Location of the ‘P. Leonardi’ Paleontology and Prehistory Museum in Italy (A) and in Ferrara (B). View of the Quadrivio degli Angeli and location of Palace Turchi di Bagno (C). Palace Turchi di Bagno (D). Vertebrate Paleontology (E) and Prehistory (F) rooms.

paleontologist and naturalist Professor Piero Leonardi, who founded the Museum 15 years after moving from the University of Padova to the Ferrara University in order to occupy the first Geology chair in 1949. Keen of museology, Prof. Leonardi noticed how the geological and paleontological assets could be seen as indispensable tools to be implied in the Earth Sciences and Paleontology education.

Thus, the target of the first exposition was the University education, although by the end of the ‘70s the increased interest in naturalistic disciplines in compulsory education led to a continuous and growing request from a non-university audience. The organization of guided tours for elementary and middle schools annually involved thousands of students, while at the same time an updating of the whole exposition program began, in order for the finds to be more intelligible. Educational activities continued during the ‘80s until 2012, also through the organization of refresher trainings and educational experimental activities addressed

to compulsory education teachers in collaboration with the Board of Education, the Natural History Civic Museum and the Public Education, the Culture and the Tourist Departments of the Municipality of Ferrara.

The museum hosts four different sections: Vertebrate Paleontology, Prehistory, Invertebrate Paleontology, and Historical Geology. Each section comprehends an expository and a conservative sections.

At first, these sections were hosted in two wide rooms at the first floor and two other large spaces at the second floor of palace Turchi di Bagno, covering a total area of 440 mq. The need for educational spaces such as classrooms and laboratories due to the increased number of University students and teachers led to a reduction of the Museum spaces; the Prehistory room became a classroom as well, while sections located at the first floor (Invertebrate Paleontology and Historical Geology) were moved in two small rooms located at the second floor. This relocation negatively affected the availability of these two sections.

1.1.1. The Vertebrates Paleontology section

The Vertebrates Paleontology section is composed of ten showcases, five of them displayed along the walls and the other five in the central area of the room.

The first showcase holds several fish, amphibian and reptile fossils (both casts and original findings); these assets are sorted following the systematic criteria and illustrate the evolutionary history of the Vertebrate subphylum. A group of fish fossils from the 'Pesciaia' area in Bolca are considered to be of particular concern; this famous Tertiary deposit located in the Lessini mountains (Verona, Northern Italy) is known from the XVIIIth Century for its extraordinary abundance of fish fossils.

Skull, mandible and cervical vertebrae belonging to a large sea crocodile are visible on two large wall-mounted marble slabs (red ammonitic marble, Jurassic, Veneto). Once determined as *Metriorhynchus* sp. (Leonardi 1956), the fossil has been recently re-examined and classified as a member of a new species, *Neptunidraco ammoniticus* (Cau and Fanti 2011), which lived in the Tethide Ocean during the Middle Jurassic Era, about 100 Million years before the dinosaur extinction; thanks to its numerous teeth, measuring over 5 cm each, this large reptile probably fed on shellfish, ammonites, fishes and small sea reptiles.

The second wall showcase shows the reptile-mammals and reptile-birds evolutionary steps. Extremely important are the two original *Lystrosaurus* skulls from the South African Lower Triassic Era, which might be the only specimens in Italy (Posenato and Broglio 2011).

In the third showcase several osteological findings are exposed, both casts and original specimens. These findings belong to four different mammal orders, Carnivores, Proboscidea, Perissodactyla and Artiodactyla. Among the Carnivores group there is a fossil *Smilodon californicus* skull, coming from the well-known Californian Quaternary deposit of Rancho la Brea. Among the Proboscidea group the skeleton of an *Elephas falconeri*, also known as the dwarf elephant from Sicily (southern Italy) are very important specimen.

The Perissodactyla group is particularly interesting because of two *Brontotherium* skulls from the North-American Oligocene, which are currently the only specimens in Italy. The section ends with three small wall showcases exhibiting the evolutionary history of the Equidae and the Rhinocerotidae families; especially, this last showcase displays the original skull of a *Trigonas*, a primitive rhino from the north-American Oligocene, and of *Coelodonta antiquitatis* from the Siberian Pleistocene.

1.1.2. The Invertebrate Paleontology and Geology section

The section is composed of six showcases holding fossils, casts and pictures related to the Invertebrate subphylum from Protozoa to Echinoderms and disposed according to the taxonomic system, and illustrates morphology, evolution and paleoecology of the most common fossil groups. This section had a main role in the University education, above all as a support to paleontological disciplines. Several findings were collected by the Geology Department research groups during expeditions on the Venetian Dolomites.

The evolution of life on earth and the main geological events happened in the southern Alps area are displayed in six showcases by stratigraphic columns, index fossils, stone specimens, and environmental and paleogeographic reconstructions.

1.1.3. The Paleoanthropology and Prehistory section

The room displays the biological, behavioral and cultural evolution of humankind from its birth to the beginning of historical eras; the exposition is set in chronological order and follows the steps of the human evolution and the hominization process. The exhibition then shows the diffusion of humankind in the various African, Asian and European areas, by associating several skull casts to the corresponding lithic artifacts.

The showcase dedicated to the first Modern Humans sequentially displays findings testifying the human presence in Africa and in the Near East at about 100 ky (Skhul site) and Neanderthal findings. Casts of the most significant findings about the latter are displayed (Neanderthal, La Chapelle, La Ferrassie and Circeo sites) and specimens of Mousterian lithic industries.

Findings representing Upper Paleolithic technologies and other cultural aspects are shown in the showcase dedicated to the rise of Modern Humans in Europe. Next to lithic and bone artefacts, several pictures are exposed, showing graphic reconstructions of settlements, ornaments and decorated items, burials and artistic production. Following, on display we find pictures representing the last European hunter-gatherers and evidences of the rise of agricultural and pastoral activity in the Near East and their diffusion in Europe. A view of the European Neolithic pottery is then shown, sorted by chronological and geographical order (Middle Europe, Po Valley, Italian peninsula).

The last showcases are dedicated to the Eneolithic, the Bronze and the Iron Age and exhibit pottery, metal artefacts and characteristic artwork.

2. Enhancement activities

2.1. Education

The temporary closure of the Museum led us to question us about what could be the best strategy for continuing the activities of education, dissemination and fruition of the collections. Our first step was to focus on communication using the mail tool for a remote fruition, websites. In 2012, after the creation of the University Museum System, a restyling of the website began, after with the Ferrara University website restyling. The new website was selectedly developed and has a dual function in well-characterized areas. On one hand, it provides a 'static' information about the history of the Museum and its organization, collections, initiatives, such as temporary exhibitions, conferences and publications; on the other hand it allows a 'dynamic' communication, proposing in a special section an in-depth analysis of some of the assets, providing the most extensive documentation, including photographic and iconographic. In order to enlarge the website catchment area, social media accounts were also activated (Facebook, Instagram, Twitter and Google+).

An important opportunity to restart activities of education, dissemination and fruition occurred in 2012, when the Leonardi Museum joined the first Italian University Museum network; this was possible thanks to a project funded according to law 6/2000 relating to the diffusion of scientific culture between twelve different universities coordinated by Modena and Reggio Emilia (Corradini 2017). The project was titled 'Computer technology and the new reality for knowledge, networking and promotion of cultural scientific heritage: the role of the network of university museums' (website 1) and involved computer technologies for the enhancement of heritages conserved in University museums. Over 28.000 museum heritages were catalogued thanks to the Catalogue Informative System on web-SIGECweb. Findings were contextualized both by historical and territorial perspective, so that four thematic routes were created (Environments, Landscapes, History of Scientific Instrumentation and Histories) (Corradini, 2017). The aim of the project was to address the interest of students towards the scientific method by using assets from Museum collections, by promoting through Museum routes an integration between territory and scientific culture, which is still suffering in our Country.

Thanks to this project, it was possible to catalogue 2000 findings stored in the 'P. Leonardi' Paleontology and Prehistory Museum, and to create three routes dedicated to three different fields: Histories, Landscapes and Environments. The first one is dedicated to Prof. Leonardi, founder of the Museum; the second is related to the osteological collections from Grotta del Broion (Vicenza, northern Italy); the third one is referred to the paleontological findings from the Late Glacial fossil deposit of Settepolesini di Bondeno (Ferrara, Northern Italy). Museum paths so far created were a stimulus to study the exposed findings and to give visibility also to those collections which are still not exposed.

In 2014, Leonardi Museum joined a new project in collaboration with the Italian University Museum network. The project highlighted the importance of University Museums and reconsidered their role in orientation towards the scientific culture. Aim of the project was to promote scientific culture in upper secondary school, also through a better use of scientific workshops and multimedia tools; thus, students were involved through initiatives useful to foster communication with the worlds of research and scientific production, increasing a widespread awareness of the importance of science and technology in everyday life and for the sustainable development of society (Corradini and Endrighi 2019). In order to integrate and innovate standard formal education techniques, 56 educational pathways of formal and non-formal education were organized; taking also into account the National Plan for Education in Cultural Heritage of the Ministry of Cultural Heritage and Activities and Tourism, these educational paths make use of computer technology to better stimulate and accompany students' active learning processes. Educational pathways are dedicated to three thematic macroareas: biodiversity and agrobiodiversity (9 paths), color (20 paths) and time (27 paths). Educational pathways are characterized by the use of real objects, findings or tools in several educational activities, on which scientific observational experiences are built, beside other cultural practices involving readings and insights allowing the application of the experimental method. Two different pathways have been realized, one dedicated to the role of color in art, the other one concerning human evolution. The first educational pathway focused on the communication of the evolution of art during Prehistory through the exhibition of findings and recent scientific discoveries, by studying raw materials and applying original prehistoric techniques. Aim of the second pathway is to give students an awareness of the fundamental role of evolution in the transformation of living organism to adapt themselves to environments and available resources, by observing human and zoological osteological specimens from the Museum collections. Activities show how the relationship between animals and Humans changed through time, leading humankind in partially replacing natural evolutionary processes with the domestication process.

Surely these pathways increased the interest of young students in scientific culture, although they left an important question open; not only University museums, but also scientific Museums

generally should ponder how to improve approaches towards students of the last two High School grades in order to increase their interest in scientific studies.

2.2. Dissemination

Starting from 2016, educational and dissemination activities addressed to elementary school and extra-scholastic audience have been restarted, thanks to the collaboration of 'PreHistorica' Student Association. The association is mainly composed of 'Quaternary, Prehistory and Archaeology' Masters students, PhD students and research fellows of the University of Ferrara, and was founded in 2016 with the dual aim of approach and extra-scholastic audience to Prehistory (usually, summarily treated in scholastic Italian programs) and promoting the collections of the 'P. Leonardi' Paleontology and Prehistory Museum.

The first concrete goals of the cooperation between the Association and the Museum was to provide an engaging and creative teaching experience through experimental archaeology, educational activities for elementary schools and orientation activities for secondary schools and Bachelor's degrees students. Educational workshops designed by the Association focused on several themes concerning Prehistory, such as Human Evolution, Paleontology, Vertebrates evolution, Prehistoric art and technology and Archaeological excavation (Figure 2). Target of the activities were children aged between 6 and 11 years; workshops were designed so as to combine educational communication with the more suitable storytelling techniques. Communication techniques were adapted depending on the audience, although a high scientific level of contents was always maintained. This choice led to an excellent level of learning by participants despite the complexity of the covered topics. Workshops were always structured with a frontal theoretical and multimedia lesson and two or three game activities; this structure provided a high learning level avoiding any kind of passive approach through a multisensorial experience where touch, vision and other factors involved in the learning process and game activities were successfully combined. The most successful workshops were those dedicated to Vertebrate and Human Evolution; using osteological casts from the Museum's educational collection, the main differences between the various species of hominins and those between herbivores (artiodactyla and perissodactyla), carnivores and rodents were explained. At the end of the activities, teachers and students were asked to fill out a brief questionnaire, in order to obtain a feedback regarding the effectiveness of the workshop



Figure 2. Pictures from educational and dissemination workshops concerning Paleontology, Anthropology and Prehistoric Archaeology.

itself. It was possible to ascertain how apparently complex themes such as human or vertebrate evolution, are actually well received by elementary school audiences, when methodically and scientifically approached, as well as with a high degree of creativity and participation.

2.3. Cataloguing and ICT new technologies

During the cataloguing of the Leonardi Museum's assets, we began testing the use of 3D photogrammetry and high-resolution images (GIGAPIXEL) for the digitization of artifacts. We specifically focused on the development of the latter for the fossils preserved at the Museum, since this technique allows to highly enhance details of even very small objects. 'Gigapixel' images are composite shots that can be enlarged several times to examine each part of the object. The process of creating a gigapixel image is quite simple: it is necessary to take several photos of the object that sharing at least 60% of their surface; images are then merged in a single image with high resolution details using specific softwares (Figure 3A). This technique is mainly used by landscape photographers, but its application in the field of cultural heritage makes possible to obtain a double result: on the one hand, it allows the user to view the object in detail and, on the other, to obtain a digital archive accessible to researchers and scholars who can remotely analyze the object in detail. Digitization was started by considering the first showcase placed before the Vertebrate room as it is particularly rich in fish, amphibians and reptile fossils on flat supports. Four fossils were chosen: two fishes, an amphibian and a reptile. The two selected fishes are Rhacolepis Agassiz 1841 and Leptolepis Agassiz, 1843, the amphibian is Pelosaurus laticeps Credner, 1882 and the reptile is Ichtyosauria De Blainville, 1835. The chosen ones are all fossils placed in slabs, allowing a more shooting accuracy; also, photographs would have completely immortalized the entire fossil, which thing could not be possible with a three-dimensional finding. To create a Gigapixel photo of a finding a Canon Eos 600D professional camera with a macro lens was used, along with a stand and a green cloth necessary to give the background of the photo a very high color contrast. More than 20 photographs for each finding were shot and uploaded to Adobe Photoshop®; through the Photomerge function a very high-resolution composite photograph has been developed (Figure 3A). The software re-elaborates the photographs and creates an image composed of different levels that can later be merged into one. The last level will be elaborated in order to cut out the background from the fossil and insert a white, black or transparent one (depending by user's choice) and adjusting any brightness errors or due to the fusion process. The final image can be saved in different formats; it was decided to save results in three formats, JPG, TIFF and PNG, since they are the most common and simple formats for all purposes. JPG format provides the lowest quality, but also the lightest one; consequently, its loading on the web is faster. Differently, TIFF and PNG files are heavier, but with a higher resolution and quality (the best files for this case, ie high resolution). After saving the image, it was necessary to load it on www.easyzoom.com to make it accessible to the public audience. The four Gigapixel images and other pictures of the finds from the first showcase of the Museum have been uploaded on the web application cospaces.io where the museum of Paleontology and Prehistory was virtually recreated (Figure 3B). Cospaces is a recently born application with a great potential, mainly used in the scholastic context; it is essentially a 3D graphic editor supported by any browser where the user can create a simple graphic content thanks to a vast library of backgrounds, objects and characters. The editor supports the loading of sounds, personal images, videos, 3D models, animations, characters and offers several objects and backgrounds to use and customize. In addition to the editor, a console to be programmed in CoBlock or Javascript is present, in order to access to more advanced features (for example, to create interactive objects with links that refer, as in our case, to films or photos in gigapixel). CoBlock is a very easy to use visual programming environment that allows even the most uninformed user to take the first steps in the world of programming. The content can be displayed through cardboard viewers suitable for Smartphone, Gear VR, Google Daydream or simply via PC and Applications specially designed for iOS and Android phones and tablets.

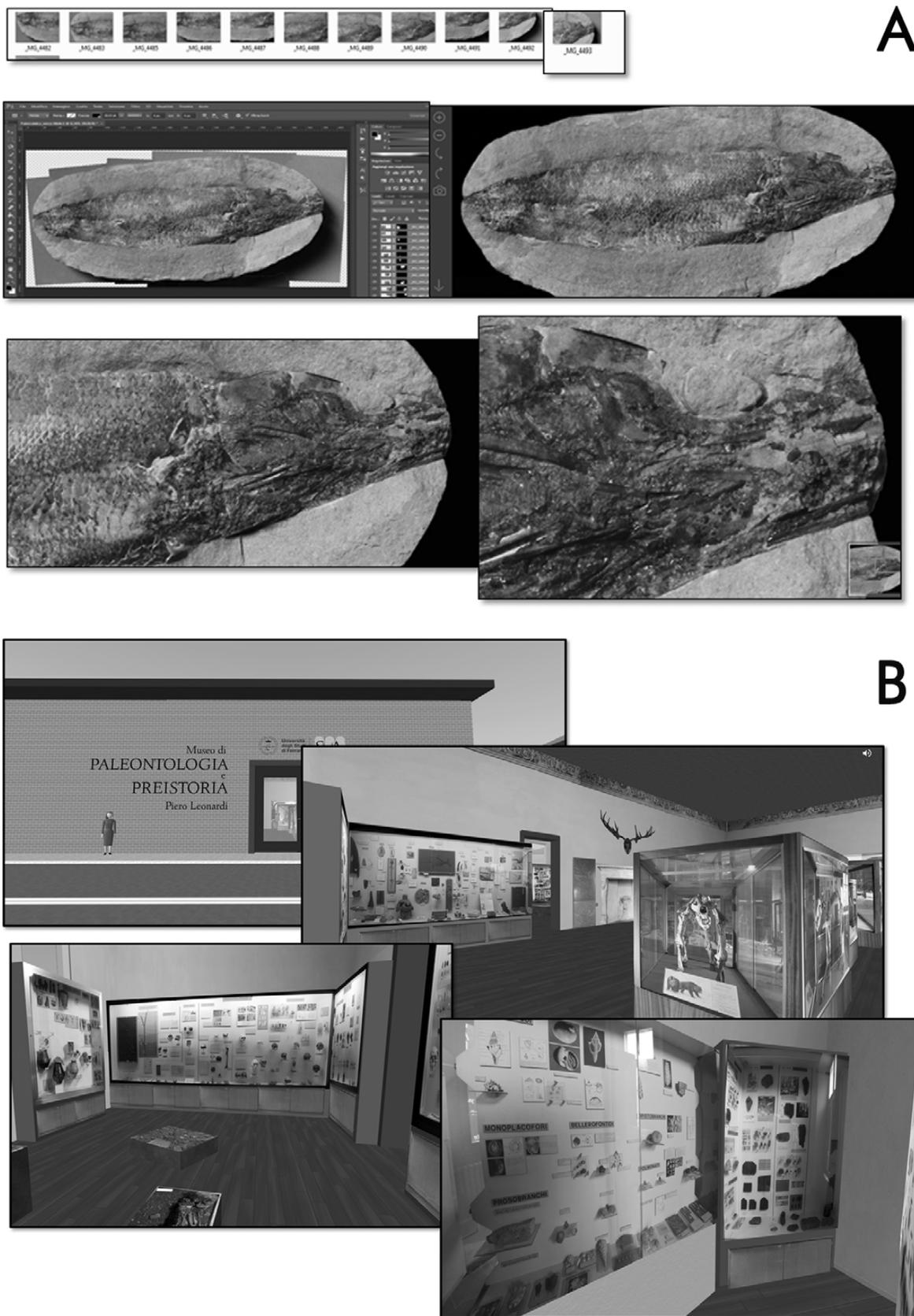


Figure 3. Elaboration of a Gigapixel image and final result (A). Pictures from the virtual tour of the 'P. Leonardi' Paleontology and Prehistory Museum realized via cospaces (B).

3. Discussion and perspectives

The numerous activities launched since 2012 had the dual purpose of opening the doors of a closed museum and undertaking new itineraries useful for a future reopening. Collaborations and projects have been of fundamental importance to guarantee the fruition of the Museum's collections and the partial restarting of educational and dissemination activities.

An extremely interesting topic and which future developments could be very useful for the dejection of the physical barriers of the Museum (until it won't be re-opened) is the digitalization of the collections contents, particularly if accompanied by high-resolution images and three-dimensional models. Museums are proving to be among the most interesting fields to implement digitization, virtual and augmented reality solutions. The continuous development of digital acquisition technologies and three-dimensional modeling is opening up new perspectives of application in the cultural sphere in recent years. Specifically, in the context of cultural heritage and museums, the production of high-resolution images (Marzi *et al.* 2016) and three-dimensional digital models (Russo *et al.* 2011) has become an indispensable practice for the integration of traditional systems of documentation, conservation and analysis of artifacts or findings (Remondino and Campana 2014). The broad accessibility to digital devices and the more and more frequent diffusion of low cost digitalization methodologies and applications giving the possibility to develop virtual tours and contents in augmented reality is surely another of the most interesting aspects that facilitated the diffusion of new technologies in the field of cultural heritage. The aim of setting up and testing an immersive reality experience to promote the museum through new information technologies is increasingly proving to be an interesting challenge that can provide better, faster and more democratic access by potentially interconnecting collections in real time to users all over the world and allowing museums to open up as never before to an ever-wider audience.

This work mainly produced two results:

- Gigapixel photographs provides a very detailed view of the museum assets. They allow to focus attention on details of a fossil, with the advantage of making details more visible, therefore allowing users to better interpret the characteristics of the find. This removes physical barriers (showcases) that normally distance the visitor from the details of the displayed object. Furthermore, the acquired pictures can be considered an alternative (digital) form of preservation of the finds. In the event of a possible restoration, photographs could be useful as a reference point.
- An immersive virtual reality allowing users to visit the museum through alternative routes; this is useful since it makes up for the impossibility of physically visiting the museum. Furthermore, the environment provides a different interaction compared to the classical museum visit. The layout of the objects and virtual captions could be useful to reorganize the layout of the museum showcases for its future reopening.

In the perspective of a future reopening of the museum, these results will be useful as a virtual counterpart to the physical visit itinerary, for example by signaling the access to alternative routes through QR codes; placing them in captions, visitors can access multimedia content via smartphone or tablet. Gigapixel pictures provide a very detailed visualization of the museum assets and allow to focus attention on the details of fossils. The Virtual Museum and the Gigapixel photographs can be considered an added value of the Museum itself; this will be also true when the museum will be reopened (Bertolini *et al.* 2017). In this way, the museum will boast a form of innovation that is still in an experimental phase but that in the future will become full part of cultural heritage. Future developments will focus on creating interactive three-dimensional models of the finds, thus creating a more engaging interaction for the visitor.

The experience with the Cospaces has therefore proved to be positive despite being in progress. Nevertheless, it could be a costless valid alternative for virtual exhibitions.

Author contributions

U.T.H. coordinated and designed the project, A.C.C. and C.C.C. managed and implemented the web-site; M.B., G.Po. and G.Pr. elaborated the Virtual Tour of the Museum Leonardi; A.P., A.T., C.M. and M.B. carried out the laboratory for Prehistorica; A.S., F.S. and M.B. elaborated the Giga pixel images; M.B., A.P. and U.T.H. wrote and edited the manuscript.

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Siti web

Rete dei Musei Universitari – Progetti : www.pomui.unimore.it

La carte de visite. Impact formel, contrainte méthodologique et choix impopulaires pour l'Aire mégalithique du Parc archéologique et Musée de Saint-Martin-de-Corléans à Aosta (Italie) : un cas d'étude

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Abstract

The Archaeological Park and Museum of Saint-Martin-de-Corléans, open to the public on June 24, 2016, is an essential business card for archaeology in Valle d'Aosta Region (Northern Italy).

It is considered a place that, by its vastness, emotional impact and awfulness, has no equal in Europe. It comprehends and protects a prehistoric area of cult and burial, of which the first finds were discovered in 1969, under the direction of the archaeologists of the Regional Authority, Franco Mezzena and Rosanna Mollo.

The peculiarity of integrating, into a single building, the archaeological site and the museum allows the visitor, along a path from the level of vestiges to the upper floor, an uninterrupted and direct view of the excavation area, which is explained in the didactics panels. The museological and museographic language communicates in a simple and clear way the continuous dialogue between the monuments, kept in situ, and the exhibition path. Illumination is also a reading code, an instructive experience which, through the dynamism of light, emphasizes and gives life to the structures.

The museum itinerary is divided into six sections, distinct by the background colours of the walls, while the archaeological site presents a very precise moment of the excavation – its conclusion. For the correct reading of the found remains, at different levels of narrative and topography, on the site replicas are repositioned, declared so since the beginning of the visit, while the originals are exhibited in the museum: the stele, (found with the decorated face to the ground, so impossible to be seen) are here exalted in their artistic aspect, as elements of the great anthropomorphic statuary. As summary of the media representation and of the scientific rigor of the cultural message, reproductions have allowed innovative museum solutions, as a tool that communicates didactic and non-verbal content, for the inclusion of visitors with physical and mental disabilities.

The exterior appearance and the architectural and urban impact of site coverage have created strong reactions in the community, starting by neighbourhood residents. The difficulty lies in the communication of the complex: special moments of welcome and visits are not enough to create a critical review of the work, new forms of information need to be identified. The use of media has so far been weak and discontinuous; starting with the goal of making the site inviting through clarity and accessibility, even with the involvement of important testimonials, an adequate form of recall has not yet been created.

Keywords: archaeological park, museum, Valle d'Aosta, Italy, anthropomorphic statuary

Introduction

L'Aire mégalithique du Parc archéologique et Musée de Saint-Martin-de-Corléans est ouverte au public du 24 juin 2016. Le site / musée veut être considéré comme une essentielle carte de visite de

la Région, qui lui donne une identité, le définit spatialement / territorialement et le caractérise et le représente sous une forme positive et élevée (dans ce cas le décrivant comme une excellence de l'archéologie de la Vallée d'Aoste).

Considéré comme un lieu qui n'a pas d'égal en Europe, par son ampleur, son impact émotionnel et sa qualité esthétique, l'édifice comprend et protège une aire préhistorique cérémonielle – cultuelle et funéraire.

Historique des recherches

Lors d'excavations dans un terrain destiné au bâtiment de trois immeubles d'habitation, à l'est de l'église du quartier Saint-Martin-de-Corléans, sous la direction des archéologues de la Surintendance régionale, Franco Mezzena et Rosanna Mollo, le 10 juin 1969 furent mis au jour les premiers vestiges.

La date est curieusement évocatrice : la même année, le 20 juillet voit le premier alunissage d'un être humain. Deux événements inscrits dans l'histoire de l'homme : l'un projeté dans l'avenir, l'autre visant la connaissance du passé.

Les recherches du site débutent dans une aire d'environ 7000 m² (depuis 1974, la zone adjacente de 3500 m² a été acquise), qui a été reconnue et promptement notifiée par l'État comme présentant un intérêt particulier. Les travaux de construction des immeubles ont été interrompus et remplacés par l'enquête archéologique systématique, qui a duré jusqu'au début des années 1990, conduite par l'archéologue Franco Mezzena.

Peu à peu mis au jour, le site s'avère rapidement l'un des plus intéressants d'Europe.

Mezzena reconnaît 8 phases structurelles qui se succèdent chronologiquement : site de longue durée, les vestiges éclairent six millénaires d'histoire, de la fin du Néolithique à l'époque



Figure 1. Saint-Martin-de-Corléans. Aire archéologique (cliché Pietro Fioravanti).

contemporaine. Les 5 phases préhistoriques qui ont été identifiées partent du Néolithique récent et traversent l'Âge du cuivre pour arriver à l'Âge du bronze (Figure 1).

L'expression 'site mégalithique' a été utilisée pour définir de manière synthétique les découvertes faites à Aoste, dont il n'existe aujourd'hui aucun équivalent, sauf peut-être le site de Petit-Chasseur à Sion (Suisse).

Nous ne sommes pas là en présence d'un simple alignement de menhirs ou de stèles anthropomorphes, ni même d'une nécropole ou de plusieurs tombes dolméniques individuelles : les vestiges retrouvés démontrent qu'existait là une aire sacrée, destinée dès son origine à accueillir régulièrement des manifestations liées à un culte et aux sépultures.

Les phases structurelles

La base procédurale et fonctionnelle suivie dans la conception muséologique du site, qui se reflète pleinement dans la réalisation muséographique, est la division en phases structurelles.

Les premières traces remontent à un labourage cultuel qui avait probablement un sens propitiatoire (fin du Ve millénaire a.C.). On a retrouvé les empreintes soit des animaux soit des profonds sillons de la charrue (Figure 2).

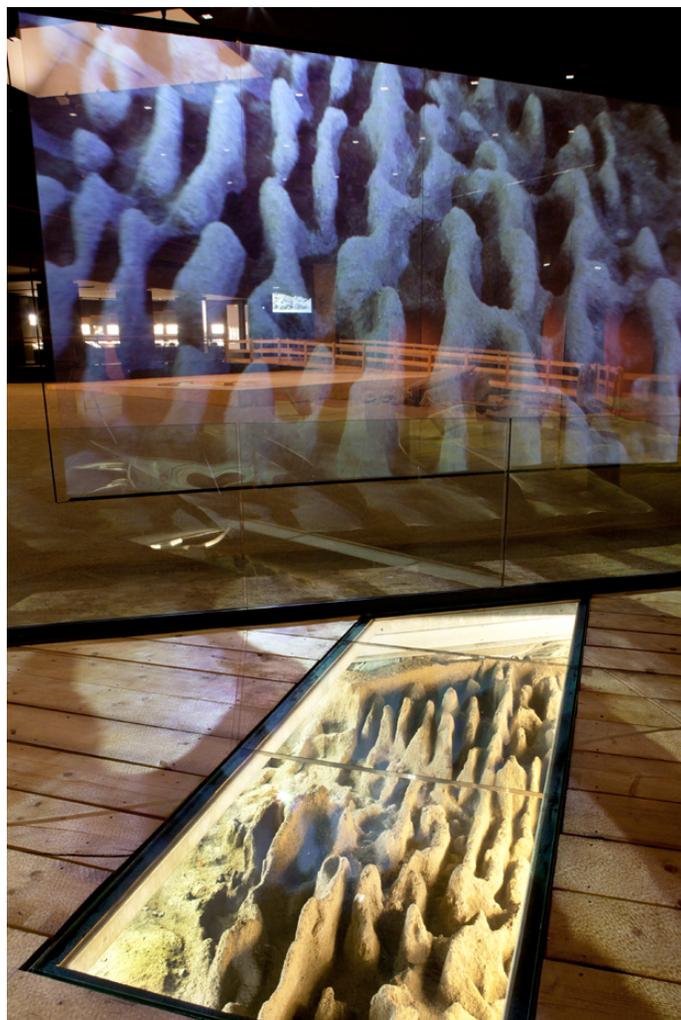


Figure 2. Saint-Martin-de-Corléans. Traces de labour (cliché Pietro Fioravanti).

Le labourage cultuel fut suivi par la réalisation de puits organisés et orientés NE-SW (datés par le radiocarbone de 4300/3950 av. J.C.) et dans lesquels furent retrouvés des meules à céréales et des meulettes interprétées comme offrandes, avec des restes de fruits et céréales (Figure 3).

C'est à une période successive (début du IIIe millénaire av. J.-C.) que remonte l'alignement d'au moins 24 poteaux totémiques en bois (mélèze), orientés selon un axe nord-est/sud-ouest et dressés progressivement l'un près de l'autre, ensuite vraisemblablement associés ou remplacés par plus d'une quarantaine d'imposantes stèles anthropomorphes (Figure 4).

Ces stèles anthropomorphes sont unanimement reconnues comme autant de chefs d'œuvre magistraux de la statuaire préhistorique, première véritable manifestation du mégalithisme dans la région (Figure 5).

Figure 3. Saint-Martin-de-Corléans. Puits
(cliché Diego Cesare).

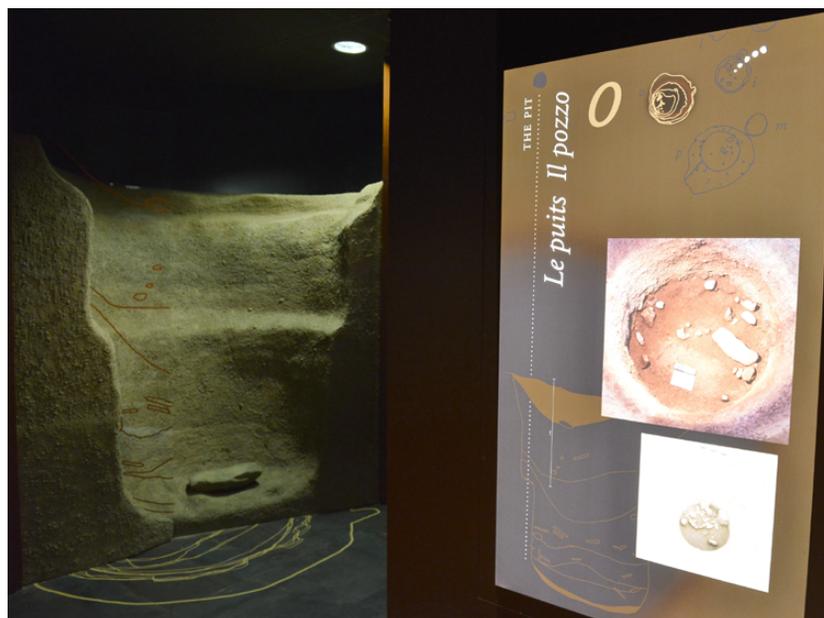


Figure 4. Saint-Martin-de-Corléans. Trous de poteaux (cliché Diego Cesare).



Figure 5. Saint-Martin-de-Corléans. Stèles (cliché Diego Cesare).



Figure 6. Saint-Martin-de-Corléans. Dolmen (cliché Pietro Fioravanti).

Ce site, qui se présentait à l'origine comme un sanctuaire à ciel ouvert destiné au culte des vivants, ne revêt une fonction funéraire que vers la moitié du III^e millénaire av. J.-C., devenant alors une nécropole privilégiée, avec des tombes mégalithiques monumentales de différents types.

Les premières tombes mégalithiques, construites entièrement hors terre, furent probablement destinées aux membres des familles les plus importantes de la communauté.

Le grand protagoniste est ici le dolmen (ou "Tombe 2"), érigé sur une plateforme triangulaire en pierres et qui servit de sépulture collective : l'on y a en effet découvert les restes de 39 personnes (Figure 6).

La visite du parc archéologique et du musée

L'Aire mégalithique – parc archéologique et musée – est une vaste construction architecturale, comprenant la grande structure principale, septentrionale ('zone nord') et la structure secondaire, plus petite, méridionale ('zone sud'). Les deux zones sont divisées par la rue Saint-Martin-de-Corléans. Le site appartient à l'administration régionale ; sa gestion est réalisée avec différentes compétences.

Actuellement, l'ouverture est sectorielle et ne concerne qu'une partie de la 'zone nord'. Toutes les autres zones sont fermées en tant que chantier de construction. Le grand espace ouvert, créé sur le toit de couverture de la structure, n'est présentement pas disponible et son accès est interdit.

L'entrée principale est actuellement située à l'ouest, devant l'abside de l'ancienne église de Saint-Martin-de-Corléans ; ont été complétés et ouverts pour utilisation du public (en plus de la zone d'entrée et guichet), la grande zone archéologique de la préhistoire et l'espace muséal adjacent, situé au sous-sol (-3,80 m) ; l'espace face au-dessus de la zone archéologique (à 0). L'afflux de public est limité à la présence de 200 personnes en même temps.

Le parcours du musée mène donc au sous-sol (altitude -3,80 m), auquel on accède par la 'rampe du temps' – un chemin/passarelle dont les pentes sont compatibles avec le transit des personnes handicapées – et par l'ascenseur. À cet étage, il y a la grande zone archéologique préhistorique, environ 2500 mètres carrés, le sentier archéologique, environ 600 mètres linéaires, l'espace musée d'environ 1150 mètres carrés, le compartiment technique principal des plantes, plusieurs salles de service.

Dans la présentation de l'aire, est privilégiée la phase mégalithique la plus conservée, restituée par les fouilles, les tombes réutilisant les stèles abattues.

La visite se déroule dans une direction préétablie et à sens unique. L'itinéraire du musée est conçu selon un critère chronologique dominant et des critères thématiques archéologiques.

La séquence est ainsi composée :

De l'entrée – guichet on marche vers la Rampe du temps : le parcours commence par une plongée en arrière dans le temps, qui part d'aujourd'hui et remonte à la préhistoire : des panneaux d'information forment un itinéraire, semé d'images illustrant l'histoire humaine, qui amène le visiteur jusqu'au niveau du site archéologique proprement dit, environ 6 mètres au-dessous du niveau de la route. (Accès à -3,80 m) ; le long de la rampe le public est accompagné par des effigies de personnages ou de lieux fameux, avec une date écrite pour rappeler le moment historique.

Les passerelles parcourues par les visiteurs, au commencement d'une largeur réduite, s'élargissent quand elles débouchent sur le niveau inférieur, qui offre au regard un espace étonnant.

Parcours le long de la zone archéologique: une immense salle protège le palimpseste des vestiges, visible à partir des sillons du labourage, de l'alignement des fosses d'implantation des stèles et des poteaux, de l'imposant grand Dolmen et des autres tombeaux ; des panneaux supplémentaires et deux grands écrans de projection numériques sont disposés le long du chemin qui côtoie la zone archéologique ; on y traite des sujets généraux, concernant aussi les comparaisons avec les découvertes préhistoriques trouvées sur le territoire régional.

Espace musée abritant les stèles anthropomorphes restaurées, des vitrines avec des artefacts et objets du trésor funéraire, des reproductions archéologiques, des panneaux, des appareils multimédias, des appareils tactiles pour les malvoyants.

Le chemin de l'espace muséal est structuré dans l'ordre chronologique, l'itinéraire s'articule en six sections, distinguées par différentes couleurs ; comme déjà dit, le site archéologique est présenté au moment de la conclusion des fouilles.

- section d'introduction ;
- espace du labour ;
- espace des puits rituel ;
- espace des poteaux en bois ;
- espace des stèles anthropomorphes ;
- espace des tombes et des sépultures.

La visite se termine montant à une altitude de 0 par la rampe qui longe le tumulus de l'âge du Fer, pour arriver en surplomb de la zone archéologique et sortir en direction du guichet.

Muséologie et muséographie

L'intégration du site archéologique avec son musée à l'intérieur d'un seul bâtiment, constitue une particularité qui permet au public de regarder l'ensemble d'un point de vue continue, ininterrompue et directe sur la zone des fouilles, le long du parcours qui se développe à partir du niveau des vestiges jusqu'au premier étage. En explorant chacune des sections, le visiteur peut aussi découvrir directement le site : un jeu de rappels réciproques s'instaure ainsi, créant une dialectique constante entre les monuments et le musée. Les données explicatives on les retrouve dans les panneaux didactiques du musée.

L'effet recherché à l'entrée de cette salle grandiose (cinquante mètres par cinquante) est de susciter chez le visiteur une compréhension visuelle et émotionnelle de cet ensemble monumental, en lui permettant de le percevoir immédiatement comme tel ; le langage muséologique et muséographique communique, d'une forme simple et claire, le dialogue continu entre les monuments in situ et l'itinéraire de visite et le parcours didactique. Même l'éclairage constitue un code de lecture, une expérience instructive à travers le dynamisme de la lumière, qui donne vie et importance aux structures. Illustration du temps qui passe, les intonations lumineuses teintent l'atmosphère dans laquelle sont immergés les vestiges archéologiques : on a l'impression d'une évolution graduelle de la connaissance du site grâce aux suggestions transmises par les variations de la couleur modulée selon les différentes heures du jour.

Le parcours de visite représente le partage, à divers niveaux, de la recherche, qui communique ses résultats à travers différents moyens élaborés pour un public hétérogène.

Pour une lecture la plus correcte des matériaux retrouvés, un nombre d'objets originaux ont été exposés dans les salles du musée, tandis que – pour des raisons narratives et topographiques – dans le site ont été placées des copies, déclarées comme telles au commencement de la visite.

Ça concerne surtout les stèles : mises au jour abattues, la face décorée était contre le sol et serait impossible de la voir en la laissant dans le même état et la même position de découverte. Le concept muséologique voulait que les stèles soient traitées non seulement comme des matériaux archéologiques, mais aussi comme des œuvres d'art (elles sont considérées éléments fondamentaux de la grande statuaire anthropomorphe préhistorique). La valeur artistique, étant prééminente sur toutes autres, nécessite qu'elles doivent être vues sous la forme la plus appropriée possible, correctement positionnées et éclairées. Pour cette raison il a été décidé de placer les originaux dans la section du musée qui leur est dédiée et de créer des reproductions à placer sur le terrain d'excavation, afin de permettre une lecture plus claire et plus immédiate du site.

Synthèse entre représentation médiatique de l'archéologie et rigueur scientifique du message culturel, ces copies ont permis des solutions muséales d'innovation ; il s'agit d'un instrument – même non-verbal – qui communique des contenus en forme didactique, pour une totale inclusion des visiteurs, entendus comme 'grand public'.

Choix impopulaires (?)

L'Aire mégalithique – parc archéologique et musée de de Saint-Martin-de-Corléans, veut être une synthèse entre la découverte d'un site archéologique, avec le pathos de la fouille, la terre enlevée, la surprise des matériaux mises à la lumière, et un musée où les vestiges et les objets sont présentés et expliqués avec une sévère rigueur scientifique : tout ça se retrouve à l'intérieur du site, selon les nombreuses facettes de l'exposition.

Mais qu'il se passe avec le bâtiment qui abrite les monuments ?

L'aspect extérieur et l'impact architectural et urbanistique de la couverture du site ont produit des réactions très fortes dans la collectivité, à partir des habitants du quartier. Ceux – ci ont donné une lecture négative des œuvres, rejetant la présence invasive du bâtiment, considéré comme un intrus dans le contexte des typologies de logement environnantes. En outre, des critiques – habituelles et prosaïques – sont formulées sur le fait que, au lieu d'être considéré comme un investissement culturel susceptible d'entraîner des répercussions économiques pour le secteur induit, le complexe muséal est une perte d'argent public et de temps.

La difficulté est la communication du complexe, mal perçu dans sa fonction et sa destination : les nécessités objectives de la protection des monuments ont été reçues, mais aux valeurs de tutelle, de conservation, de protection, s'ajoutent -et dépassent presque les besoins de la recherche et du savoir – les buts de l'utilisation, pour lesquels l'action fatigante de la promotion est essentielle.

On cherche de résoudre l'impasse avec de solutions visant à créer de l'intérêt, de la fidélisation et même de l'orgueil pour les témoignages de l'histoire commune, adressées surtout aux habitants du quartier, mais ouverte aussi à tous et en particulier aux nouvelles générations.

Il ne suffit pas des événements spéciaux pour changer la vision critique de la réalisation du complexe, il faut exploiter des ressources originales, alliées à toutes les formes d'information, en utilisant aussi les recours médiatiques – jusqu'à ce moment faibles – d'une façon continue.

Communication, formes d'accessibilité

La première stratégie de communication passe à travers l'émotion engendrée par la vision générale de la vaste aire archéologique, illuminée par un effet de nuances lumineuses, suggérant les différentes heures de la journée. La compréhension de toutes les phases de fréquentation du site se réalise en circulant à travers les différentes sections muséales, organisées à partir des périodes plus anciennes jusqu'aux phases plus récentes.

La communication se développe également avec la directe implication et la participation du public, dans des formes parfois inédites, faites sur mesure pour le site. À partir du 2017 le musée a développé d'une série d'activités didactiques pour les écoles de tout degrés, (qui ont reçu cette proposition avec un bon retour de satisfaction). Aussi des activités spécifiques périodiques concernent les familles et le grand public en général, avec laboratoires, visites- événement, conférences.

L'utilisation de systèmes de communications diversifiés apporte à la combinaison de diverses méthodes d'apprentissage pour rejoindre les différentes catégories de visiteurs : c'est une offre culturelle qui part des panneaux explicatifs pour arriver jusqu'aux copies tactiles de certains vestiges.

Le parcours de visite de l'Aire mégalithique de Saint-Martin-de-Corléans a été conçu pour une totale accessibilité, qui permet de passer le long du site archéologique, au niveau des vestiges et de traverser toutes les sections du musée sans barrières architectoniques, en gardant le contact visuel sur le site, grâce à un dialogue continue entre structures, couches et salles muséales.

Une partie de l'itinéraire est actuellement créée pour l'accessibilité des malvoyants avec des éléments tactiles et des légendes écrites avec l'alphabet BRAILLE. Bien que destiné aux aveugles, la présence d'objets tactiles intrigue et implique enfants et adultes. Cela a permis de réaliser une activité spéciale, 'une visite dans le noir', dans laquelle la typologie du visiteur (voyant) doit inverser son point de vue (devenir aveugle) : la visite est donc conduite par un guide aveugle et s'adresse aux personnes ayant les yeux bandés qui, grâce à l'utilisation des autres sens, apprennent à connaître le site d'une nouvelle manière.

Ici les paroles de la guide qui avait conduit 'dans le noir' les visiteurs le long du chemin de l'Aire mégalithique de Saint-Martin-de-Corléans : 'Le toucher est complémentaire de la vue, donc ce n'est pas un substitut. Dans mon état j'utilise le toucher comme un instrument de la vie quotidienne ... mais mon idée est d'amener les gens, les voyants, à voir et toucher les matériaux archéologiques, ou un site, pour que ces gens, les voyants, utilisant la vue, puissent alors avoir une vision plus complète ... car elle a aussi été touchée. Par conséquent, le toucher et la vue font partie intégrante de la même vision plus large, qui inclut les deux sens.'

Giulia Oblach, médiatrice culturelle, aveugle depuis sa naissance.

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