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Massi di Cemmo:
from Cultic Sanctuary to National Park
An Overview and Proposal of Changes based on Accessibility

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Introduction

Parco Archeologico Nazionale dei Massi di Cemmo is a national prehistoric park located near the town of Capo di Ponte in central Valcamonica. It is most widely known for its two large, engraved boulders, Cemmo 1 and 2, and as a Northern Italian Copper Age Sanctuary. The national park as it exists today was founded in 2005 and most recently updated in 2017.¹ It exists as one of the seven parks that make up a majority of UNESCO site no. 94, the “Rock art of Valcamonica,” the first site in Italy to be put on the World Heritage List in 1979.² Though this site is comparatively small, it has played a relevant role in the development of Valcamonica as an important prehistoric area, as the first mention of the engraved boulders in 1909 gained the valley early scholarly attention. This awareness of the site has fluctuated over the past hundred plus years with spikes after interventions by charismatic professionals and interesting archaeological finds. Today the site is open to the public and acts as an educational ambassador, where visitors come to learn about the Copper Age in Valcamonica. *Massi di Cemmo* remains a singularly unique site with an important and fascinating history that deserves greater attention, which is what spurred this project into action.

The explicit goal of this project is to provide research-backed suggestions on how to enhance visitor experience and valorize *Parco Archeologico Nazionale de Massi di Cemmo*. Within this larger aim, is the intention to show how small (and inexpensive) changes can make an impact on visitor participation and educational returns at national/provincial parks in Valcamonica through the use of *Massi di Cemmo* as a case study. Another objective of this work is to create an up-to-date and comprehensive understanding of the time span of human activity at *Massi di Cemmo* using archeological data.

To accomplish the above objectives, this project is split into two basic categories. The next two sections (2 and 3) make up the first category and explore the context of *Massi di Cemmo* by discussing a different approach to academic methodology when it comes to prehistory, the physical and chronological context of *Massi di Cemmo* specifically and Valcamonica more basically, the history of human interactions as viewed through archaeological findings and the history of the presentation of the site from its first published reported sighting until today. The rest of the sections (4, 5, 6 and 7) make up the second category which focuses on suggestions for the site, more specifically on considerations like accessibility and what other rock art sites are doing to achieve similar goals, the proposed suggestions themselves split into two further categories and finally the conclusion. In addition, there are also appendices lettered A-L that show infographics, artistic renderings, data collected, example lesson plans and more.

¹ This is the most recent update of which records are available.

² <https://whc.unesco.org/en/list/94/>

2.1 More-Than-Human Interactions

To create a more dynamic understanding of the archeological and historical situation of Valcamonica (and to a lesser extent Valtellina), it might be useful to use the lens of Indigenous Studies to expand on the relationships between the physical reality of the Valley and people's evolving connections to it. So, to begin, what is meant by "the lens of indigenous studies" and why does it apply to Valcamonica?

The frustrating and sometimes unfortunate reality of studying prehistory means that there is a lot of missing context, specifically cultural and social context. In the case of Valcamonica, there are many examples of material culture that can tell us what places within the valley were important and more rarely, how people may have lived. Exploration of sites and scientific processes/tools can tell us when, where, and how different activities occurred like the clearly seasonal rituals observed during the copper age on the Ossimo plateau, but they cannot tell us who or why. These processes/tools can seem to artificially sunder a physical space, from the social and historical reality of how people once experienced it. This disconnect does not discount the importance of information gleaned through these processes, but instead shows that "Spatial science does not exact a wholesale abstraction, alienation, and devaluation of space, but rather particular, historically and culturally intelligible kinds of valuation of it..."³ It exists as part of a whole, creating a greyscale map, accurate, but missing something that would make it richer.

This is where viewing the valley through the lens of Indigenous Studies can become useful. Indigenous studies offer different ways to look at a location that are based on conceptualizations of history and interconnection, and time and space practiced by people who exist outside of the Global North, which can give us as academics⁴ new insight into the relationships that exist within an area of interest. This lens can push scholars to see beyond a physical location or material culture, promoting a form of exploration that can see space, as place, a locality which "gathers human and non-human beings together within a phenomenal coherence that allows for engagement, reciprocity, and questioning."⁵ By viewing a landscape as a web of interconnected relationships not mapped onto but created by a physical landscape, academics can gain a more nuanced understanding of what could have been.⁶

When combining these two forms of valuation, one more rooted in analysis and scientific thinking, and the other an exploration of interconnectedness and an intimate knowledge of the land as a language, one can begin to see Valcamonica in a new light,

³ WHITRIDGE 2004, 216.

⁴ "Classically trained" in western ways of knowing

⁵ LARSEN, JOHNSON 2012, 7.

⁶ This is not the first time someone has married indigenous understandings of place into the study of Valcamonica. In the paper *Statue-menhirs, Human Remains and Mana at the Ossimo 'Anvòia' Ceremonial Site, Val Camonica* by F. Fedele published in 2008, he discusses the concept of *Mana* which originates in the Polynesian/Melanesian cosmology. My inclusion of indigenous thought will be far more generalized so as to remain respectful to the still living cultures it borrows from.

something that may exist closer to the understanding of its prehistoric inhabitants. It has been in the same space for millions of years and experiences time in a way far from linear, watching silently. Valcamonica has been affected by generations of people, who have in turn been affected by it creating a reciprocal form of “externalized culture, which then can act as autonomous, external forces shaping further human understanding choices and actions.”⁷ It is the soil in which the human experience is rooted, thereby forcing people “not to control or change the world as a human, but to learn from the world how to be human.”⁸ The valley, with its cool glacial river and many branching streams, with its high plateaus and glacially carved basin, with its smooth sandstone rocks and sub alpine meadows, itself is a meaningful piece of the story. Not as the space in which history happened, but an active participant in its creation. Try to see through this scope and take a closer look at the history of interactions between humans, each other and more-than-humans⁹ in Valcamonica.

2.2 Physical Geography of Valcamonica and Valtellina

2.2a Geology

To understand the story and importance of the Massi di Cemmo, one must first know the story of the valley itself. Valcamonica is a beautiful example of a “classic” glacial valley.¹⁰ Its deep U-shape is carved into the Verrucano Lombardo conglomerate that makes up the base of the valley, made by millions of years of alluvial deposits.¹¹ There are other hints of a glacial landscape carved by water and ice: the deep striations that ancient people used to enhance their artistic creations, potholes slowly created by running water, moraines tucked in the saddles between peaks, erratics that became landmarks and hanging valleys filled with villages that seem to be floating high above the Oglio river below. Even today

⁷ ROBB 2009,166.

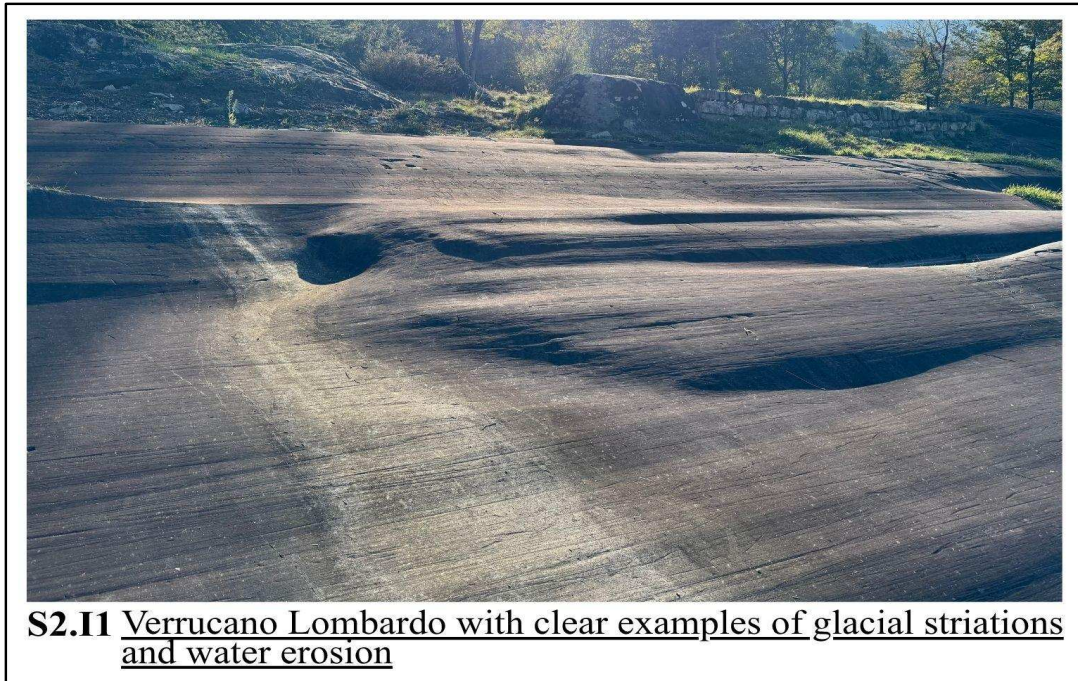
⁸ WALL KIMMERER 2013, 248.

⁹ WHATMORE 2006, 604.

¹⁰ Two very common forms of valleys are those carved by rivers, which appear to be ‘V’ shaped and those carved by glaciers which are ‘U’ shaped. This ‘U’ shape comes from the movement of glaciers over time as their immense size and weight acts as a bulldozer, shoving through rock to make space for itself leaving behind the iconic flat-bottomed valleys we see today.

¹¹ HELMOLD *et al* 1982.

with all the anthropogenic changes that have been made, it is easy to see what drew ancient people to this place.

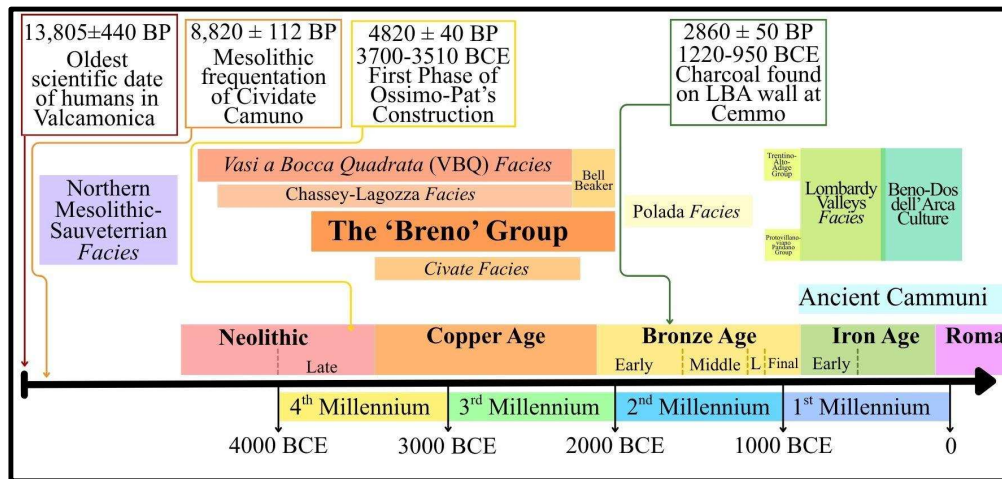


Beyond the beauty of Valcamonica, it behooves one to look at what may have been most important to the people that came: the ground beneath their feet. By the time that people arrived in the Valley, a lot had changed, but two things remained true: glacial silt is good growing soil¹² and bare rocks (whether bare on the ground, or as an erratic) create a unique and dynamic space to use and explore. Verrucano Lombardo is a sedimentary rock which allows for deep marks to be left far easier than in metamorphic rock, but its lack of carbonate components destroy its abilities to be an “effective fluid pathway,” meaning that once carved, even exposed to the elements, it will take far longer to erode.¹³ This special geological feature created the opportunity for people to create cultic objects that could be continually added to, and still last generations, leaving behind the art that Valcamonica is still famous for today. As will be explored in more depth later, it is clear that the geology of this place had an effect on its inhabitants, as the people shaped the valley, it shaped them back.

¹² TINGEY *et al.* 2024.

¹³ HELMOLD *et al* 1982, 1384.

2.3 People and the Valley



2.3.a People in the Valley

As of current archaeological evidence, the oldest material culture in Valcamonica is that of the Late Epigravettian, which has been radiocarbon-dated to 13,805±440 BP, found at the site of Cividate Camuno¹⁴; further evidence of the same period has been mentioned for the site at the Castello di Breno by Francesco Fedele. While not much was found at the later, Cividate Camuno has given us a very interesting look into the earliest people to occupy this area. Excavations have found evidence of a paleolithic structure and many microlithic stone tools, specifically a high frequency of hyper-microlithic retouched Truncations, which match perfectly with the Northern Mesolithic-Sauveterrian *facies* and place the period of industry between the Middle and Recent Sauveterrian phases.¹⁵ This important site also testifies to what life was like in the mid to late neolithic era, with the finding of sherds of pottery from the Vasi a Bocca Quadrata (VBQ) culture and the remains of a wooden platform settlement.¹⁶ In addition to the VBQ culture, the late Neolithic is also marked by the occurrence of Chassey-Lagozza type material culture found primarily more towards the west (though it was also found in the plains of Eastern Lombardy) and most importantly the material culture of the 'Breno' group which seemingly provides a type of 'cultural'¹⁷ homogeneity which ties Valcamonica together.¹⁸ These groups continue into the

¹⁴ BIAGI, STARNINI 2015.

¹⁵ We also see evidence of lithic industry at this time at Massi di Cemmo, but that will be discussed further down in this section.

¹⁶ https://www.researchgate.net/publication/366589708_Le_industrie_litiche_paleolitiche_e_mesolitiche_di_Cividate_Camuno_-_Via_Palazzo_Valle_Camonica_Brescia_sistemi_tecnici_e_materie_prime. (Accessed 22 May 2026).

¹⁷ Cultural in this sense is directly talking about Material Culture, not culture as in ethnicity.

¹⁸ RONDINI 2023, 343-4.

Copper age and show signs of interacting with people who lived in the Pre Alps and beyond into the Po Plains. The clearest sign of this meeting is the finding of Remedello type daggers in graves of the lowlands and the same daggers engraved on stelae/menhirs in megalithic sanctuaries further up into Valcamonica and even Valtellina.¹⁹ The late Copper Age saw the depopulation of stable settlements and the decommissioning of sanctuary sites, as well as a gap in occupation that lasted into the Early Bronze Age. After this gap, archaeological evidence shows an infiltration of the valleys by a pile dwelling culture which created stable settlements and continued metallurgical activities in Alpine areas. A lot of the Bronze Age in Valcamonica remains unclear as there is sparse evidence but luckily the final stage of this period has offered more remains of material culture which set the stage for the Iron age.²⁰ In terms of settlement patterns, this is a phase of ‘on’ growth in sites that were created earlier and used on and off during the pre and protohistoric period, places such as Dos dell’Arca, Breno-Castello, Luine and others. What is new during this period that continues into the Iron Age is the creation of new settlements for the purposes of controlling access to geographically important locations,²¹ which would later continue in addition to settlements created to do the same to raw materials like copper.²² Another point of continuity between these two phases is the reactivation of previously abandoned cult sites like *Massi di Cemmo* and *Ossimo-Pat*, though the rituals done at the sites change. Finally, trade, specifically in metal goods, continued to be an important part of life in the valley, though how it was done, who participated and how, and demand differed and evolved over time. These points of continuity led to formation of a more cohesive ‘cultural’ group in the pre Alps and Alps of Lombardy.²³ This early Iron age melding process likely led to, during the middle to late Iron age, sources referencing the “Cammuni” as one of the ethno/cultural groups of the Alps, specifically of Valcamonica and Valtellina in writings by ancient sources like Pliny the Elder and Strabo.²⁴ This is the last stage of development in the pre and protohistoric periods, as the next big change comes with the Roman Conquest of the Alps and the Romanization of the people in the valley.

2.3.b Evolving Economics

As seen in the evidence above, people have been in Valcamonica for many years. Through time, roles have changed and shifted, but there are three specifically human interactions that can be seen in people of the valley from its prehistoric past all the way until today: exploitation of natural resources, cultivation of the land and trading amongst different communities. While the ways these actions are completed vary greatly today from the distant past, it is important to highlight how there is a connection and form of continuity between the

¹⁹ RONDINI 2023, 346.

²⁰ It is important to note here that the material culture is not continuous but shows continuity as there is evidence that the Late Bronze Age Collapse affected this area.

²¹ RONDINI 2023, 350.

²² RONDINI 2023, 354-5.

²³ RONDINI 2023, 360.

²⁴ MARZATICO, SOLANO 2022, 2.

two very different groups of people of the valley. This idea reaches back to the goal of this undertaking which is to create connection to the past through the means of today and to do that one must explore and add depth to the continuities that still exist.

While the exact arrival date of people in the valley is unknown, piecemeal archaeological finds and the use of palynological surveys at specific sites throughout Valcamonica and Valtellina point towards the upper paleolithic as the beginning of when people began to explore and exploit the valleys' resources.²⁵ In this post glacial time period, it can be extrapolated that the "fast" growth of conifer forests at the valley bottom created new habitat for game animals that would have acted as an enticing new hunting space for people who lived in the area as early as 16,700 cal a BP.²⁶ Moving forward to the Mesolithic, evidence of the frequentation of seasonal camps at higher altitudes, accompanied by evidence of forest fires that may have been instigated by humans to create subalpine meadows,²⁷ shows a more intentionally anthropogenic connection to Valcamonica.²⁸ This impact only grows as about 7,000 years ago during the neolithic age, the first evidence of grazing animals and cereals appeared in the valley, introducing cultivation as another but distinct form of resource exploitation. Cultivation will continue to be of vital (and even spiritual) importance moving forward, though the form it takes will change with time, technology and climate. Some of these forms include high altitude herding, which appears to start during the late copper age, intensive farming and animal husbandry which starts during the Iron age and modern farming which is practiced today. Alongside cultivation and hunting, there is the utilization of the raw materials of the valley such as lumber and mineral deposits (specifically copper). Evidence of wider spread human based ecological change appears in the valley starting as early as the middle Neolithic period, where scientists found pollen samples that point to major population growth of Beech trees (*Fagus Sylvatica*) and a decline of Silver Fir (*Abies Alba*).²⁹ This may imply that the fir trees were more affected by the "anthropic fires" of neolithic populations, making way for Beech trees in the changing climatic conditions.³⁰

Resource exploration and exploitation only increases over time, as shown by the long tradition of metallurgy in Valcamonica, both mining and metalwork, that began as early as the 3rd millennium in places like Lovere and Malegno.³¹ Malegno shows evidence of specialized craftspeople from different settlements working together on different stages of the metallurgical process by the 700s BCE at the latest, introducing a manner of production which seems very modern.³² These patterns of resource use continue to this day as forestry and metalwork (like steel production)³³ are still vital economic activities within the valley.

²⁵ PINI *et al.* 2016, 23.

²⁶ *Ibid.*

²⁷ This would need to be studied in more depth, but anthropologically speaking makes sense. Indigenous communities like the Makah tribe in the U.S. used/continue to use slash-and-burn techniques to create and maintain habitats like meadows or clearings to attract important prey animals and edible plants.

²⁸ PINI *et al.* 2016, 26-7.

²⁹ PINI *et al.* 2016, 27.

³⁰ *Ibid.*

³¹ POGGIANI KELLER 2017, 117.

³² RONDINI 2023, 355.

³³ <https://www.gruppopianoni.com/en/about-us.html> (Accessed 26 April, 2026).

Intercommunity trade began during the Mesolithic, at which point people in the valley seemingly became more integrated into the already existing systems of trade in the Po plains. At Massi di Cemmo, stone tools have been found, and appear to be made of high quality flint from the Lombardy formations, over 40 km away.³⁴ While south of Massi di Cemmo, at several sites including Lovere, the finding of slag and specialized tools for metal working, implies that copper deposits from higher in the mountains had been moved and worked closer to the mouth of the valley.³⁵ Also in this site located near Lake d'Iseo, archaeologists have found pottery with design elements from the Saone-Rhone - Auvernier group, a transalpine culture that existed in the middle copper age, showing just how far 'local' trade of objects and ideas extended in this period.³⁶ Together these small clues create a larger picture, highlighting how the valley was becoming part of a larger interconnected human region and a gateway to northern Europe.

As the world has become more globalized, trade has expanded with Valcamonica continuing to participate. Beyond the creation and selling of the more industrial and widely exported products, such as lumber and steel mentioned above, even more localized products made in the valley like Rosa Camuna cheese can be found in stores around Lombardy, showing the continued interconnectedness of the valley to the Po plains.

The people who have lived and continue to live in Valcamonica have a deep connection to the valley in terms of their livelihood. This in turn, seems to have affected how people, both in prehistoric and recent times, perceive of the physical nature of the valley and their reciprocal relationship with it. The time in which this link is clearest is the Copper Age.

2.4 People of the Copper Age in Lombardy

The Copper Age was a time of change and innovation, and in Northern Italy it spanned the second half of the 4th millennium to the late 3rd millennium.³⁷ One of the biggest changes from this period was the integration into society on a larger scale and spread of metalwork, specifically Copper alloys. The higher areas of the Alps became more important as they were a source of copper, and metalworking became a well-known trade good from Valcamonica and Valtellina.³⁸ Besides metalwork, other similarities begin to be seen between Valcamonica and Valtellina in the copper age, specifically a seemingly shared ideological system around death practices and sacred sites.³⁹

³⁴ MARTINI *et al.* 2016b, 90.

³⁵ POGGIANI KELLER, BAIONI 2014, 269.

³⁶ POGGIANI KELLER, BAIONI 2014, 270.

³⁷ POGGIANI KELLER 2016, 431.

³⁸ POGGIANI KELLER 2017, 117.

³⁹ POGGIANI KELLER, BAIONI 2014, 87.

2.4a Death in the Copper Age

While the burial practices in the Alps varied greatly from those in the Po Plains, there is one thing they did have in common, and this was the rituality of surrounding death. There are two main forms of ritual practices surrounding human remains in the Alps and Pre Alps during the 3rd millennium that show a layer of cultural coherence: multi-step burial processes and Sanctuary deposits.

Rock shelter burials are found mostly in the Pre Alps⁴⁰, and of these there are several important and heavily researched sites: Piazza Generale Ronchi (Breno Castle Hill)⁴¹, Riparo Valtenesi (near the Lombardy edge of Lake Garda), Riparo Cavallino (Monte Covolo), and Corna Nibbia (in the municipality of Bione).⁴² Geographically there is one important similarity between all of these sites and that is the placement of the funerary sites is at the base of a cliff or steep slope. Specifically human remains were often placed at the area of the shelter where the cliff met the ground providing cavities and niches in the rock.⁴³ This physical situation would have made these collective burial sites “distinctive [and] functional landmarks over extensive territories.”⁴⁴ There were other geological features that would have held importance in the relationship at or near each site. The Piazza Ronchi site is located on the edge of a rocky slope which is not only where the ascent path for Breno Castle Hill may have begun in ancient times, but also produced ‘loose’⁴⁵ naturally squared blocks with which the funerary structures could be built.⁴⁶ Riparo di Valtenesi is on the edge of Lake Garda, highlighting the widespread prehistoric association between water and death (or the spiritual place beyond death), while Corna Nibbia was located on a sink hole causing bones to disappear over time, reinforcing ancient people’s beliefs that the location was a liminal space between their world and the next.⁴⁷

In terms of seeming rituality, there are multiple underlying similarities, which are executed differently depending on the specific site. One such similarity is that multiple chambers are part of the same funerary complex but seem to have different roles. At Riparo Cavallino, archaeologists found two main burial structures, the main burial chamber and the southern burial chamber occupied by human bones in square pits implying that wooden boxes were used as a container for bones.⁴⁸ Riparo Valtenesi also seemed to use multiple wooden chambers with beach pebble flooring which were created differently than those mentioned before.⁴⁹ While Corna Nibbia did not show use of wooden boxes, it did have two burial structures, Enclosure A and Enclosure B, and Piazza Ronchi seemed to use a combination of both, as Tomb 3 stone blocks for the walls of the enclosure with a wooden (or other

⁴⁰ The farthest North is Foppe di Nadro (shelter 2).

⁴¹ BASSETTI *et al.* 2024b, 53.

⁴² POGGIANI KELLER, BAIONI 2014, 88.

⁴³ POGGIANI KELLER, BAIONI 2014, 88.

⁴⁴ *Ibid.*

⁴⁵ Loose in this sense means that the blocks do not need to be shaped or cut, but are already the correct shape and are held together as part of the cliff by other deposited sediment. So when flooding occurs, the blocks fall in landslides and essentially ‘harvest’ themselves making the location ideal for the building of rock structures.

⁴⁶ BASSETTI *et al.* 2024b, 53.

⁴⁷ POGGIANI KELLER, BAIONI 2014, 88.

⁴⁸ *Ibid.*

⁴⁹ BARFIELD 2007, 436-8.

perishable material) to protect the remains from the top.⁵⁰ Scholars have several interpretations of the use of these differentiated chambers, but the likeliest seems to be that they were the location of different practices that were part of the same ritual, specifically related to the preparation of the dead.⁵¹ The evidence pointing to this conclusion is in the articulation of bones and the open nature⁵² of Enclosure B, compared to their chaotic arrangement and the closed nature of Enclosure A at Corna Nibbia.⁵³

Another example of rituality is the continued return to each site and evidence of cultic practices. At Riparo Valtenesi and Corna Nibbia, archaeologists have found low stone platforms with indicative presences of hearths, as well as post holes which would have held wooden totem and may have functioned as a sign of ownership, information on who was buried there and/or served a similar purpose to standing stone structures found elsewhere in Western Europe.⁵⁴ Piazza Rincho was also found to have a low stone platform that was clearly human made, but had no traces of human activity beyond its building implying that this version of this feature was ritually cleaned.⁵⁵ Additionally at Corna Nibbia and Riparo Cavallino, there is a significant amount of evidence pointing towards a Skull Cult, with people at Corna Nibbia going as far as to place fully intact skulls in cists at the northern part of the rock shelter and also using fragments of skulls to seemingly ‘sanctify’ both enclosures.⁵⁶ Finally, all mentioned locations see the use of fire as part of their rituals, shown by the evidence of ash of seeds, fruit and wood found in the hearths or in close relationship to the remains⁵⁷ and fires set in front of chambers or enclosures.⁵⁸ Fire was also used as part of a practice of secondary cremation at Riparo Valtenesi after the bodies had been inhumed.

These sites give us a peek into what death rituals may have looked like in the Pre Alps during the Copper Age: heavily ritualized, labour intensive and lovingly carried out.

Sanctuary deposits of human remains have some similarities to Rock shelter burials, but they are distinct in a few key ways. Firstly, these are not mass deposits, at most having only two individuals, or sometimes only fragmentary remains of a singular person. Secondly, these deposits are usually from later in the copper age, showing perhaps a change in the nature of funerary culture. Finally, their deposition changes the context and layout of the sanctuaries they are placed in. To explore these three distinctions, one must take a look at 3 of the best preserved and explored sites: Ossimo-Anvoia, Ossimo-Pat and Massi di Cemmo. The two sites on the Borno Plateau are the most well preserved and have the highest amount of human remains.

⁵⁰ BASSETTI *et al.* 2024b, 94.

⁵¹ POGGIANI KELLER, BAIONI 2014, 88-9.

⁵² This would allow for more frequent and easier entry by humans and scavenger animals (to help with decomposition).

⁵³ POGGIANI KELLER, BAIONI 2014, 90, 92.

⁵⁴ POGGIANI KELLER, BAIONI 2014, 90, 92.

⁵⁵ BASSETTI *et al.* 2024b, 75.

⁵⁶ POGGIANI KELLER, BAIONI 2014, 89.

⁵⁷ BASSETTI *et al.* 2024b, 83.

⁵⁸ POGGIANI KELLER, BAIONI 2014, 89.

At Ossimo-Anvoia,⁵⁹ the depositions were found in Cairn F2A and contained thousands of bone fragments, some of which were burnt, from at least one adult and one 5–6-year-old.⁶⁰ The Cairn was placed on top of the bone material, as the rock surface below was burnt closely matching the spread of fragments. This in addition to the fact the bones show evidence of dry-cracking and coloration due to ochre/cinnabar, informs us that this is no way a primary deposition, meaning the bodies were moved to this cultic site for some reason lost to time.⁶¹ Movement of already prepared human bones, as well as the secondary cremation demonstrates how the funerary culture of the Lombardy Pre Alps was connected to these megalithic sanctuaries, creating a hint of a cohesive funerary culture.

Ossimo-Pat is a different story, on the northern side of the site, is a circular structure with a platform made of small stones within this structure is “an east-west oriented stone cist made of large slabs and no cover.”⁶² Inside of the cist were disarticulated human remains belonging to two individuals: an adult man for whom the tomb was his original and final burial place, and a child between the ages of 6-9.⁶³ The adult inhumation was missing some of the bones of his hands and feet, which is common when a body is moved for burial rituals or other post-burial activity, after being defleshed and consistent with the rock burial shelters discussed above.⁶⁴ The child inhumation on the other hand, is made of just three rib fragments, this too is consistent with the idea that their remains were manipulated in funerary rituals or later, as the more the body is moved, the more likely it is to loose pieces (especially if it is already disarticulated).⁶⁵ Both people had grave goods, the adult man had a stone dagger and five arrowheads identifying him as a warrior while the child had a few sherds of pottery.⁶⁶ The grave goods and clear movement of remains also ties this sanctuary’s human depositions to that of the funerary culture of the Lombardy Pre Alps as well as to the other sanctuary on the Borno Plateau.

Massi di Cemmo has a very different situation in comparison to the other two case studies, as well as to the Rock Shelter burials, but it does have at least two things in common: rituality surrounding human remains and their movement. As of now, there has been only one piece of human bone found at the site, a “battered” fragment of human skull.⁶⁷ The singularity of this piece, as well as its “battered” nature clearly identify that its final resting place at Massi di Cemmo is far from its first. Beyond the movement as a form of rituality, the piece of skull was found set on a cobbled floor made of pebbles and sherds of pottery, in a sectioned off portion of the site, in front of a fragment of a boulder known as “Cemmo 20.”⁶⁸ This unusual context speaks further to the idea that human remains were tied to a form of ritual that was connected in some way with stone, an idea which will be discussed more in the next section.

⁵⁹ Will be called Anvoia from now on.

⁶⁰ FEDELE 2008, 70-1.

⁶¹ FEDELE 2008, 71.

⁶² POGGIANI KELLER 2016, 434.

⁶³ POGGIANI KELLER 2022, 352.

⁶⁴ POGGIANI KELLER 2016, 434.

⁶⁵ POGGIANI KELLER 2022, 352.

⁶⁶ POGGIANI KELLER 2022, 352.

⁶⁷ POGGIANI KELLER 2013, 120-1.

⁶⁸ POGGIANI KELLER, BAIONI 2014, 97.

While the funerary culture of the Lombardy Alps and Pre Alps in the Copper Age differs from site to site, the rituality and importance of human remain culturally show a deep connection between their varied contexts. These practices, when examined with a wider lens, accentuate the deep bond between people and land, one that is made physical during this time with the building of megalithic sanctuaries.

2.4b Cultic Creations of the Copper Age

With the Copper Age came the rise of Megalithic sanctuaries in the Alps, a key element of which is monoliths. Between Valcamonica and Valtellina the location of 30 monoliths with Copper Age engravings are known, and of these, 18 are still placed directly within their original contexts.⁶⁹ As a result of this and the finding of multiple monoliths in a singular site, scholars have been able to identify a network of cultic sites in each valley with recognizable similarities pointing to the cultural coherence of the valleys of the Lombardy Alps during the Copper Age.⁷⁰ This network of ritual sites share more than an iconographic milieu, which becomes extremely clear when looking at the sanctuary sites of Valcamonica.

Copper Age sanctuaries of Valcamonica can be divided into two main subsections based on their geographic area: one (Alpine) located on “plateaus at an altitude of 600/850m above sea level,” and the other (Valley) located on the valley floor, isolated, and at the base of a cliff.⁷¹ To compare the differences and similarities of these subtypes, one can use case studies, two of each:

Alpine

- Ossimo-Pat (on a terrace near the Locality of Pat on the Borno Plateau)⁷²
 - Ossimo-Anvoia (on a saddle at the base of a hill on the Borno Plateau)⁷³
- Valley
- Massi di Cemmo (in the hollow of the small valley of Pian delle Greppe)⁷⁴
 - Masso dei Corni Freschi (in lower Valcamonica at the municipal park of Luine)⁷⁵

⁶⁹ POGGIANI KELLER 2022, 346.

⁷⁰ *Ibid.*

⁷¹ RONDINI, MARRETTA 2026, 3.

⁷² FEDELE 2008, 59.

⁷³ FEDELE 2008, 57.

⁷⁴ This is the description of Pian della Greppe used on signage provided by the National Park at Massi di Cemmo.

⁷⁵ POGGIANI KELLER 2000, 41.

Comparison of Findings at Copper Age Sanctuary Sites in Valcamonica					Symbol Key
	Corni Freschi*	Anvòia	Pat	Cemmo*	
Engraved Megalithic Monument(s)	✓	✓	✓	✓	*Valley Sanctuary Sites
Large Immovable Boulder(s)	✓	✗	✗	✓	✓ Found on site
Geographical Exposure	✗	✓	✓	✗	✗ NOT found on site as of now
Proximity of Steep Cliff	✓	✓	✓	✓	△ Complicated due to Human Interaction or Running Water
Open Space/Meadow (Natural or Created)	✓	✓	✓	✓	
Ritual Fires	△	✓	✓	△	
Furrow Structures (Natural or Created)	△	✓	✓	✓	
Water Feature	✓	✓	✓	✓	
Human Remains INSIDE site	△	✓	✓	✓	
Monumental Structures	✗	✓	✓	✓	
Panoramic Eastward Views	✗	✓	✓	✓	

Info Graphic created using Canva by Madeline Lamwers

For both types there is one example with a ‘lifespan’ of the Copper Age (Anvòia and Corni Freschi) and one with a much longer life (Pat and Cemmo).⁷⁶ Despite the variety of location, longevity and notoriety, these four sites have a significant amount in common. As addressed in the chart below, there are several specific characteristics shared across one or more sites, though as previously mentioned all sites have at least one engraved megalithic monument. In the context of these four sites, there are three main forms of megalithic monument: Statue-Menhir, Stele and Engraved Boulder. Statue-Menhirs are most commonly found in Alpine Sanctuary sites, and made from rocks in their natural form, unshaped by human hands, but still engraved with usually anthropological symbolism.⁷⁷ These large stones are moveable, but do not usually need basal support to be free standing, and may have at one point been glacial erratics as part of local morainic deposits.⁷⁸ Stelae are rocks that have been artificially shaped from slabs and engraved, making them much more uniform, and most frequently found at Valley sanctuary sites. They are in need of basal support in the form of stones placed in their deposition holes as a counterbalance to keep them standing.⁷⁹

⁷⁶ From this point on, I will reference each site by the last parts of their names: Pat, Anvòia, Cemmo, and Corni Freschi

⁷⁷ FEDELE 2008, 58.

⁷⁸ POGGIANI KELLER 2022, 353.

⁷⁹ CASINI, FOSSATI 2022, 33-4.



S2.I2 View from in front of Cemmo 1 at 9:02 on an Autumn Morning

Finally Engraved Boulders are free standing monuments created from massive, immovable rocks that usually fall from nearby cliffs, but could be extremely large glacial erratics, that then sometimes have a surface flattened or prepared before engraving.⁸⁰ These are exclusive to sites on the Valley floor as that is where boulders can be found. In Valcamonica, iconography of Statue-Menhirs and Stelae come in two main forms: Type 1 (T1) or Armed and Type 2 (T2) or Adorned, which is discussed in greater detail in the next section.⁸¹ Monoliths at these four sites, no matter their typology, were mostly carved during the copper age, Cemmo being the only site where stele engraving continued into the Early Bronze Age.⁸²

Another characteristic that all four sanctuaries share is the close relationship between the sanctuary and a clearing or Meadow. In the case of the Valley sanctuaries, their close relationship to water would have made it harder for trees to grow allowing for natural clearings. In the case of the Alpine sanctuaries, the area in which they are located would have

⁸⁰ CASINI, FOSSATI 2022, 33.

⁸¹ In many of the resources I cite in this project, these two types are referred to as “Male” (T1) and “Female” (T2), but I will not follow this trend. This is not out of spite or pettiness, but from years of study of Queer theory (specifically the works of Dr. Judith Butler), Indigenous American culture and history, and new research into the disconnect between sex and grave goods in prehistoric Europe. In the end, I decided to use these other classifications because, due to the prehistoric nature of these artifacts, and the people who made them, we have no idea how they would have conceived of their own gender. To me assigning modern concepts of gender to prehistoric people seems disingenuous at best and damaging to future research at worst. It is for these reasons that I will refer to stelae type by visible attributes, specifically looking for the nature of their earliest engravings.

⁸² CASINI, FOSSATI 2022, 41.

been dominated by bare rock and sparse mixed woodlands.⁸³ This specific type of landscape could also be human made as evidenced by the land around Anvoia being more heavily populated by grasses and weeds due to human intervention at the site⁸⁴ and creation of open areas using controlled burns at Ossimo-Pat.⁸⁵ The final certain characteristic that all four sites share is a deep cultic connection to rocks, beyond the obvious monoliths. Each site provided a slightly different, but unique interaction with stones to their Copper Age Worshipers.

Anvòia has multiple unique rock features both natural and man-made that show the dynamic connection between people and the Valcamonica. Firstly, the furrows that sanctify the site are actually created naturally due to erosion of the grey marl stone, which created folds and layering that create a plowed-earth effect.⁸⁶ There are other natural physical features such as the “bedrock bench (F2A),” a natural mound (F15), and rocky protrusions that have been interpreted as foot or hand-like.⁸⁷ A specific type of deposition found at this site is a *Manuport*, or a collection of rocks that have a similar (or anthropogenic) look that were placed together in a way that could not possibly be natural and sometimes checked lightly to enhance a certain feature.⁸⁸ These small details and the reason each piece was chosen is lost to time, but shows an intimate connection between people, the site and other individual pieces of their material world. Cemmo also provides another form of this deep abiding connection to a sense of place through natural and man-made interactions with rock. The actual location of the sanctuary in Pian delle Greppe means that the site is almost entirely surrounded by cliffs or hills, while the area not encased has a sweeping view of the Valley. This situation makes the site feel as though it is in the palm of a giant hand, protected, secret and safe.⁸⁹ The ephemeral pool that once existed in the meadow of the site, fed by seasonal streams, only adds to the feeling of “collection” or gathering that the site exudes.⁹⁰ The cliff located directly behind the Cemmo boulders as well as the “cup-shape” of the valley has led to questions about the role of acoustics in choosing sanctuary sites or as a form of ritual.

Beyond these three clearly shared features, things get far blurrier, though not always for lack of trying. Valley sites are specifically a struggle for modern archaeologists, as valuable data has been lost one way or another. At Corni Freschi the continual and long term movement of water has washed away or destroyed any evidence of human interaction with the site.⁹¹ Meanwhile, Cemmo’s very early “discovery” and the subsequent fascination with the site has led to poorly managed and/or badly carried out archaeological digs leading to a loss of additional vital contextual information.⁹² The Alpine sanctuary sites on the other hand

⁸³ FEDELE 2008, 63.

⁸⁴ FEDELE 2008, 63.

⁸⁵ POGGIANI KELLER 2022, 355.

⁸⁶ FEDELE 2008, 65.

⁸⁷ FEDELE 2008, 64.

⁸⁸ *Ibid.*

⁸⁹ These of course are my own personal feelings, but I do feel they are worth mentioning. The feeling of awe and groundedness you get from being at Cemmo is something transcends time, especially early in the morning.

⁹⁰ POGGIANI KELLER 2006, 56.

⁹¹ POGGIANI KELLER 2006, 58.

⁹² TARANTINI 2018, 115.

are often incredibly well preserved and can offer a lot of information that may be lost at the lower Valley sites.

Besides different levels of information to be gleaned, there are a few other differences between Valley sanctuaries and Alpine sanctuaries. Both Ossimo-Pat and Ossimo-Anvoia primarily have the Statue-Menhir form of monoliths on site, monumental structures built in the Copper Age in the form of mounds and cairns, and a much more significant amount of human remains than either Cemmo or Corni Freschi.⁹³ As for the Lower Valley sites besides the boulders and sheer rock walls, they both had a water feature during the Copper Age, more specifically in the form of a wetlands/swamp. Cemmo had a shallow ephemeral pond that created a swampy area in the center of the meadow the site now sits in,⁹⁴ while Corni Freschi is located along the River Oglio, which created a small pool nearby and a wetlands environment around the boulder.⁹⁵

The Copper Age megalithic sanctuary sites of Valcamonica (and to a lesser extent, Valtellina) show a rich tapestry of interconnected ideas, iconography, sense of place and ritual. Together in combination with the grave sites of the Pre Alps, the creation of a spiritual landscape becomes clearer. Sites and lone monoliths fall along prehistoric trade routes and trails, physically identifying the paths people walked through the valley.⁹⁶ The Copper Age creation of these more cohesive and identifiable structures make visual the reciprocal nature of life at the time. The shape and composition of the land guided human actions and interventions, in the same way that clearing land and building megalithic sites created Valcamonica as it is known today.

2.5 Massi di Cemmo: a Sanctuary for Generations

While in its most recent life as *Parco Archeologico Nazionale di Massi di Cemmo*, the Cemmo boulders and the sanctuary that surrounds them have been preserved for the sake of education, this cultic place is significantly older. This megalithic site has evolved, changing very slowly while it watches out over the southern half of Valcamonica.

2.5.a The Foundation

While it is widely accepted that Cemmo was founded as a Copper Age sanctuary, that may not necessarily be the case. In the hours spent reading and rereading newsletters about the excavations at Cemmo, evidence discovered may be able to push the foundation of the site as a sanctuary back to the Mesolithic. In the article, “Capo di Ponte (BS) Localita Cemmo, Pian delle Greppe: Lo Scavo del santuario megalitico dell'età del Rame e sue

⁹³ POGGIANI KELLER 2006, 58-9.

⁹⁴ POGGIANI KELLER 2006, 256.

⁹⁵ POGGIANI KELLER 2002b, 41.

⁹⁶ POGGIANI KELLER 2006, 246.

preesistenze e persistenze” of the 2010-2011 *Soprintendenza per Beni Archeologici della Lombardia Notiziario (NSAL)*, Dr. Poggiani Keller writes,

“La prima frequentazione dell’area risale al Mesolitico antico di cui si è rinvenuto un livello di calpestio (US 300) con buche contenenti lastre litiche infitte verticalmente e strumenti microlitici.”⁹⁷ [*Translation: The area was first inhabited during the Early Mesolithic, when a trampled layer (SU 300) was discovered with pits containing vertically embedded stone slabs and microlithic tools.*]

One should pay attention to the phrase, “buche contenenti lastre litiche infitte verticalmente” [*with pits containing vertically embedded stone slabs*] as it implies a level of rituality at the site significantly before the Copper Age foundation date. This process of vertically embedding stone slabs is reminiscent of the stelae that would be placed in the site during the third millennium. The only additional place in which these stone slabs are mentioned is on sign 4 at the park itself, though it does not describe them as “vertically embedded.” As of right now (December 2025), the two off handed sentences are the only mention of these Mesolithic stone slabs, so nothing can be said conclusively, though this idea merits further exploration and intervention. What can be stated definitively is that there is evidence of lithic tool production and retouching, including hyper-microlithic pieces, all of which were of a Sauveterrian facies style, dated to between 9,000 and 7,500 BCE.⁹⁸

After the Mesolithic phase of this site, there is evidence that a “sunken oval-shaped structure (316 m) was built along the southern flank of Cemmo 1.”⁹⁹ Finds from inside of the structure entailed ceramic fragments with incisions and notches which seem to match the typology of the third phase of the VBQ culture.¹⁰⁰ This with the help of stratigraphy, dates the finds to approximately 4,500 to 3,800 BCE, or the late Neolithic in Northern Italy.¹⁰¹

As stated at the beginning of this section, it is widely accepted that the sanctuary site of Massi di Cemmo has its foundations in the Early Copper age, during the first half of the 4th millennium, or about 3600 BCE.¹⁰² This is evidenced by a familiar feature seen at other Copper Aged sanctuary sites, plow marks.¹⁰³ In the case of Cemmo, there were three clearly plowed furrows, which demarcated the space in front of the fallen boulders as separate from the rest of Pian de Greppe.¹⁰⁴ Ritualistic plowing in this manner is considered as a way to mark a location as sacred by scholars today and is seen in Copper Age sites outside of Valcamonica, such as Valle d’Aosta where it was used liberally at the Megalithic Area in Aosta as a form of sanctification.¹⁰⁵ Though a simple action, the creation of the furrows were the starting point of the very long life of the sanctuary at Cemmo.

⁹⁷ POGGIANI KELLER 2013, 119.

⁹⁸ MARTINI *et al.* 2016b, 90.

⁹⁹ POGGIANI KELLER 2013, 119

¹⁰⁰ *Ibid.*

¹⁰¹ PESSINA, TINÉ 2008.

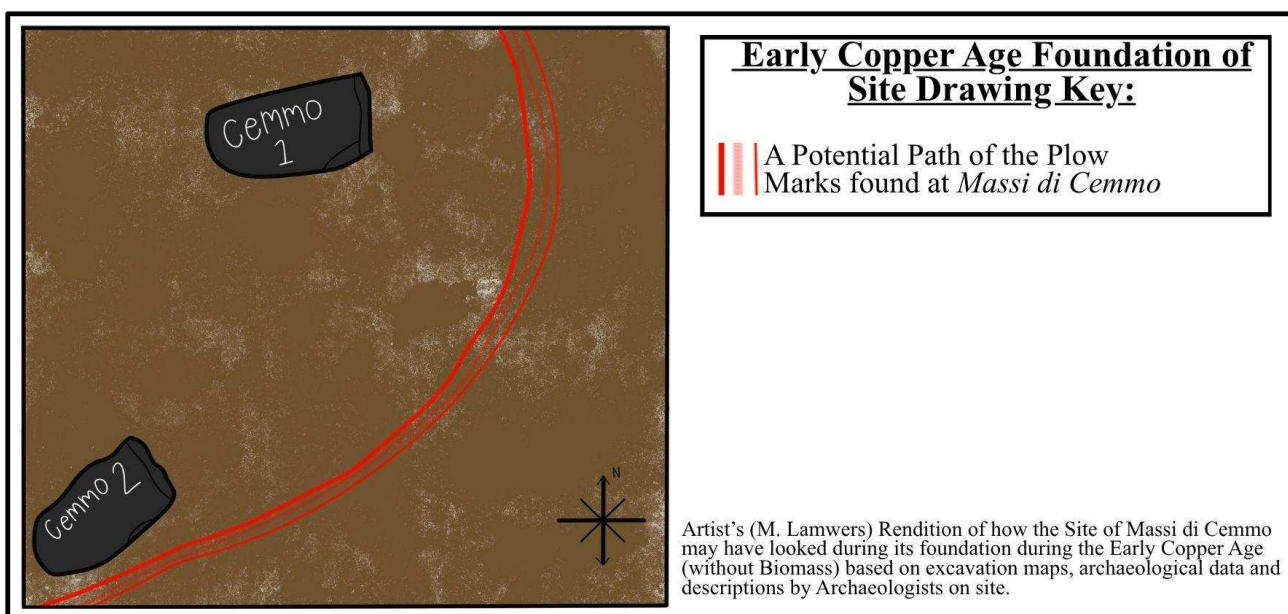
¹⁰² POGGIANI KELLER, RONDINI 2021, 6.

¹⁰³ POGGIANI KELLER 2009, 49.

¹⁰⁴ *Ibid.*

¹⁰⁵ CURDY *et al.* 2022, 149.

In addition to the written information below there will also be drawings of what *Massi di Cemmo* may have looked like during important chronological periods of its life. These drawings were made using a combination of site maps,¹⁰⁶ photographs taken from different phases of excavation, the written reports of *NSAL*, as well as other excavation notes prior to 1981's first publication of the *Notiziario*. Due to the hybrid and imperfect nature of the source materials, the drawings were made with a lot of creative interpretation based on scientific documentation. This is to say that the drawings are by no means absolutely correct, and as a result one will see the use of “Potential,” “Idealized,” “Proposed,” and other such words used in each drawings’ key which imply a hypothetical.¹⁰⁷ An example of the hypothetical nature of the drawings is the placement of the Plow Marks during the foundation of *Massi di Cemmo*. According to the 2007 edition of *NSAL*, “the area in front of the boulders was marked by three semicircular plowed furrows,” then remarks that the later construction of the Late Bronze age wall’s “semicircular shape traces the three previous plowing furrows.”¹⁰⁸ In addition to these remarks, there is an excavation photo that was published multiple times that shows the furrows,¹⁰⁹ which offered a greater understanding of their depth, width, and relationship to one another allowing for the artist to extrapolate this information on a larger scale in the drawing. This in conjunction with site maps and the knowledge that the Bronze age wall followed a similar path to the furrows, an extremely basic and hypothetical map-like drawing could be made, which can be seen below.¹¹⁰



¹⁰⁶ Specifically, those found in (POGGIANI KELLER, RONDINI 2021, 9.) and (POGGIANI KELLER 2000, 35.)

¹⁰⁷ These drawings were made to cut through some of the technical language and map hypotheticals to help with my own understanding of what the site may have looked like.

¹⁰⁸ POGGIANI KELLER 2009, 49.

¹⁰⁹ POGGIANI KELLER 2006, 259. Has the clearest iteration of the photograph that I have found so far.

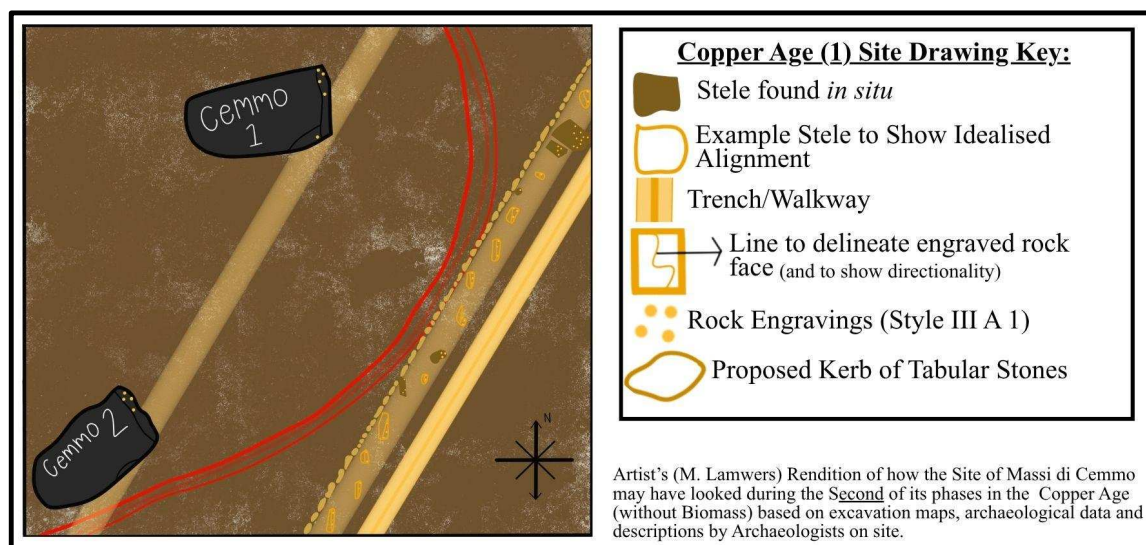
¹¹⁰ For greater detail on this process take a look at Appendix A.

2.5.b Cemmo's Significant Lifespan

By the Early Bronze age, Massi di Cemmo had already been frequented by humans for, at the longest, 5,400 years, but this was only the beginning. During the Northern Italian Copper Age, from around 3,600 BCE to 2,200 BCE, the site went through at least four phases of development. This was determined by the stratigraphy of the site, as well as typology and overlap of rock engravings on Cemmo 1 and 2, as well as the Stelae that were found at the site during the 1980s, late 1990s and early 2000s. The iconographic sequence of the engravings found at Massi di Cemmo was defined as early as 1967 by Emmanuel Anati,¹¹¹ but most clearly and specifically by Raffaele De Marinis in 1994.¹¹² Each phase of the Copper Age development of Cemmo is marked by a stylistic change in rock art at the site, which will be explored sequentially below.¹¹³

The first marked change to the landscape of Cemmo after the addition of the plow marks came during the first phase of major Copper Age development. This included the following transformations:¹¹⁴

- The engraving of the boulders located on site, which became known as “Cemmo 1” and “Cemmo 2.”



- The construction of a Northeast-Southwest alignment of stelae, whose carved primary ‘faces’ pointed eastward, that ran parallel to the carved faces of Cemmo 1 and 2 (as denoted by the parallel and opaque yellow lines).

¹¹¹ ANATI 1967, 71.

¹¹² DE MARINIS 1994, 85-6.

¹¹³ The use of (1)/(2)/(3)/(4) demarcates the change in phases of the site, not necessarily the actual timeline of the Copper Age in Northern Italy as laid out in various resources, but specifically “The sanctuary of Cemmo: a tale of two monuments.”

¹¹⁴ POGGIANI KELLER 2002a, 34-9.

- The deliberate creation of a Trench or ditch parallel to and on the east side of the stela alignment (its purpose is currently unknown but has been speculated to have been a walkway).
- The creation of a kerb of medium to small sized tabular stones on the western side of the stela alignment, once again parallel to the other structures that make up the first phase of sanctuary development.

This first period was demarcated by rock engravings of the Style IIIA 1 type. Style IIIA 1 is the anthropomorphic phase of rock art in both Valcamonica and Valtellina, meaning that archaeologists most commonly find Armed Stele (T1) and Adorned Stele (T2) at sites that match this period.¹¹⁵ In the case of Armed Stelae, this entails weaponry/tools such as, Remedello type daggers with crescent shaped pommels (sometimes carved with sheaths), Laurel leaf shaped halberds, polished stone axes of the Fornovo type and/or trapezoidal axes that line up with copper axes of the Remedello type.¹¹⁶ The Armed stelae of Cemmo have also been known to have been carved with figures of animals of both identifiable (in the case of deer) and unidentifiable (in the case of the ‘tapir’¹¹⁷ or ‘Canid animals’¹¹⁸) species.¹¹⁹ Adorned Stelae on the other hand are often smaller, and in the case of Valcamonica are engraved with T-shaped faces, as well as concentric circular designs which could be amulets, and curved U-shaped strands grouped together which could represent a necklace or woven item.¹²⁰ This is made more likely by the fact that in one of the Cenotaphs at Ossimo-Pat there was found both a copper piece similar in shape to the concentric circle design as well as a six stranded beaded necklace.¹²¹ It is also important to note that though the Armed stelae changed significantly throughout the copper age, Adorned stelae were not usually recarved, except in the rare cases in which a stele changed from Adorned to Armed or swapped the other way around.¹²² This rare swap is only recorded on 4% of all currently discovered stelae at Cemmo, making the purpose of this change significant, but leaving the reason why unknown.¹²³

From this phase forward, Cemmo 11/19 and Cemmo 17 will be explored in more detail to show the change in stylistic phase as there in depth analysis looking at this specific point done by Raffaella Poggiani Keller and Paolo Rondini in 2021, in an article called “The Sanctuary of Cemmo: a tale of two monuments.”¹²⁴ This piece clearly demonstrates the phases of engraving through the copper age, into the early bronze age, in both visual and written form, but it must be highlighted that it only follows two monuments. While the article is very useful to help show general trends by comparing Cemmo 11/19 and 17, its purpose is to specifically focus on these two monuments. Each monument beyond those covered in the article has a very specific lifespan and that not all monuments follow the exact same changes

¹¹⁵ CASINI 2015, 96-101.

¹¹⁶ CASINI 2015, 96-8.

¹¹⁷ DE MARINIS 1984, 10-2.

¹¹⁸ ANATI 1967, 31.

¹¹⁹ CASINI 2015, 106.

¹²⁰ CASINI 2015, 98-101.

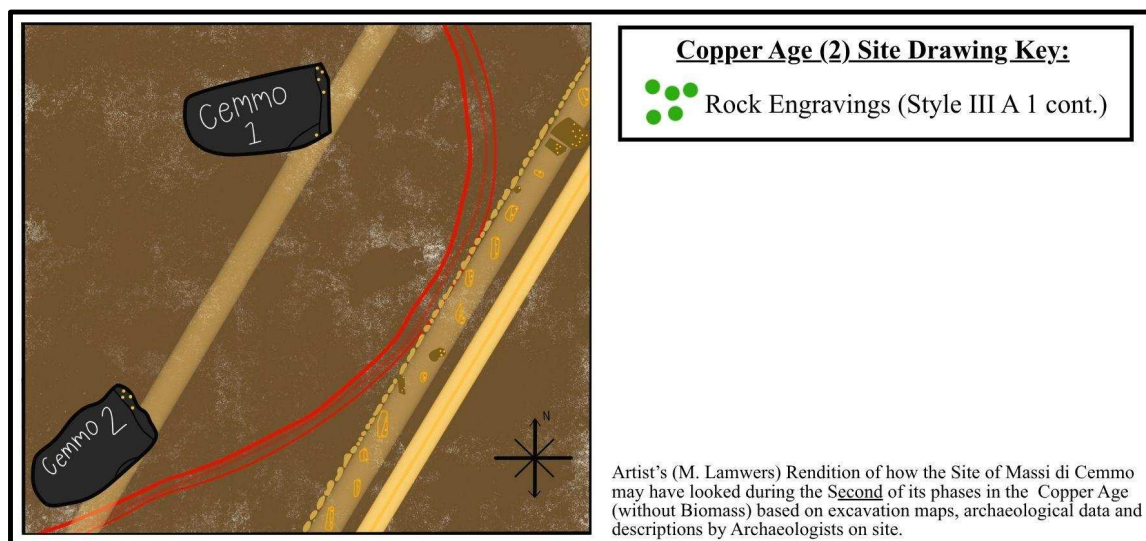
¹²¹ POGGIANI KELLER 2017, 48-9.

¹²² RONDINI, MARRETTA 2026, 13.

¹²³ *Ibid.*

¹²⁴ POGGIANI KELLER, RONDINI 2021.

over time¹²⁵. Due to this individuality, generalizations are just that, generalizations, and cannot account for the specifics of all steles found on site.



The Second phase of the Copper Age is marked by the continuation of rock engraving on both Cemmo 1 and 2, as well as the alignment of Stelae. The beginning of this phase showed a continuation of previous anthropomorphic idealizations and therefore cultural continuity, with the introduction of new humanizing designs specifically for Armed Stelae. These include:

- Fringed rectangles (only in the case of ‘Cemmo 20,’ though it happens far more frequently at Alpine sanctuaries like that of Ossimo-Pat)¹²⁶
- ‘Sun-Heads,’ or sun shaped designs placed at the top of monuments (this appears on both Cemmo 1 and Cemmo 11/19)¹²⁷
- Ciempozuelos type daggers dated to the Bell-Beaker period (2,500-2,200 BCE)¹²⁸
- Villafranca/Gambara type halberds with triangle shaped blades, also dated to the Bell-Beaker period¹²⁹
- Shaft-Hole Axes have also been found engraved during this period, but only on the Ossimo plateau and are identified by their flat-top edge and rounded heel.¹³⁰

Later in this period there was a marked change in the design and perhaps a cultural division. Moving away from the previous anthropomorphic style to a more symbolic style

¹²⁵ RONDINI, MARRETTA 2026, 14.

¹²⁶ CASINI 2015, 103.

¹²⁷ POGGIANI KELLER, RONDINI 2021, 19-20.

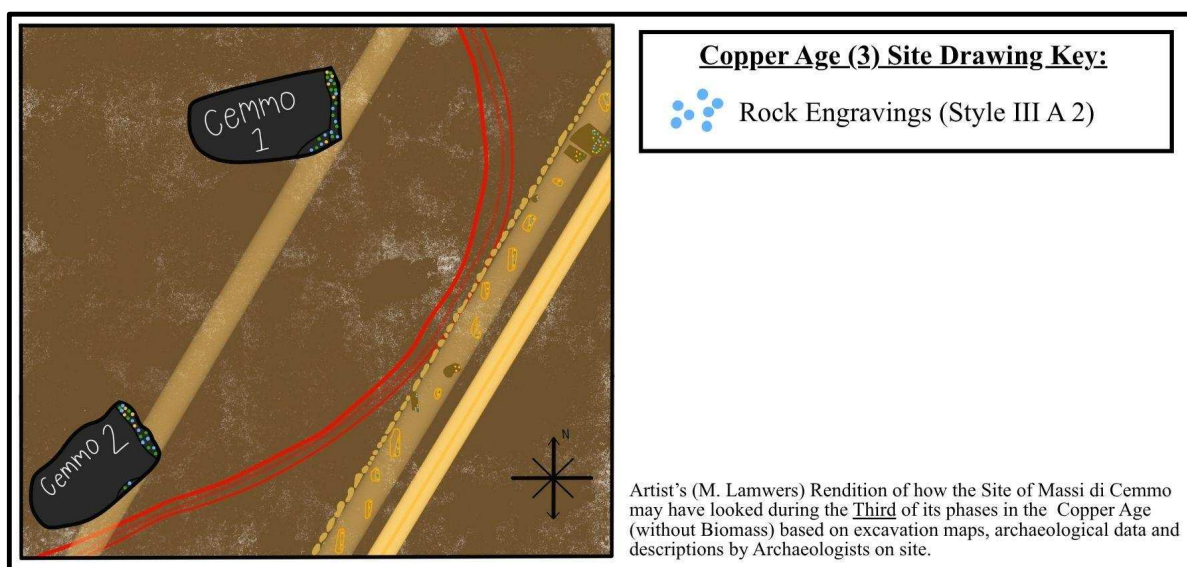
¹²⁸ CASINI 2015, 103.

¹²⁹ CASINI 2015, 105.

¹³⁰ *Ibid.*

that seems to have a close relationship with the Sun and the Earth.¹³¹ This is demonstrated by a lack of carving of individual weapons, as well as an introduction of human figures, usually in pairs or triads, the tallest of which is shown to have a solar connection. It is at this point that another specific human figure appears, that of the plow person. This figure is standing behind a plow pulled by two bovines (it appears on Cemmo 2, Cemmo 17, Cemmo 11/19 and other stelae beyond the Cemmo Sanctuary) and is closer to the base of the monuments, implying a direct link to the ground or perhaps the ground level at the time of carving.¹³² The final introduction in this period is more naturalistic animals with a greater variety of species. Scholars have found wild animals in the form of “deers, chamois, ibexes, wolves and foxes, boars, and a unique bird (on Cemmo 20),” and dogs as the only domesticated animal.¹³³ This phase of engraving also includes unidentifiable animals such as ‘tail-less Ruminants,’ ‘canids,’ on Cemmo 2,¹³⁴ and creatures hypothesized to be of the pheasant family on Cemmo 11/19.¹³⁵

What can be inferred from the change in rock engravings from this period is that a cultural change was taking place in Valcamonica. Scholarly interpretations suggest a change from stelae/statue-menhirs identifying with a singular entity to something closer to a community or collective production.¹³⁶ This ideology will change and evolve, but will seemingly not lose its ancestral worship characteristics, as will be explored in the next two phases.



¹³¹ POGGIANI KELLER, RONDINI 2021, 14.

¹³² *Ibid.*

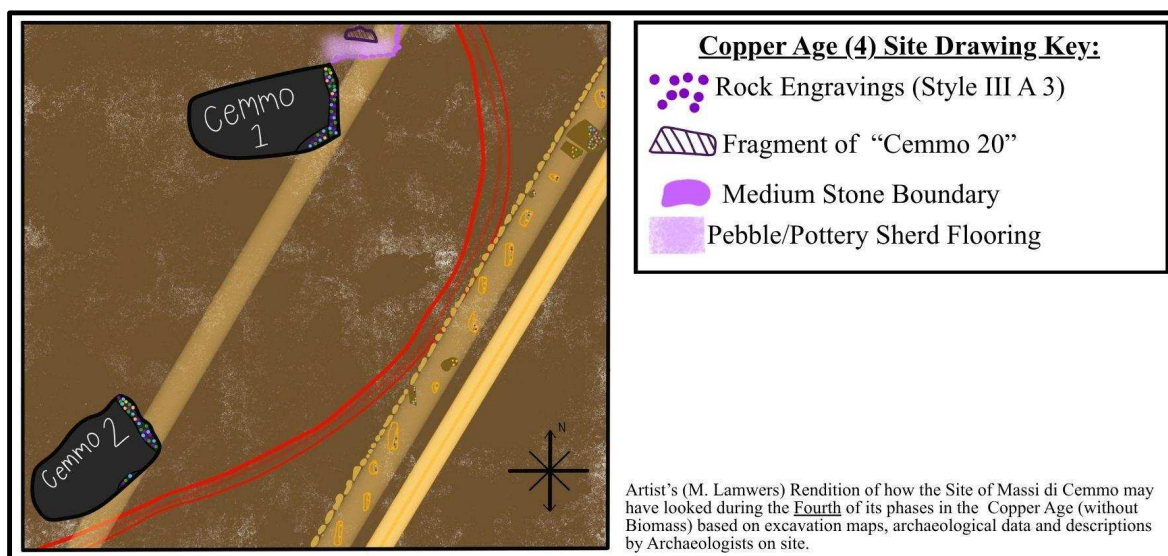
¹³³ CASINI 2015, 106.

¹³⁴ ANATI 1967, 52.

¹³⁵ POGGIANI KELLER, RONDINI 2021, 20.

¹³⁶ LEONARDI 2012, 44.

The third phase of Copper Age changes made to the site of Massi di Cemmo was very similar to the previous one.¹³⁷ This entailed more engravings and a gradual change in style from III A2 to III A3. As previously mentioned, engravers of this period were moving towards a much less organized and far more animal oriented artistic trend. This is not to say that human figures did not exist, but there were significantly less in comparison to animals and they were seemingly less spatially organized, but more detailed as they had fingers and more proportionally correct bodies.¹³⁸ In the case of animals (mostly deer, or deer like animals), their organization no longer shows deference to the location of the sun, thereby identifying a gradual but distinct cultural shift away from a singular figure/focus of a monument to something new and more collective as previously discussed.



The fourth phase of the sanctuary at Cemmo is during the Late Copper Age and Early Bronze Age, or from somewhere between 2,200-2,000 BCE. There were three significant changes during this period, one small and one large. On the smaller end of the scale, there is the final stage of engravings at the site, which is completely different from what had been there previously. This stage of engravings is highly interesting because there are fewer examples, the most important one being “Borno 5,” making their divergent style more interesting.¹³⁹ What makes these engravings different is that there are now:

- New organizational boundaries, as marked by a horizontal line with spikes pointed towards the top of the monument that completely ignore previous boundaries (such as a ‘sun-head’), above which nothing is carved.¹⁴⁰

¹³⁷ I chose to still include it because I think it really identifies and embodies this moment of change in the life of the site, where it went from a community effort with an anthropomorphic focus to something that speaks to a more generalized conceptualization of the time period, shifts in interpersonal relationships and the interconnectedness of the valley. Of course there will be exceptions, like the human remains that appear in Phase 4, but I still think it is worth noting and exploring when looking at the lifetime of Cemmo holistically.

¹³⁸ POGGIANI KELLER, RONDINI 2021, 21-2.

¹³⁹ DE MARINIS 1994, 85.

¹⁴⁰ POGGIANI KELLER, RONDINI 2021, 21.

- Highly organized and sexless human figures with triangular bodies, and arms outstretched in an approximation of hand-holding or throwing an arm over each others' shoulder.
- Figures are evenly spaced and seem to be spatially regulated by dots in between figures' heads and torsos, creating a pattern.
- Unfinished figures demarcated by lines of spacing dots and head dots that could imply a rushed end to this phase.¹⁴¹

As one can see, this is a pretty dramatic shift away from randomly organized animal figures and more detailed anthropomorphs. It can be argued that this in turn shows a shift in societal values towards something more communalistic, though there is currently too little evidence to say anything definitive.

On the opposite side of the spectrum, this period is when the first and only deposition of human bone in the site (that is currently known of), an action that can be seen as deeply personal.¹⁴² Archaeologists found a single 'battered'¹⁴³ fragment of human skull to the north of Cemmo 1, in a specially sanctified area.¹⁴⁴ The skull piece was placed deliberately in front of 'Cemmo 20,' a piece of a larger boulder that had been seemingly placed in that location for the purpose of being directly related to the bone. Evidence in the form of a "pin with a small oval leaf head from the Rudelnadeln family and a basket-shaped earring in copper foil..."¹⁴⁵ both pieces from the Early Bronze Age, identifying that Cemmo 20 must have been moved beforehand in the late 3rd millennium.¹⁴⁶

¹⁴¹ *Ibid.*

¹⁴² POGGIANI KELLER 2013, 119-121.

¹⁴³ In all sources mentioning this bone it is referred to as battered with no further description and as of now (December 2025) I have been unable to find a picture of it.

¹⁴⁴ POGGIANI KELLER 2013, 119-121.

¹⁴⁵ POGGIANI KELLER 2013, 119-121.

¹⁴⁶ *Ibid.*



S2.I3 Photograph of ‘Cemmo 20’ and the small sanctified space in front of it.

This space was further separated from the rest of the sanctuary by a row of medium sized stones that isolated a small area of carefully created pebble and pottery sherd flooring.¹⁴⁷ The pottery found mixed with the pebbles were found to be, “body sherds of vessels decorated with smooth beading and knobs.”¹⁴⁸ This could imply that the sherds found were similar to those found in a cultic context at Ossimo-Pat which were described as having “scale”¹⁴⁹ structures that appear similar to the “knobs” mentioned previously.

This Late Copper Age addition is something seen at other sanctuary sites such as Ossimo-Anvoia, a Copper Age Alpine sanctuary discussed in the previous section. In both cases, this shows a personalization of community cultural sites, which may hint at the development of a more distinct form of ancestral worship, with human bone acting as a relic and Cemmo 20 acting as ‘effigy relic’.¹⁵⁰ The ‘battered’ and singular nature of the bone may suggest repeated depositions at multiple locations, something that was previously discussed, that may suggest a different form of communal relation through a real or amalgamatory

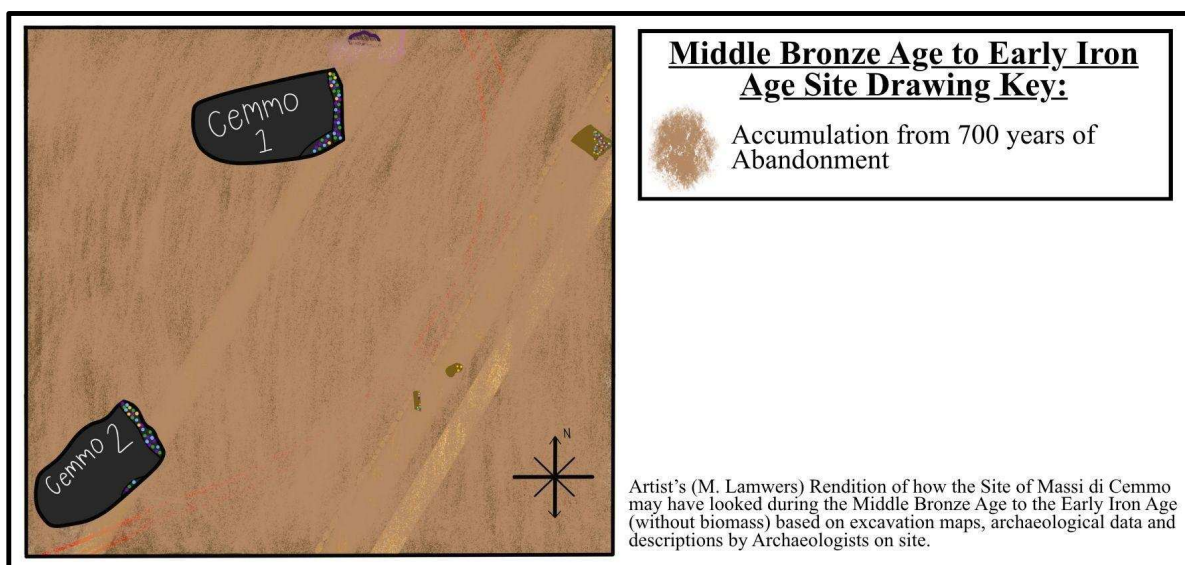
¹⁴⁷ *Ibid.*

¹⁴⁸ BAIONI, POGGIANI KELLER 2014, 97.

¹⁴⁹ POGGIANI KELLER, BAIONI 2022, 258-9.

¹⁵⁰ FEDELE 2008, 71.

ancestor that idealized some specific value.¹⁵¹ The relationship of the bone with the piece of engraved rock also highlights another form of community connection, that between what people considered sacred and the landscape in which their beliefs were shaped. If one views the association of two artifacts through this lens, they can see how Cemmo as a place has expanded its influence through human intervention and the precise manifestation of human technology (in the form of plow carvings and furrows) as well as the human remains which were moved to be placed specifically at that site. This specific action emphasizes how people and place shaped each other creating deep ties throughout the Copper Age and into the Early Bronze Age, one that was about to be interrupted.



The next phase of life for the sanctuary at Cemmo is a lonely one. For reasons unknown to us today, the site was seemingly abandoned during most of the Bronze Age, or about the whole second millennium BCE.¹⁵² This period is marked by the accumulation of soil through the movement of water, and by the loss of context of the site for the people in the area. Due to this loss, the next phase will look very different than all those before it.

¹⁵¹ *Ibid.*

¹⁵² POGGIANI KELLER 2009, 49-51.



The Late Bronze Age/Early Iron Age was a period of rediscovery and re sanctification. Big changes were made to the structure and layout of the sanctuary in this time period, they included:

- The building of a monumental wall 2.5m wide at the base in a u-shape surrounding Cemmo 1 and 2 using pieces of ‘new’ stone, but also Copper Age Stelae, both broken and fully formed.¹⁵³ Fully formed stelae were put engraving side down at the base of the wall, including Cemmo 17, which scholars believe was used as a way to re sanctify the space without completely disassembling the old site.¹⁵⁴
- Stelae not in use as part of the site at the time were covered carefully with pebbles before being built into the wall (in the cases of Cemmo 26, 24, 16 and 25), which were then radiocarbon dated to “2870 ± 50 BP, calibrated 1220 (95.4%) – 910 BC (SU 396).”¹⁵⁵

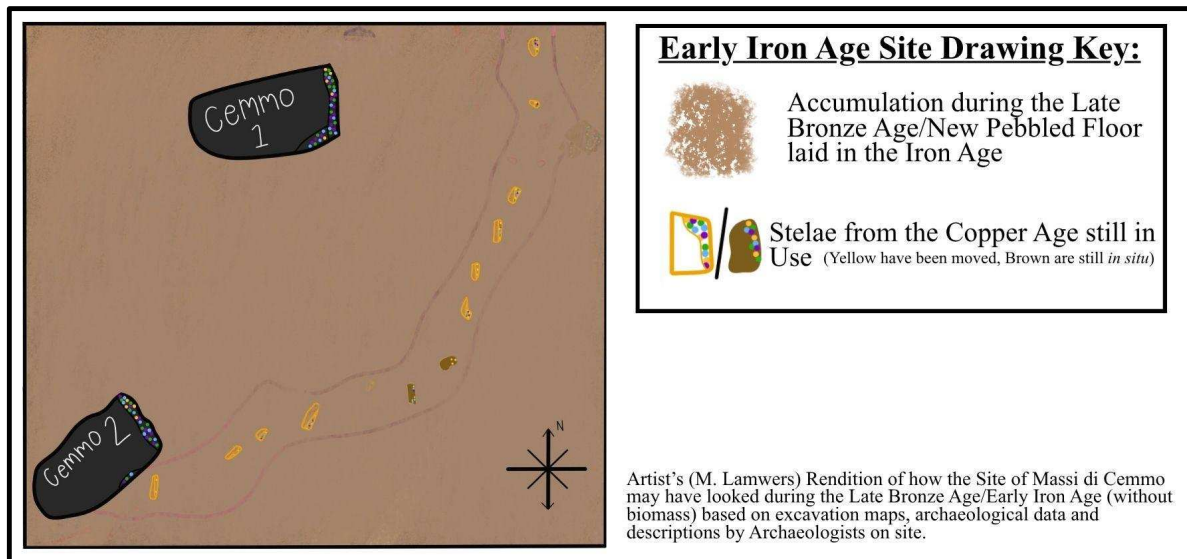
From this point forwards, there will not be any recarving of monuments carved in the Copper Age, and most of the changes to the site will be adding structural elements or moving stelae to new or different locations within the sanctuary.

The drawing above identifies an intervening phase, between the beginning of the Iron Age and the middle/late Iron Age, which was marked by more accumulation of soil and more importantly as part of the next phase of sanctuary updates, the floor within the

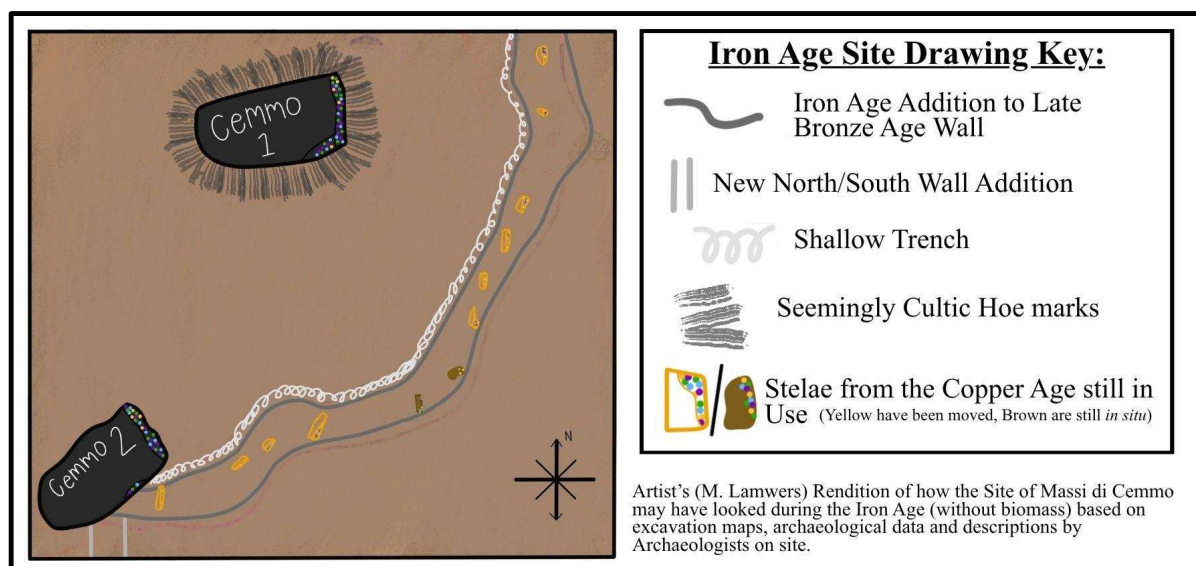
¹⁵³ POGGIANI KELLER 2009, 49-51.

¹⁵⁴ BAIONI, POGGIANI KELLER 2014, 98.

¹⁵⁵ *Ibid.*



sanctuary wall was leveled with gravel.¹⁵⁶ This allowed for more visible modifications to the site that are visible during the next period of Cemmo's long life.



During the later phases of the Iron age (as identified by pottery finds), major structural and ritual changes were made to the site.¹⁵⁷ During excavations, archaeologists found evidence of:

- Additional work was done to the Late Bronze Age wall, extending it as well as adding more height.¹⁵⁸
- A new north/south wall was built from Cemmo 2, extending southward towards where there was major work happening in the form of terracing on the southern part

¹⁵⁶ POGGIANI KELLER 2009, 49-51.

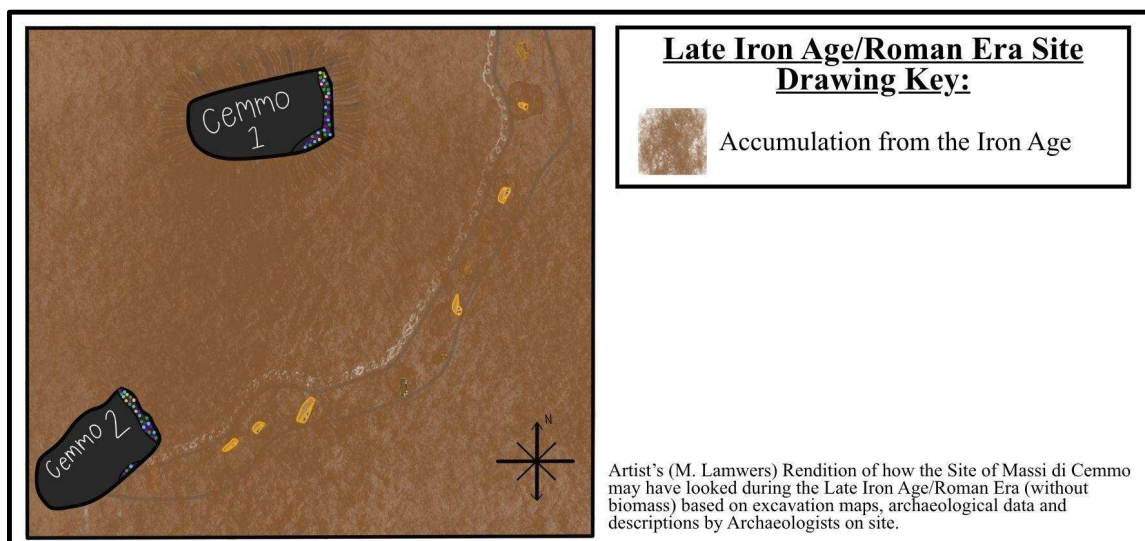
¹⁵⁷ POGGIANI KELLER 1995, 23-5.

¹⁵⁸ POGGIANI KELLER 2017, 32.

of Pian delle Greppe.¹⁵⁹ During a 1995 excavation, what appeared to be an additional north/south megalithic alignment (of medium sized stones) leading towards Cemmo 1 and 2 was found south of the main sanctuary.¹⁶⁰ After careful consideration, this discovery seems to be more related to the settlement and terracing in the more immediate vicinity than to the sanctuary itself.¹⁶¹

- A shallow trench/canal was dug very close to the wall on the western side, reminiscent of the Copper Age trench dug on the eastern side of the alignment of stelae.^{162 163}
- A shallow circle was dug around Cemmo 1 and then seemingly ritually hoed, creating furrow-like displacements of soil encircling the boulder.

These changes show a true revival of the site as a sacred space, one that had expanded and formed new ritual practices, distinct but connected to previous sacred activities at Cemmo. It also highlights the site's continued importance as a landmark and community gathering place for people, due to its distinctive boulders and large scale (for the time) terraforming of the area south of the sanctuary to make it a more suitable place for agricultural activity.¹⁶⁴ The evolving nature of the site demonstrates a deep connection to the past and an investment into the future of the communities of the area, once again underlining the communal nature of Cemmo as a perpetual sanctuary site.



The pattern of usage during the Late Iron Age (approximately 300 BCE), led to gradual accumulation in the site creating a brand new layer for people during the Roman period to leave their mark on.

¹⁵⁹ *Ibid.*

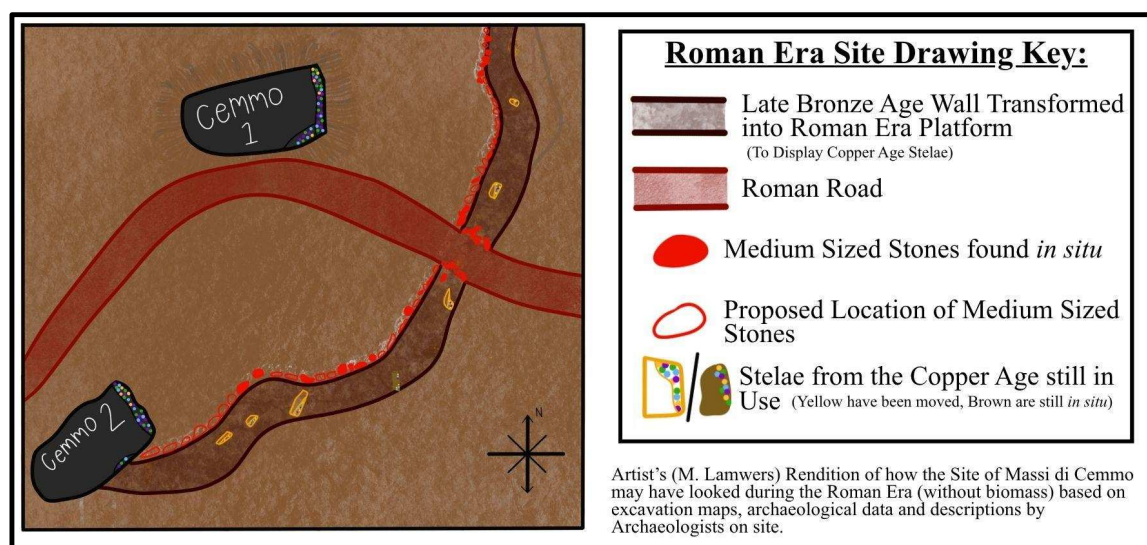
¹⁶⁰ POGGIANI KELLER 1995, 23-5.

¹⁶¹ More digs would have to be done to be absolutely certain there is no relationship, it was pertinent to add this additional information in the event it does become relevant.

¹⁶² POGGIANI KELLER 2009a, 214.

¹⁶³ This new addition could be similar to that of its copper age counterpart, i.e. as a walkway/path to admire/interact with the carved portion of the stelae, but unfortunately, we are not sure exactly what direction the stelae placed in the wall would have been facing at the time.

¹⁶⁴ POGGIANI KELLER 2009a, 49-51.



Cemmo was no longer a truly sacred site during the Roman era. Changes in lifeways in Valcamonica had created a new use for the ancient site, one that paid homage to the past and integrated the present. The Late Bronze Age wall that had been transformed during the Iron age, had over time become just a small platform, barely above the ground but still displaying the Copper Age Stelae.¹⁶⁵ During the Roman Era, the platform was split into two strips, creating a gap centered between Cemmo 1 and 2, to make way for a path.¹⁶⁶ This path descended from above the site by the sheer rock wall, to pass behind Cemmo 2 and near Cemmo 1 before exiting in the previously mentioned gap.¹⁶⁷

In doing research for this project, there were no sources specifically discussing the location of the Roman road in relation to the sanctuary at Cemmo, so its location could only be pieced together using archaeological information. This included amalgamating specific pieces of evidence from excavation maps, and reports in an attempt to correctly figure out the location of the road, and eventually the image above identifies the decided upon position. There were three very different types of information that were eventually used to support this claim. Firstly the continued use of a mule track where the road would have been near the cliff, that was used beyond antiquity and therefore documented more thoroughly.¹⁶⁸ Secondly the existence of cart tracks from the Roman era that come from behind Cemmo 2, and passes along Cemmo 1 before heading east.¹⁶⁹ The final piece of evidence used was the mention of “an interruption in the central section, was closed on the internal side by a curb of larger stones, well embedded in the ground.”¹⁷⁰ It was along a layer that was known to be that of the Bronze Age Wall, and could be cross referenced it with a drawing of the excavation, where a tight line of slightly larger rocks that created a kerb along the inside edge of the wall,

¹⁶⁵ POGGIANI KELLER 2000, 34-8.

¹⁶⁶ POGGIANI KELLER 2000, 34-8.

¹⁶⁷ *Ibid.*

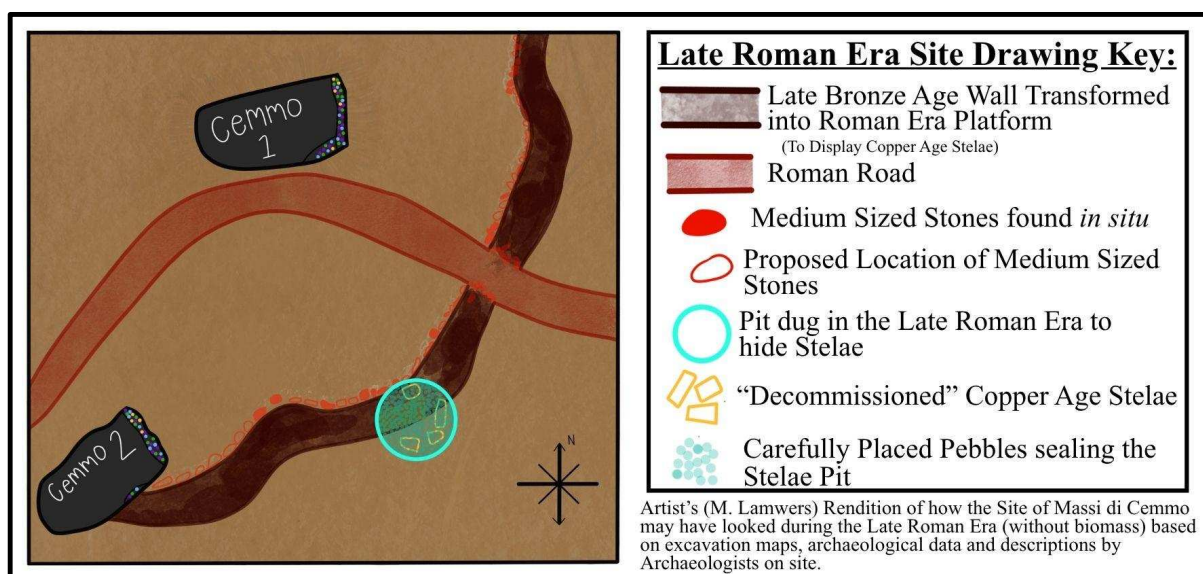
¹⁶⁸ POGGIANI KELLER 1995, 23-5.

¹⁶⁹ POGGIANI KELLER 2009a, 49-51.

¹⁷⁰ POGGIANI KELLER 2000, 34-8.

as well as lining the edges of the gap that appeared in the center of the wall.¹⁷¹ The matching size and continuation of the pattern seen along the inside edge of the wall led this researcher to believe that they were related and therefore placed in similar periods, thereby identifying the gap as a where the Roman road would have exited the sanctuary space to head east. After putting these various facts together, a drawing of the site was created to help enunciate the discussed placement. This is by no means definitive, but using the resources available currently, this location seems to be a well reasoned guess on the placement of the ‘Roman road’ located inside of the Cemmo sanctuary.¹⁷²

The Early Roman period was the last time in which Cemmo looked even close to the sanctuary it once was. Times had changed and so had demographics, with the Roman conquest of Italy came new ideas and cultural understandings that were flexible at the beginning but hardened over time. By the end of the Roman Period and the beginning of the Early Medieval period in Northern Italy, cultic relationships between people and the land were no longer viable. Christianization had come and with it the death knell of Cemmo’s more than 2,000 year life as a sanctuary.¹⁷³



2.5c The Desanctification

With the introduction of Christianity to the valley, it became apparent that the worship of rocks or “the saxorum veneratio” would no longer be allowed.¹⁷⁴ To make this action more

¹⁷¹ POGGIANI KELLER 2000, 34-8.

¹⁷² It truly was a Mule track and not a highly engineered Roman Road as we see in other places in Italy, but to better help others identify time periods and the large changes to the site, this project has been using the term Roman Road when referring to it.

¹⁷³ POGGIANI KELLER 2017, 32.

¹⁷⁴ POGGIANI KELLER 2017, 32.

permanent, the cultic site of Cemmo was desanctified, though not by agents of the Roman state. It is clear that people local and familiar to the valley were made to do it by the manner in which the site was carefully disassembled. Multiple pits were dug along the outside of the former Late Bronze Age wall, where stelae were placed and then carefully covered with river pebbles to seal them in.¹⁷⁵ The most researched pit is the one found in March of 2000 “during the execution of a manual core sampling to collect samples for the paleoenvironmental study of the site,”¹⁷⁶ after which a more extensive excavation began finding several more stelae. The pit was dug at the base of Cemmo 9 as it was the largest stele to still be visible and therefore the hardest to move.¹⁷⁷ After the creation of the pit and the addition of Cemmo 9, from the bottom upwards came Cemmo 10, this Adorned stele was found upside down. Next Cemmo 8 was located at the top of the pit and was therefore buried last, its engraved side facing the sky. Finally Cemmo 6, an Adorned stele that seems to have had its entire engraved portion placed in the pit, and Cemmo 7, a small triangular stele, were found at the very top of the pit just below the agricultural layers.¹⁷⁸ This placement and layering of soil, as well as the final layers of river pebbles show a level of reverence for the site, one that probably would not have been respected by colonial officials sent to get rid of the sanctuary site. It is also important to point out that the site was not dug up and destroyed more than absolutely necessary but was cleared on a surface level and the engravings on the boulders of Cemmo 1 and 2 were allowed to continue to exist, instead of being defaced.¹⁷⁹

This desanctification did not stop the people of the valley from continuing their traditions, as official documentation of its continuation from the 4th to the 10th century.¹⁸⁰ It was at that point that the valley of Cemmo was reorganized and a Church was built nearby dedicated to San Siro, a known opposer of specifically pagan cults.¹⁸¹ This made it even more clear that the continued worship or practice of rock based cultic practices would no longer be welcome in Valcamonica. Despite the best efforts of the church and those in charge, the long history of profound connection between people and place could not be erased. It was kept alive in modern toponyms and cultural traditions with roots deep into the prehistoric past persisting well into the 20th century.¹⁸²

¹⁷⁵ POGGIANI KELLER 2009c, 214.

¹⁷⁶ POGGIANI KELLER 2000, 34-8.

¹⁷⁷ POGGIANI KELLER 2000, 34-8.

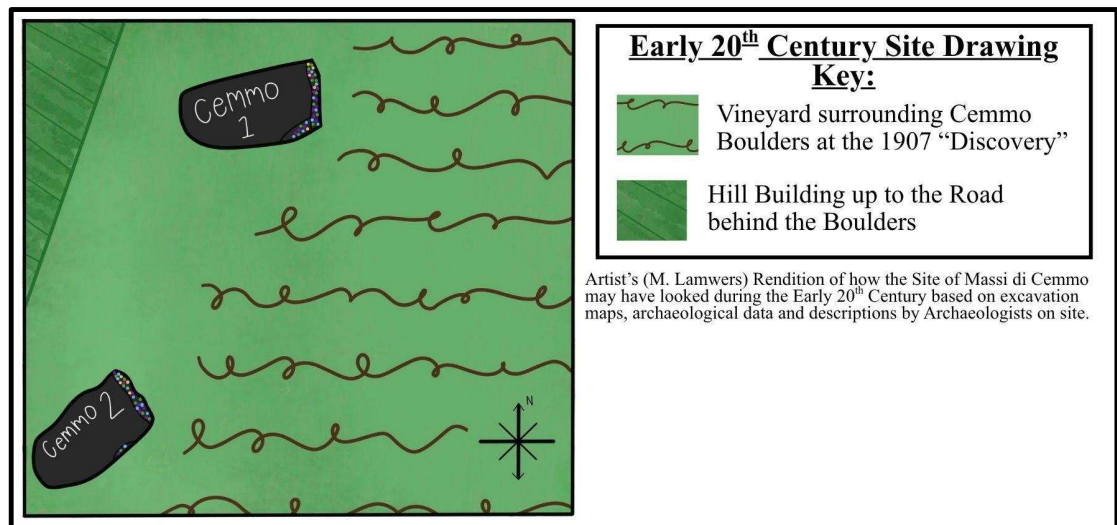
¹⁷⁸ *Ibid.*

¹⁷⁹ Visit Appendix A to see all of the drawings of *Massi di Cemmo* through time in Chronological Order

¹⁸⁰ POGGIANI KELLER 2009c, 214.

¹⁸¹ San Siro is traditionally associated with a strenuous opposition to pagan cults.

¹⁸² CHALCRAFT 2009, 139.



As time passed, the once extraordinary place created at Cemmo began to fade, its cultic memory forgotten¹⁸³ and its land reclaimed for agricultural use. The next chapter will explore this site's 'discovery' and its new life as a different form of sanctuary, but until then all that is left of this sacred place is two big rocks covered in 'doodles' surrounded by grape vines.¹⁸⁴

¹⁸³ Not truly though, as there was a communal memory of this place as something different, even if they thought the carvings at Cemmo were silly and juvenile. .

¹⁸⁴ Pitioti or puppets were what the boulders and their carvings were referred to by locals until scholarly intervention in the 20th century.

3.1 Before “Discovery”: Camuni Rock art, Local interpretations, and the 800 years following Cemmo’s Decommissioning

Just because something or someplace declines in public importance, does not mean that it is forgotten. Long lived and/or important places and traditions do not disappear from the physical and cultural landscape or from living memory, they evolve to become something new by carving out niches in humanity's ever evolving cultural lexicon. Massi di Cemmo and the rock art of Valcamonica are no different. After the Romanization of the Valley, and more importantly the Christianization, the cultic practices around rocks and the related Copper Age sites, lost much of their original meaning, but not all. Traces of this living legacy can be seen in place names and christianized traditions throughout Valcamonica.

Parco Nazionale delle incisioni Rupestri di Naquane, more colloquially known as Naquane is an example of the continuation of tradition through place names, “‘Naquane’ is probably related to the *Anguane*, female water spirits with an important cultural role in the Alps...”¹⁸⁵ This comparison is double apt when one considers that there is a robust natural spring leading to a well-managed pool located about 100m above and behind Rock 1 inside the national park, and that toponyms with ‘pagan’ contexts (like the *Anguane*) in Valcamonica, seem more likely to be areas with significant concentrations of Rock Art.¹⁸⁶ Another example that highlights the significance of this cultural memory is the yearly traditions in the area of Pat, close to the Copper Age Sanctuaries of the Ossimo Plateau, which occurred every spring from time immemorial to the 1950s. This ritualistic tradition involved the people of Ossimo processing up to a meadow called *Pre’de Mort* carrying votive and other offerings for the dead while praying for a good harvest.¹⁸⁷ As of the early 90s, elders would still go to the meadow to say a rosary in the small chapel built there, in hopes of gaining favour of the spirits that linger there.¹⁸⁸ Traditionally this *Meadow of the Dead* is said to have played host to a colony for the afflicted (with leprosy or the plague, those details are vague), as evidenced by stories and the buried remains of rectangular structures.¹⁸⁹ The prehistoric evidence of cultic activity perhaps relating to human remains (found at both the sanctuary sites of Ossimo-Pat and Ossimo-Anvòia), and the relatively recent local traditions

¹⁸⁵ CHALCRAFT 2009, 139.

¹⁸⁶ *Ibid.*

¹⁸⁷ ZERLA 1990, 177.

¹⁸⁸ I think that there is more to this idea than just praying to the dead. I believe that through thousands of years of use this area has been built into a mythic space, where people go not necessarily to pray specifically to the dead, but to them and something else (a spirit or concept that lives beyond even cultural memory) that may not have a name or a formal ‘existence’.

¹⁸⁹ ZERLA 1990, 177.

that also involve ritualistic activity linked to death, could be an example of how cultural memory carves out new niches to exist beyond its original intended use.

While the two examples above are very specific, more generally, rock art in the valley remained important, its function just changed over time. As scholars and other interested parties began to inquire about the rock art of the valley, it became very clear that the way the locals understood its importance was very different from their own. In the eyes of most of the People of the Valley today, there is no cultural or spiritual connection between themselves and the rock art or those who made it.¹⁹⁰ It does not play a traditional cultural role in their daily lives, which highlights the cultural/contextual difference between the People of the



S3.11 The Spring Fed Pond Located behind 'Rock 1' at Naquane in Early October
picture by Madeline Lamwers, October 2, 2025

Valley before and after Romanization and Christianization. Instead for these 'new' locals, the rock art is directly tied to land use as in the working of the land, or to the fanciful ideas of children and the past.¹⁹¹ This 20th century conceptualization shows a change in the continued relationship between the people who occupy it and the land itself. There is still the cycle of giving and taking, but it looks far different in a way that older generations feel is a loss of traditional lifeways, where nature is reclaiming spaces that have been anthropogenized for thousands of years as people become more disconnected from the physical landscape and traditional culture.

The Boulders of Cemmo are no different in this respect. The way they and the space around them were used has transformed immensely since their deactivation as a cultic site in the late Roman period. At the beginning of the 20th century and before, the once-sanctuary was being used as part of a vineyard and a curious area for children to play.¹⁹² The name given to the engravings at Cemmo was *Pitoti*, which in the local dialect means something like puppets, little figures or scribbles depending on the source used.¹⁹³ What can be said is that all three names give a sense of childishness or primitivism that encompasses how the People of the Valley in the early 20th century viewed the rock engravings that would eventually give their valley its most recent name, Valley of the Signs. The following sections will explore how the interpretations, research and importance of the Rock Art of Valcamonica has changed from the early 1900s until today, with a special focus on the evolution of Massi di Cemmo.

¹⁹⁰ CHALCRAFT 2009, 138.

¹⁹¹ CHALCRAFT 2009, 138-9.

¹⁹² ANATI 1967, 11.

¹⁹³ <https://www.worldhistory.org/article/1526/rock-drawings-of-valcamonica/> (Published 20 March 2020).

3.2 The Period of “Discovery” (1900-1929)

The boulders of Cemmo were the catalyst in the creation of Valcamonica as it is known today. Without this site (and others, though less important for this period), local enthusiasm, and the willingness of people in power to take a chance, Italian prehistory would look significantly different than it currently does. The story of the ‘discovery’¹⁹⁴ of the rock art of Valcamonica begins in 1909 with a letter from a young Brescian man by the name of Walther Laeng.¹⁹⁵ Laeng, an Alpine enthusiast with an interest in natural sciences, had spent many summers in Valcamonica, which led to his knowledge of the boulders at Cemmo.¹⁹⁶ Later in life he would even say that he had played near the boulders as a child, which were referred to as “Rock of the Pitoti” by him and his young friends.¹⁹⁷ Despite this, it was not until 1909 that he first mentioned the boulders at Cemmo in a letter to the *National Committee for the Protection of Monuments*. Three years later in 1912, that he would mention them again, giving a short description to Luigi Vittorio Bertarelli who as editor of *Guida d’Italia: Piemonte, Lombardia, Conton Ticino*, mentioned them in the first edition published in 1914 on behalf of the Touring Club Italiano.¹⁹⁸ The same note about Cemmo was republished exactly in the 1916 and 1923 editions, but did not catch the attention of Italian Scholars outside of the valley until the late 1920s.¹⁹⁹ This didn’t mean that interest in the rock engravings at Cemmo and beyond were forgotten as local people like Cividate Camuno School teacher Giuseppe Bonafini, and Alpine enthusiasts like geologist Dr. Senofonte Squinabol, both of whom actively surveyed and gathered more information during this time.²⁰⁰ In 1921, Squinabol located boulder 2, which by that time had been covered by debris and was not visible, and secured funding from his father-in-law, the Mayor of Capo di Ponte, to clean up the space.²⁰¹ This intervention evidently did not last long, as by the late 20s, boulder 2 was once again covered and hidden by the underbrush.

It would not be until 1929 that Academics from beyond the valley became interested in Cemmo. Squinabol, upon estimating the age of the carvings, wrote to his friend, Dr. Giovanni Marro at the University of Turin, telling him to come to Valcamonica, while coincidentally, almost at the same time, the now Gualtiero Laeng, invited the young Dr. Paolo Graziosi from the University of Florence to come and look at the discovery he had

414 Carte, p. 400 e 416. LA VALLE CAMONICA

Da Ono carregg. in discesa; passando il torr. di F. Clegna in 40 min. a Cemmo m. 413 (ost-rie), un tempo centro metallurgico della valle e nel 1300 anche importante fortezza, di cui rimangono ora pochi avanzi di regulari muraure. Interess. la facciata lombarda della parroch. (1444), ma soprattutto la Pieve di S. Siro, la più antica della valle, monum. nazionale, sopra una rupe strapiombante sul fiume Oglio, a 10 min. dall’abitato. Costruita sopra un precedente edificio forse nel sec. XI, presenta impronte di età diverse, perfino avanzi romani. Ha portale in marmi bicolori con curiosi particolari decorativi; nell’interno pilastri con capitelli; rozzo fonte battesimale di un sol pezzo, cripta cui le absidi sovrastano, volte a crociera. In un campo che si incontra prima di giungere alla Pieve, due grossi trovanti con sculture e graffiti simili a quelli famosi del Lago delle Meraviglie nelle Alpi Marittime, v. I Vol. Da Cemmo per carregg. in meno di 10 min. a Capo di Ponte, pag. 405.

7° LA VALLE DI SAVIORE E L’ADAMELLO.

Vedi Carta a pag. 416-417.

A Ceditolo, pag. 406, sbocca da E la F. di Savio e del Pôja, che suddividendosi in tre rami sale nel cuore del Gruppo dell’Adamello, importante massiccio fra la Bresciana e il Trentino e attorno al quale si gira da qui mediante la via del Tonale. Si accede alla valle per carroz. a risvolte per Andrista m. 582 (antica chiesa di S. Nazaro con affr. del quattrocento e un paliotto in cuolo lavorato e dipinto), poi fra magnif. castagneti alle Case di Pozzolo m. 750 (a sin. si stacca la mulatt. scielata che conduce direttam. a Cervo), e a Frésine m. 850. Si hanno in vista i mirabili lavori di condotta idraulica e la colossale condotta forzata del L. d’Arno ad Isola (m. 875 di salto) e la cascata dalla bocca del lago. Da Frésine un ramo di carroz. per Valavatore m. 1110; un altro per Poste Savio m. 1035; un terzo per Cero m. 1050 (alberghetti mod.) in una delle migliori posiz. dell’intera V. Camonica. Vista sulla media valle fino oltre Breno e vasto pan. (antica chiesetta di S. Sisto m. 940, notevole per la sua bella architettura lombarda; nell’ufficio comun. 40 pergamene del 1325-1460). Da Cero la carroz. tra le praterie sale a Savio m. 1210, in *belliss. posiz. dominando tre valli (tratt. con alloggio. Nella parroch. quadro attribuito a Palma il Vecchio).

ESCURS. (Guida C. A. I. a Ponte Savio e a Savio): a) Nella CONCA D’ARNO: P° al Rif. BRESCIA (C. A. I.) sul *Passo Dernal m. 2577. Da Frésine a Isola, 20 min., e di qui per mulatt. presso la condotta forzata (ripida), fino al fabbricato di testa della funic. di servizio della Soc. Elettr. Isola-Lago. Quindi in piano lungo il canale alla bocca del L. d’Arno m. 1792, ore 3 c., dove sono i cantieri-olice, e la villa della Soc. El. Adamello. Lo stretto lago si allunga per km. 2,2 fra le roccie boscate simili ad un *fardo; molte trote. Profondità c. 70 m. Lungo una *decauville si va sulla sponda settentr. al pozzo di presa e alla condotta forzata che versa nel lago (ridotto a serbatoio) le acque prese alla V. di Adamello e condotte arditam. per fianchi di cime impervie fino all’altezza del Passo Campello, al disotto del quale passano il monte con lunga gall. il lago può subire dislivelli di c. 50 m.; particolarità dell’impianto è di sopprimerle così momentaneamente, a richiesta di ponte all’insù. Si prosegue per sent. alla Pozza d’Arno m. 1903, laghetto prosciugato, e piegando a S. per pendii erbosi, gradini rocciosi e blocchi, al Passo, ammirando il sottostante laghetto Dernal, ore 1,45 (al Rif. deposito di cibarie, utensili di cucina e cuccette elastiche). — 2° Al O.M. CAMPELLO m. 2809, al sale del Lago per la F. Campello e il vers. SE di roccie e pendii erbosi ripidi, ore 3,30, guida L. 12. *Magn. pan. — 3° Al O.M. RE DI CASTELLO m. 2800, guida L. 12: CIMA D’ERNAI m. 2825; O.M. FRISOZZO m. 2899, guida L. 16; O.CORTI DI D’ERNAI m. 2874, 2840, 2875; O.CIMA DEL DOSSO m. 2708, pag. 415. — 4° Al TRENTINO pel *Passo di Campo m. 2288, mulatt. Dalla bocca del lago seguire la così detta *traversera alta che mette al valico in 3 ore; *magnif. pan. Discesa in ore 1,45 per buon sent. al fondo della F. di Dorno, passando pel L. di Campo m. 1997 e le mal-

S3.I2 The page mentioning Cemmo from the 1916 version of *Guida d’Italia del Touring Club Italiano per la Lombardia, Piemonte e Canton Ticino*

¹⁹⁴ The quotation marks on this are a way to highlight how the rocks were already known by locals, but in 1909 were ‘discovered’ by the wider public.

¹⁹⁵ MARRETTA 2008, 36.

¹⁹⁶ *Ibid.*

¹⁹⁷ MARRETTA 2008, 45.

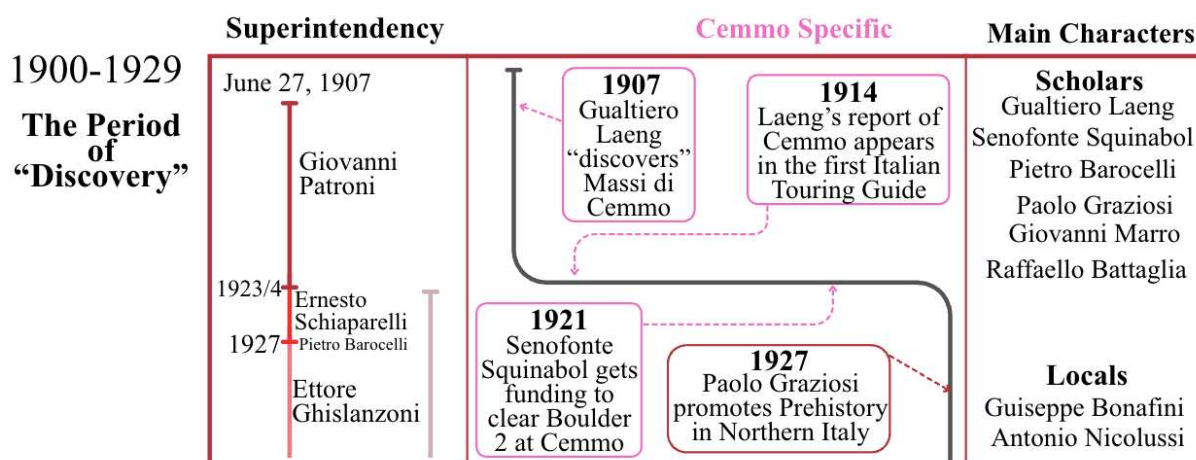
¹⁹⁸ TARANTINI 2018, 111-2.

¹⁹⁹ VILLA, MARRETTA 2009, 171.

²⁰⁰ MARRETTA 2008, 36.

²⁰¹ GAMBARI 2009, 26c.

made 15 years earlier.²⁰² These two scholars would visit the Cemmo boulders in 1930, and help shape what happened during the next phase of the valley's history.



3.2.a The Foundation of Institutionalized Research

Beyond Valcamonica during this period, there was a greater interest in the preservation of Italian Heritage and cultural sites throughout the kingdom. This interest was heard and on 17 July, 1904, Royal Decree no. 431 was announced, which stated:

L'azione spettante al Ministero della Pubblica Istruzione a tutela degli interessi archeologici ed artistici viene esercitata per mezzo dei seguenti Uffici:

- a) Sovrintendenze sui monumenti;
- b) Sovrintendenze sugli scavi, sui musei e sugli oggetti di antichità;
- e) Soprintendenze alle gallerie e sugli oggetti d'arte;
- d) Uffici per l'esportazione di oggetti d'arte e di antichità.²⁰³

Essentially it created a number of offices regulated by the Department of Education as a way to protect and preserve Italian Heritage and Antiquities. Most important for the Rock art of Valcamonica was part B, which led to the creation of "Superintendencies of excavations, museums, and objects of antiquity."²⁰⁴ Though these offices were formed in 1904, they did not truly take shape until 27 June, 1907, when Law No. 386, which placed professors and museum directors already employed in the government as the staff of the new superintendencies.²⁰⁵ This law also stated that Lombardy would fall under the Superintendency of excavations and museums of Pavia.²⁰⁶ As a result of this law, Dr.

²⁰² MARRETTA 2009, 45-6.

²⁰³ ART. 1, R.D. N. 431/1904 (IT.).

²⁰⁴ ART. 3, R.D. N. 431/1904 (IT.).

²⁰⁵ <https://sabapcolc.cultura.gov.it/chi-siamo/la-soprintendenza/storia/> (22 May 2026).

²⁰⁶ ART. 29, L. N. 386/1907 (IT.).

Giovanni Patroni of Pavia became the first superintendent with a term lasting from 1907 to 1923/4.²⁰⁷

On 31 December, 1923, another Royal Decree (no. 3164) was released, which reorganized the superintendencies of excavations and museums, monuments, galleries and objects of art, and various other offices, into two entities the Superintendencies of Antiquity, and those of Art.²⁰⁸ As a result of this reorganization, Lombardy became a part of the new *Soprintendenza del Piemonte, Lombardia e Liguria*, based in Turin under the headship of Dr. Ernesto Schiaparelli. This lasted until 1927, when Schiaparelli resigned due to his age and health issues, leaving Dr. Pietro Barocelli as interim director. As the position was interim, Barocelli's power was significantly limited which resulted in Lombardy being detached from his superintendency and put under the care of *Soprintendenza del Veneto, Lombardia e Venezia Tridentina*, led by Dr. Ettore Ghislanzoni from Padua.²⁰⁹ Ghislanzoni remained in this position until 1934,²¹⁰ during which time he worked diligently to protect and preserve the boulders of Cemmo by creating the first institutionalized surveys and research in an attempt at conservation, and building the Tin roofs to cover the rocks to protect them from erosion.²¹¹ Under the purview of Ghislanzoni, inspector Raffello Battaglia (with the help of local guide Antonio Nicolussi) began to carry out intensive surveys of prehistoric art in Valcamonica, specifically at Cemmo, where in 1931 he dug an exploratory trench that yielded very little and was rediscovered in the 2000s.²¹² There is a lot of work done by the superintendency in regards to Valcamonica in the 1930s, but unfortunately the War years were not all research and discovery as will soon be seen.

3.3 The War Years (1930-1947)

This period is full of trials and tribulations, but it also marks the beginning of real academic interest in the finds of Valcamonica. A primary motivation of further interest was the *XIX Riunione della Società Italiana per il Progresso delle Scienze* hosted in Turin in September of 1930. During this multiday event two presentations were given on the carved boulders of Massi di Cemmo: "On the recent discovery of prehistoric engravings in Valcamonica" by Paolo Graziosi, and "The first rock engravings in Valcamonica" by Giovanni Marro.²¹³ Despite both scholars presenting on the same topic, neither had known that the other had been working on the same site only months apart.²¹⁴ Upon finding out about each other, Marro made it very clear that he wanted the credit for the discoveries at Cemmo, something which would soon force Graziosi away from the valley and create an irreparable rift between Marro and the Superintendency.²¹⁵ Beyond the dramatics, these presentations were very important as they introduced a wider range of scholars to the fact that Valcamonica was an area of archaeological, especially prehistorical, interest and could merit

²⁰⁷ ART. 1, R.D. N. 3164/1924 (IT.).

²⁰⁸ https://archeologiainlombardia.cultura.gov.it/?page_id=30 (22 May 2026).

²⁰⁹ <https://sabapcolc.cultura.gov.it/chi-siamo/la-soprintendenza/storia/> (22 May 2026).

²¹⁰ PETTENÒ 2012, 381-2.

²¹¹ POGGIANI KELLER 2006, 81.

²¹² *Ibid.*

²¹³ VIGLIARDI 2005, 37.

²¹⁴ *Ibid.*

²¹⁵ GAMBARI 2009, 26.

further exploration. After this conference, Graziosi would continue to study Italian prehistory though in a different location and context, while Marro returned many times to Valcamonica, leading to his eventual locating and clearing of boulder 2 in 1931.²¹⁶

During the 30s, the most active scholars in the valley were Battaglia and Marro (who will be discussed further in the next subsection). Battaglia was sent to the valley in 1932 to continue his surveying, primarily with the help of a local guide/assistant by the name of Antonio Nicolussi. Within weeks of his arrival, Battaglia was able to write to Director Ghislanzoni about the finds he had already made and documented.²¹⁷ Somehow, this information made it to Marro who then quickly returned to the valley and began his own hunt using his own locals, specifically Giovanni Murachelli, Don Romolo Putelli, and Longino Amaracco, a local forest ranger who became indispensable in navigating the local area and relationships with locals themselves.²¹⁸ This began a Rock Art ‘Discovery’ arms race between Battaglia/the Superintendency, who had the legal rights to the discoveries, and Marro, who felt as though he had discovery rights due to his insistence that he was first on the scene.²¹⁹ Over the course of the next few years, until the true outbreak of WWII, Battaglia and Nicolussi (or Giacomo Bellicini, with whom Nicolussi would trade off guide duties with), would document some of the most famous sites in Valcamonica today including Naquane, Foppe di Nadro, Cimbergo, Bedolina, and others.²²⁰ Also during this period, the rivalry between the Superintendency and Marro became more intense, bringing locals into the fold and by 1933 even setting up networks of informants and spies.²²¹ Amaracco, Marro’s guide, was caught in the middle of this dramatic situation, though he did eventually settle on the side of the Superintendency as they had the power to fine him or put him in prison.²²²

Beyond just finding new sites, Battaglia also began to sort elements of engravings into different groups based on their visual elements. These groups were, “Human figures; Animals; Huts and similar structures; Masonry buildings; Groups of grids and linear figures; Isolated figures; Alphabetic characters and inscriptions [etc.].”²²³ He then went on to try and interpret them using a physically grounded and multidisciplinary approach, specifically drawing on his background as a local and folklorist, to determine meanings and the small differences that differentiated groups.²²⁴ Marro’s work on the other hand led to very different interpretations, that would have much larger political implications.

<i>Data</i>	<i>Località visitate</i>
14/12	Buschi di Nadro - Zurlo
15/12	Zurlo
16/12	Zurlo - Naquane
17/12	id. id.
18/12	Scala di Cimbergo - Sarnegnano
19/12	Sarnegnano - Sopracasquene
20/12	Pisè
21/12	Bedolina - Giadighè - Fub - Let.
22/12	id.
23/12	Pisè - Naquane
24/12	Sarnegnano - Monticcolo - Darfo
25/12	Naquane - Sopracasquene - Nadro
26/12	Naquane - Scala di Cimbergo
27/12	Scarbale - Popp - Giadighè - Fub - Let.
28/12	Scarbale - Bedolina
29/12	Naquane - Zurlo - Bedolina
30/12	Zurlo - Naquane - Darfo

S3.I3 List of locations visited by assistant Antonio Nicolussi on behalf of Raffaello Battaglia in 1931 in the municipalities of Capo di Ponte, Ceto, Cimbergo, Darfo (from the Journal of the Excavations carried out in 1931 in the locality of Cemmo di Capo di Ponte (Brescia), in ATS).

²¹⁶ <https://www.cesp.it/web/VALCAMONICA/storia%20ricerche%20ENG.html> (22 May 2026).

²¹⁷ TARANTINI 2009b, 30.

²¹⁸ GAMBARI 2009, 28.

²¹⁹ TARANTINI 2009b, 30.

²²⁰ *Ibid.*

²²¹ *Ibid.*

²²² GAMBARI 2009, 31-2.

²²³ GAMBARI 2009, 33.

²²⁴ GAMBARI 2009, 34.

3.3.a Rock Art and Fascism in Valcamonica

As Marro continued to work in Valcamonica and beyond in the 1930s, his work seemed to become far more ideological. His work began to exhibit less and less original ideas, instead focusing on his role as the discoverer of “*emporio paleontologico camuno*,” additionally Marro also tried to subtly, “curry favour with the fascist regime and gain personal prestige. [*accattivarsi i vertici del regime fascista e acquisire prestigio personale.*]”²²⁵ This new disposition, his penchant for historical positivism and background in ethnology, made for a perfect catalyst to launch him quickly into fascist academics.²²⁶ By the summer of 1937, Marro had written a letter to the superintendency discussing the news that Germans scholars led by Leo Frobenius had come to Valcamonica to do research in 1936. The letter expressed his fears that German scholars were not only taking away something he considered his, but also tarnishing Italian pride by publishing their own history before them.²²⁷ The next year in 1938, the publication of Mussolini’s “Manifesto del Razzismo Italiano,” opened up many possibilities for Marro due to his well-documented interest in origins and his background in Anthropology. It even eventually led to him meeting Mussolini himself, after which he was “appointed Senator of the Kingdom and a few months later, he finally entered university roles (until then, he had only held a teaching position.)”²²⁸ Marro had finally gotten what he wanted most, much to the detriment of Rock Art research in Valcamonica and community relationships between locals and scholars. As a result of his fascist ties, scholars after the war were hesitant to look at his robust body of work (photographs, drawings, etchings, etc. as all of his interpretations were unusable), or into the valley itself out of a need for distance after Liberation. It wasn’t until 1952, when Marro died that people (like Emmanuel Anati) began to once again take an interest in rock art in the central Alps.²²⁹

Marro’s earlier fears were seemingly not unfounded as in 1937 German scholars published some of their first work on Valcamonica and its prehistoric implications.²³⁰ Franz Altheim, a scholar of ancient history, and Erika Trautmann, a politically well-connected illustrator and photographer, published a paper²³¹ arguing that Italian populations had a Nordic origin, based on iconographic similarities between Valcamonica and Sweden, and disparate classical sources.²³² This article combined with Trautmann’s close person relationship with Hermann Göring, led to both of them being inducted into the *Ahnenerbe* (“Ancestral Credit”), a society founded by Heinrich Himmler for the purpose of discovering the past of the ‘Aryan Race’ through archaeological and cultural means.²³³ Altheim and Trautmann were then able to travel many places with this purpose (including back to Valcamonica), where they then ‘researched’ and published more papers arguing similar concepts to the one published in 1937.

²²⁵ MARRETTA 2019, 46.

²²⁶ TARANTINI 2009b, 35-6.

²²⁷ *Ibid.*

²²⁸ TARANTINI 2009b, 38.

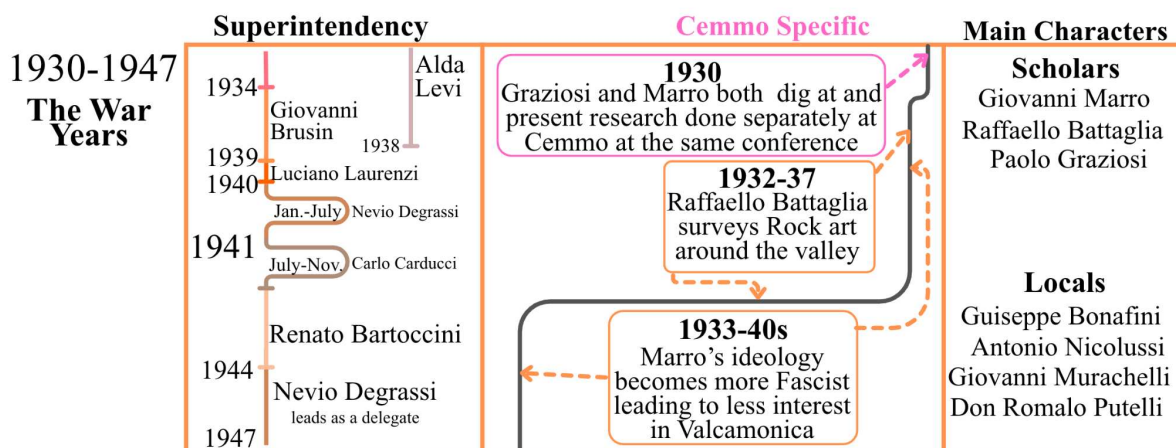
²²⁹ GAMBARI 2009, 32.

²³⁰ TARANTINI 2009a, 36.

²³¹ ALTHEIM, TRAUTMANN 1937, 89-118.

²³² TARANTINI 2009a, 36.

²³³ KUBA 2019, 38.



3.3.b A Turbulent Time for the Superintendency

The foundation of the Superintendency in Lombardy was still shaky at the dawn of the 1930s. This was in part due to the multiple changes in leadership and territorial control that occurred during the 1920s, but that did not mean no work was accomplished in Valcamonica before the outbreak of World War II. As discussed above, Raffaello Battaglia was hard at work taking data and mapping new engraving sites found in the valley, under the purview of one of two very important leadership figures during this time, Ettore Ghislanzoni. As Stated previously Ghislanzoni was head of the *Soprintendenza del Veneto, Lombardia e Venezia Tridentina*, and through his relationship with the former interim director Pietro Barocelli, he had taken a special interest in Valcamonica which can be seen in his many letters with Battaglia and others.²³⁴ The other leadership figure who needs to be mentioned in this section, though she did not directly interact with Valcamonica, is Alda Levi, the director of the detached/separated office of the Superintendency of Monuments in Milan. She was moved from Bologna and became the sole director of the office, serving from 1924 to 1938, when she was officially removed due to Royal Decree 15/11/1938, no. 1779.²³⁵ This law/decreed strengthened an earlier decree (Royal Decree 5/9/1938, n. 1390), which had caused Levi to be suspended due to her identification as a Jewish woman, by 14 December 1938 she had been removed from duty and her office was dissolved.²³⁶ In her 14 years of service she is noted to have, “laid the foundations for territorial archaeological protection, with systematic monitoring, the creation of an archive, and the regular publication of finds.”²³⁷ Levi’s dedication created the groundwork for preservation and protection of historical monuments and locations throughout Lombardy.

In May of 1939, the *Soprintendenza alle Antichità della Lombardia* was made autonomous once again with Luciano Laurenzi at the head. With little time and even less actual documentation from the last 15 years, Laurenzi attempted to organize the new office. Then the war began. The next 4 years had 4 directors, Nevio Degrassi, Carlo Carducci, Renato Bartoccini and Salvatore Puglisi, essentially passing the duty around between themselves as they were called up for military service at different times. Near the end of the

²³⁴ TARANTINI 2009b, 27.

²³⁵ <https://sabapcolc.cultura.gov.it/chi-siamo/la-soprintendenza/storia/> (22 May 2026).

²³⁶ https://archeologiainlombardia.cultura.gov.it/?page_id=30 (22 May 2026).

²³⁷ *Ibid.*

war in 1944, Degrassi was placed in charge and led as a delegate until 1947, where he was then made director until 1953. Despite the turmoil, Degrassi was able to begin major renovation projects, acquire important monuments and the land around them for protection and lay the foundation for later protective interventions.²³⁸

3.4 The Period of Promotion (1947-1960)

As discussed in the previous section, the postwar period was difficult as there was a lot of work to be done. In the context of Valcamonica the early 1950s were defined by two major events: the return of Gualtiero Laeng and the foundation of the Gruppo Naturalistico Bresciano, better known as *G. Ragazzoni* or the *Bresciani*, and the appointment of Mario Mirabella Roberti to the office of Superintendent of Antiquities. These important events will become intrinsically linked as the goals of the *G. Ragazzoni* could not have been realized without the support and interest of the Superintendency led by Mirabella Roberti.

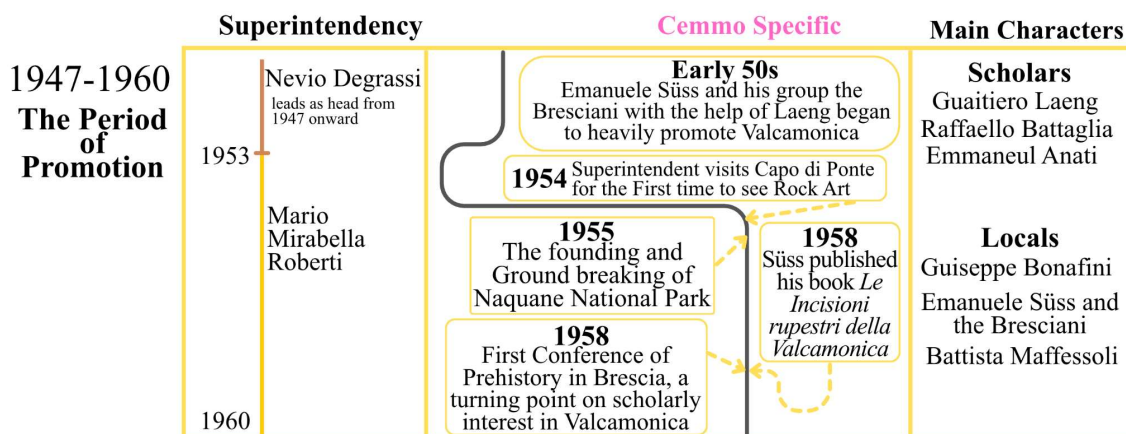
The *G. Ragazzoni* was originally founded in 1898 at the University of Brescia for the purpose of creating a museum of natural history using the collections of the University.²³⁹ After the Museum was created, and after WWII, there was a push to bring the society back to its roots, which led to excursions to Valcamonica to admire the local geology and look at the engravings there. These early trips in 1949-1950 were led by Gualtiero Laeng, who had returned to the Valley in 1946 and resumed his explorations. As a result of these excursions, Laeng began a close relationship with the *G. Ragazzoni*, but specifically Emmanuel Süss and Italo Zaina. Together these friends, particularly Laeng and Süss, explored and mapped new areas of Rock art, and devoted themselves to the intention of publicizing the valley, so as to protect and preserve the history within it.²⁴⁰ Together they decided that their first initiative would be to propose a rock engravings national park at the International Congress of Mediterranean Prehistory and Protohistory, held in Florence in April of 1950.²⁴¹ This effort would be realized in 1955 with the ground breaking of *Parco Nazionale delle incisioni rupestri di Naquane*, but there are several important events that needed to happen before it became a reality.

²³⁸ <https://sabapcolc.cultura.gov.it/chi-siamo/la-soprintendenza/storia/> (22 May, 2026).

²³⁹ TARANTINI 2009b, 27.

²⁴⁰ GAMBARI 2009, 27.

²⁴¹ ZAINA 1950. 188.

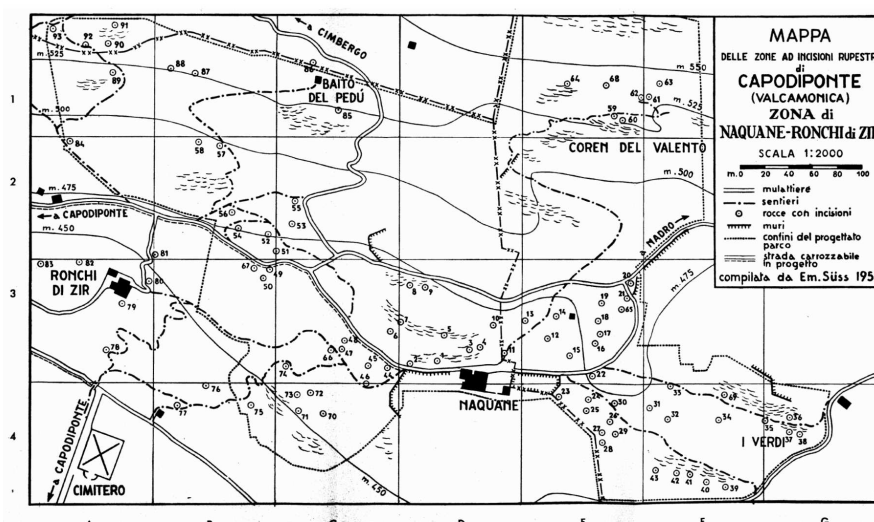


One of the most important things Süss, Laeng and Zaina knew to be true, was that if people, specifically people in power, were to care about the valley they had to see it, and therefore it needed to be promoted and publicized. So beyond publishing new research, they also hosted guided excursions into Valcamonica for important people similar to the ones in 1949-50 that had

inspired the effort to begin with. It was one of these organized hikes that would make significant gains towards reaching the goal of a national park; in 1954, Laeng led a group that included Mario Mirabella Roberti.²⁴²

Mirabella Roberti had only taken the office of

superintendent months earlier, but upon seeing and understanding the importance of the valley agreed with the naturalists that it should be protected.²⁴³ Only two weeks after his time in the valley, Mirabella Roberti reached out to various entities about purchasing the land of what would become *Naquane*. By July, construction had been approved for pathways and roads, creating the infrastructure of what would become the national park.²⁴⁴ That same summer of 1954, the *G. Ragazzoni*, organized an event titled “Mostra delle Incisioni Rupestri Preistoriche,” which was hosted at the castle of Brescia in 1954. This event was a stunning success, by the end bringing the attention of 80,000 people to the rock engravings of



S3.14 Süss' 1955 map of *Parco Nazionale delle Incisioni Rupestri di Naquane*

²⁴² TARANTINI 2009b, 40.

²⁴³ SÜSS 1954, 148-9.

²⁴⁴ TARANTINI 2009b, 40.

Valcamonica.²⁴⁵ It displayed maps, engravings, photographs, drawings and even, “a series of large casts that Süss had been working on since 1952.”²⁴⁶

Hard work paid off as on the 30th of June 1955, construction began on a more usable road connecting Naquane to Capo di Ponte.²⁴⁷ This was the beginning of Süss’ dream come true, though he had much larger plans than just an archeological park, only some of which would come to fruition in the next several years.²⁴⁸ Another long chased goal of Süss and Laeng, specifically, was the creation of an accurate and certified map marking the different instances of Rock Art or other prehistoric sites in the valley. The map was a long term project, one that previous scholars like Giovanni Marro and Raffaello Battaglia, as well as local guides like Battista Maffessoli, Giuseppe Bonafini, Antonio Nicolussi and others had been working on for years.²⁴⁹ Using these sources and their own discoveries, Süss and Laeng (though Süss did most of the actual drawing and map making) created one map in 1955 that was used to determine the borders of the park at Naquane by marking and numbering important sites.²⁵⁰ The next year, 1956, marked the first *Convegno di Preistoria del Bresciano*, or the first Conference on Prehistory in Brescia, which brought new academic interest to the valley.²⁵¹ This was furthered in 1958, when Süss published a collection showcasing his years of work, titled *Le Incisioni rupestri della Valcamonica*²⁵², which contained pictures, maps and other forms of documentation as well as scholarly insights.²⁵³ By the end of the 50s, Süss and Laeng were older, making the work they loved harder. As a result they decided to pass on their larger projects and materials to the next generation of scholars who had made their way to Valcamonica, specifically Emmanuel Anati in 1958, who will be discussed further in the next few sections.

3.4.a “[He] left a Superintendency.”

Mario Mirabella Roberti was a well-reasoned choice to put in charge of the Lombardy superintendency after the tumultuous war years, as he was a charismatic and intensely active leader.²⁵⁴ In Milan, he was remembered as having “found an empty container and left a Superintendency.”²⁵⁵ It is due to his effort and work with scholars and locals of Valcamonica that the rock art that is there today was preserved. This diligence can be seen in his quick acquisition of Naquane in 1954, and his efforts in 1958 to create Süss’ vision by establishing Naquane as an ornithological oasis, taking steps to protect the forest around it and reintroducing native animal species to the area. Mirabella Roberti also took pre-emptive steps to protect the valley and its art during the introduction of infrastructure for the post war world. These building projects included “construction of the road to Pescarzo, the positioning of new electrical pylons, and the Somiren mineral exploration projects,” all of which he

²⁴⁵ SÜSS 1954, 140.

²⁴⁶ TARANTINI 2009b, 40.

²⁴⁷ POGGIANI KELLER 2006, 84.

²⁴⁸ At this moment, Süss is truly ahead of his time, especially in the context of Prehistory and Italy. The proposal he wrote envisioned a combined Archaeological park, Nature Conservatory, wildlife reserve, historical recreation and scholarly research center. His vision looked a lot more like what American and Canadian national parks look like today, something that at the time was in the process of being built.

²⁴⁹ This is still an ongoing project as new sites are continuing to be found and documented, though with satellite technology the process of marking sites on a map is significantly easier and can be a wider collaborative project.

²⁵⁰ <https://www.rupestre.net/tracce/?p=15625> (Published 31 Jan. 2023).

²⁵¹ GRUPPO NATURALISTICO 1956.

²⁵² SÜSS 1958.

²⁵³ <https://www.rupestre.net/tracce/?p=15625> (Published 31 Jan. 2023).

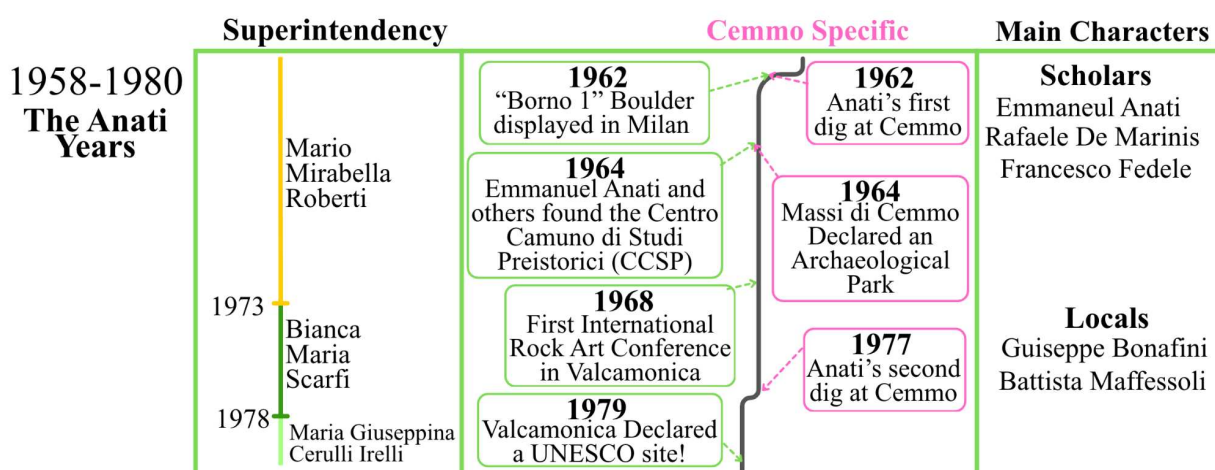
²⁵⁴ <https://sabapcolc.cultura.gov.it/chi-siamo/la-soprintendenza/storia/> 2026.

²⁵⁵ TARANTINI 2009b, 40.

seemingly intervened in to try and ensure the best outcome for the valley residents and the landscape he was tasked to preserve and protect.²⁵⁶ Importantly for this project specifically, in 1957 Mirabella Roberti took steps to purchase the “Pian delle Greppe ark,” the home of Massi di Cemmo, with the intention to protect and “enhance” the site.²⁵⁷ He remained the director of the Superintendency through the 60s into the 70s, finally retiring in 1973, and as a result he will continue to be an important advocate into the next time period.²⁵⁸

3.5 The Anati Years (1956 - 1980)

As can be seen by the title of this section, the Italian-Israeli scholar Emmanuel Anati will be vital to understanding this next phase of scholarly development and presentation. Anati arrived in Valcamonica in 1956 and planned to stay only a week, as he was set to compare the engravings of the valley with those of other rock engravings found in the Mediterranean such as the Monte Bego complex and sites on the North African coast and in Eastern Spain.²⁵⁹ In Capo di Ponte, Anati met the Maffessoli brothers (specifically Battista) who were willing to guide him, they showed him the most famous and lesser known sites as well as some that had yet to have been published.²⁶⁰ Upon seeing the wealth the valley had to offer, Anati began yearly missions starting after 1956. One of the first and most important steps taken by the young scholar was to collect and organize all of the findings and research that had been done over the last 40 years.²⁶¹ From there Anati used his international training, and skills learned under the likes of Henri Breuil, to sort engraved figures into a typology where he then analysed them stylistically and based on their superimpositions of one another.²⁶² This organized technique was ground-breaking as it created a more definitive timeline of phases in rock art in Valcamonica. Previously scholars like Laeng, Marro, and Süss had all dated the engravings to the late Iron Age, but with Anati’s new analysis, he



²⁵⁶ TARANTINI 2009b, 44.

²⁵⁷ *Ibid.*

²⁵⁸ Moving forward, there will no longer be an individual section for just the superintendency, but for all entities promoting Valcamonica to the world through curated events, training centers, displays, etc.

²⁵⁹ TARANTINI 2009b, 43.

²⁶⁰ *Ibid.*

²⁶¹ ANATI 2009, 57.

²⁶² TARANTINI 2009b, 43-4.

found that “Phase 1” engravings dated as far back as the Neolithic.²⁶³ The other great endeavor Anati accomplished in those early years was an extensive mission to discover, describe and mark the location of rock art in the valley. This entailed a small team of students and volunteers taking pictures, making tracings and writing descriptions of various sites, using new available methods to ensure as much detail could be captured as possible.²⁶⁴ Battista Maffessoli, besides being a knowledgeable guide, was also an experienced plaster cast maker (both positive and negative cast types) which allowed scholars to ‘take’ the engravings with them for closer study.²⁶⁵ This effort from 1956 -1961 allowed for the “identification of approximately 50,000 new prehistoric figures,” creating a more robust archive than ever before.²⁶⁶ All of this work eventually led to the publishing of Anati’s masterpiece of synthesis, *La Civilisation du Val Camonica*²⁶⁷, as well as his complete documentation of Rock 1 at Naquane, aptly named *La Grande Roche de Naquane*²⁶⁸ in 1960.²⁶⁹

While Anati was working on new research in the early 60s, the Superintendency was still working on promoting the valley. One of these activities was the display of “Borno 1” in 1962 as a symbol of Valcamonica in the Piazza Duomo in Milan as part of an exhibition on Prehistory in Lombardy

created as a way to celebrate the VI Congress Internazionale di Preistoria UISPP, that was being hosted in Rome.²⁷⁰ This time period also highlighted the dedication of Mario Mirabella Roberti to preservation through the continued and often painful attempts to obtain further land to grow the amount of protected locations within the valley. While not always fruitful, one of his early attempts, the acquisition of the “Pian delle Greppe ark” in 1957, succeeded in becoming the *Area Archeologica dei Massi di Cemmo* in 1964. Another major win came in 1963²⁷¹, with the establishment of the *Istituto per la Preistoria Bresciana* and the *Centro per*



S3.I5 Early Version of Anati's Typology of engraved figures in Valcamonica by time period published in 1966

²⁶³ TARANTINI 2009b, 44.

²⁶⁴ TARANTINI 2009b, 43.

²⁶⁵ <http://www.rupestre.net/tracce/?p=15556> (Published 31 Jan. 2023).

²⁶⁶ TARANTINI 2009b, 43.

²⁶⁷ ANATI 1960a.

²⁶⁸ ANATI 1960b.

²⁶⁹ ANATI 2009, 58.

²⁷⁰ POGGIANI KELLER 2009b, 85.

²⁷¹ Though it was not totally complete until 1965.

lo Studio delle Incisioni Rupestri. This project was supported by many community organizations such as, “the Ateneo of Brescia, the Provincial Administration, the Chamber of Commerce, the Provincial Tourist Board, the Community of Valle Camonica and the Municipality of Capo di Ponte,” with the goal of creating an archive and doing further research in the valley as a form of preservation and protection.²⁷²

3.5.a Anati and the *Centro Camuno di Studi Preistorici*

Just a year after the founding of *Istituto per la Preistoria Bresciana*, many of its local contributors (the municipality of Capo di Ponte, and several important political groups) supported a very similar project headed by the “Anati Mission.”²⁷³ Thus in the summer of 1964, the *Centro Camuno di Studi Preistorici* (CCSP) was born.²⁷⁴ Anati envisioned the CCSP as not only a repository for research, but a place to hold conferences and train the next generation of scholars interested in rock art.²⁷⁵ As soon as the CCSP was functional, it became the base of operations for intense fieldwork in the form of exploration and surveys, and began to draw enthusiasts (scholarly and otherwise) for specific training and seminars.²⁷⁶ As early as 1962, the Superintendency recognized the usefulness of Anati’s many connections and worked alongside him and later his institute on various excavations such as those in the areas of *Dos dell’Arca* and *Massi di Cemmo*.²⁷⁷

Anati, at heart, was primarily interested in rock art and this shows in his work. One specific event highlighted this passion better than any before: in 1968, the CCSP played host to the First Valcamonica Symposium, an international conference on prehistoric art.²⁷⁸ The event was promoted by the International Union of Prehistoric and Protohistoric Sciences and did not have a theme, though each event moving forward would.²⁷⁹ This series of lectures would act as a catalyst for further development and interest as it brought scholars from all over the world into the valley for the first time.²⁸⁰ The interest and connections made at this event and others like it hosted by the CCSP would be parlayed into more field work in the 70s at sites like *Foppe di Nadro*, specifically *Riparo II* and near Breno’s Castle and arguably the designation of Valcamonica and its rock art as a World Heritage Site, giving it the honor of being Italy’s first UNESCO site.²⁸¹

3.6 The Period of Internal Review (1980 - 2005)

It is at this point in discussing the presentation of Valcamonica that one must begin to reframe discussion into two specific categories: that of the promotion of the valley, and that

²⁷² TARANTINI 2009b, 45.

²⁷³ MARRETTA 2008, 46.

²⁷⁴ This of course caused (and still causes) a lot of friction with the government backed institute, so much so that for a while people were hopeful that the two VERY SIMILAR bodies would merge, but by late 1965 it became clear that that would not be happening.

²⁷⁵ MARRETTA 2008, 46.

²⁷⁶ TARANTINI 2009b, 45.

²⁷⁷ POGGIANI KELLER 2009b, 85.

²⁷⁸ MARRETTA 2008, 47.

²⁷⁹ TARANTINI 2009b, 46.

²⁸⁰ MARRETTA 2009, 52.

²⁸¹ MARRETTA 2008, 46-7.

of review and research. The period between 1980 and 2005 was filled with massive discoveries as well as giant leaps in the technology used for archaeology and for communication. This was also a period of major shifts in leadership and public perception of Valcamonica, due to its new identification as a UNESCO site. Many works for public consumption were published explaining the history of the valley, on top of the many scholarly articles that appeared to articulate new finds and recontextualize older data. The relationship between the valley and the people who relied on it changed greatly during this period not only as a result of continued industrialization, but also because of the ‘opening’ of the valley and its treasures to a much larger audience.²⁸²

3.6.a Welcoming the World Stage

After the conference of 1968, recognition as a World Heritage Site in 1979, and the continued lectures and training at the CCPS, it became clear that Valcamonica was no longer of just Italian or even European interest. Anati as well as the Superintendency recognized this fact and began to work on larger scale projects to introduce the valley to its greater audience.

In 1982, an exhibition on rock art in Valcamonica was hosted by the CCSP in partnership with Centro Culturale San Carlo in Milan by the name of *I Camuni: Alle radici della civiltà Europea*.²⁸³ This event lasted from June until November and featured different kinds of



S3.16 Still Frames from a video made about the *I Camuni: Alle radici della civiltà Europea* Exhibit in Milan Archived on the internet at maraèa: *archivio della memoria della Valle Camonica*

documentation of rock art found around Valcamonica, such as tracings, maps, physical models of engraved objects, watercolour ‘reconstructions’ of what life may have looked like, and even full reconstructions of rocks from Naquane using plaster casts.²⁸⁴ Alongside this event Anati published a book of the same name with even more information about the valley.²⁸⁵ This was not Anati’s only work in 1982, as he also published his work on the site of Luine in the book *Luine Collina Sacra*²⁸⁶, which drew yet more attention.²⁸⁷

²⁸² In this case ‘opening’ means the introduction of non-traditional ways of thinking, tourism, clashes of interests between locals and the government, and international recognition. Valcamonica was being examined, viewed and poked at more than it ever had before in modern times.

²⁸³ ANATI 1982a.

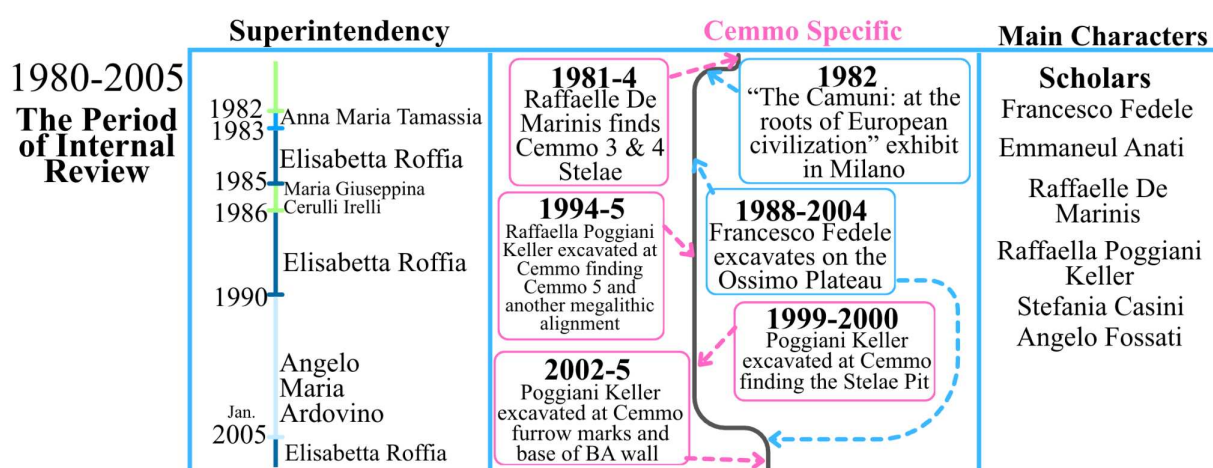
²⁸⁴ <https://maraea.it/i-camuni-mostra-milano-1982/> (23 Aug. 2017).

²⁸⁵ MARRETTA 2008, 48.

²⁸⁶ ANATI 1982b.

²⁸⁷ MARRETTA 2008, 48.

As a result of this new attention and under new leadership, the superintendency continued to take steps to preserve, protect and promote its valuable cultural resources. These actions were headed by the official appointed as responsible for the Province of Brescia, Raffaele de Marinis, who would hold this position from 1979 to 1988.²⁸⁸ De Marinis took an ‘All Around’ approach to the protection of the valley, focusing on preservation, intervention and comprehensive data collection and analysis. Under his stewardship, there was a comprehensive study of all data previously collected and an “exhaustive survey of rare finds,” which was then standardized to ensure that future information collected could be organized and understandable, as well as a series of “systemic restoration campaigns on the rocks with engravings.”²⁸⁹ Beyond reorganization, de Marinis also promoted new research and partnerships with universities and scholars. These were then highlighted in the *Notiziario della Soprintendenza Archeologica*, which began publication during his term in 1981 as a way to keep the public informed on archaeological activities in the valley.²⁹⁰ After de Marinis left his position, other new organizational methods were put into action, specifically the use of new tools like the Internet, for archival purposes. In 1989, *Petra* was initiated, and became the first computerized catalogue of Rock art.²⁹¹ This new resource was continually improved upon and used along with other new technological tools to constantly monitor sites and assess their risks and critical preservation issues.²⁹² From this moment onwards, the use of technology and scientific methods in the promotion and conservation of the cultural heritage of Valcamonica will become vitally important.



Valorization of the valley continued to be a significant strategy in Valcamonica under the next long term stewards, Angelo Maria Ardovino, who served as superintendent from 1990 to the end of this period in 2005,²⁹³ and Raffaella Poggiani Keller, who replaced de Marinis as Inspector for the Superintendency after his retirement in 1989. Under their leadership, many new initiatives were undertaken to bolster the accessibility of the valley to the wider public. This included the creation of the first websites in 2003 for the two national parks within the valley (Naquane and Cemmo) and working with the Institute of the Blind in

²⁸⁸ POGGIANI KELLER 2009b, 86.

²⁸⁹ *Ibid.*

²⁹⁰ https://archeologiainlombardia.cultura.gov.it/?page_id=43 (22 May, 2026).

²⁹¹ POGGIANI KELLER 2009b, 87.

²⁹² This resource is not accessible today from the general internet.

²⁹³ POGGIANI KELLER 2009b, 86.

Milan to make sites more scrutable for blind or visually restricted visitors.²⁹⁴ Additionally, Ardovino oversaw while Poggiani Keller did much of the boots on the ground work in the creation of six new archaeological parks spurred on by the increased recognition of the UNESCO site:

- *Il Parco Archeologico Nazionale dei Massi di Cemmo* - in Capo di Ponte
- *La Riserva Regionale della incisioni Rupestri di Ceto* - in Cimbergo e Paspardo
- *Il Parco Archeologico Comunale di Seradina-Bedolina* - in Capo di Ponte
- *Il Parco Comunale Archeologico e Minerario* - in Sellero
- *Il Parco Pluritematico "Coren de le Fate"* - in Sonico
- *Il Parco Archeologico di Asinino-Anvoia* - in Ossimo²⁹⁵

Parco Nazionale delle incisioni Rupestri di Naquane, which had already existed for some time, was enhanced during this period with the expansion of new routes and educational signage for visitors.²⁹⁶ In 1997, upon seeing the need to separate Prehistory and Roman history so as to adequately celebrate both, Ardovino oversaw the beginning of a project that would culminate in the *Museo Nazionale della Preistoria della Valle Camonica*, located in Capo di Ponte.²⁹⁷ What would fill this museum would come from the various excavations taking place up and down the valley during this phase.

3.7.b Scientific Excavations and Discoveries at *Massi di Cemmo*

This period marked a change in the type of excavations occurring in Valcamonica. As seen in previous sections, many of the ‘historic digs’ were interested in rock art, alone. On one hand, this led to a solid chronology of time periods in the valley using the stylistic analysis of engravings found both on the ground, or on stelae and other rock monuments.²⁹⁸ But on the other, this focus led to much of the context of sites throughout the valley being lost due to poor record keeping, the use of harsh methods and chemicals, ‘amateur archaeologists’ and the excavation of full sites (without leaving parts/areas for later digging and analysis with more technologically advanced tools in the future). During this period, excavations became more scientifically focused (taking samples, using precise tools, etc.) due to the specific factors of new technological advances, university involvement, and lucky finds, which led to a lot more usable and complex data. These new data have offered scholars a greater insight into what life in Valcamonica may have really looked like for prehistoric people. Poggiani Keller was a vital part of this work until she stepped down in 2013, as can be seen in the complexity and output of work found in *NSAL* during her tenure. Her fingerprints are also all over many of the most important ‘lucky finds’ of this period and the next. Explorations of this period that are significant in the context of this thesis are:

- The megalithic sanctuaries of the Ossimo-Borno plateau: Ossimo-Pat and Ossimo Anvoia
- Evidence of Upper Paleolithic life and land use in the valley at Via Palazzo in Cividate Camuno
- New archaeological finds²⁹⁹ as well as the discovery of more engravings in the form

²⁹⁴ POGGIANI KELLER 2009b, 91-3.

²⁹⁵ POGGIANI KELLER 2009b, 93.

²⁹⁶ POGGIANI KELLER 2009b, 92 & 94.

²⁹⁷ POGGIANI KELLER 2009b, 85.

²⁹⁸ <https://www.ccsip.it/wp-content/uploads/2024/04/sc5.pdf> (22 May 2026).

²⁹⁹ POGGIANI KELLER 2000.

of 16 intermediate style daggers below the well-known Halberds³⁰⁰ at the Boulder at Corni Freschi helped better identify it as another valley floor copper age sanctuary. These discoveries can help create the background and context of everyday life in Valcamonica during prehistoric times, but keeping the focus of this project in mind, the most important findings were the discoveries made at Massi di Cemmo during this period.

There were a series of campaigns that took place at the site of *Massi di Cemmo* between the years of 1981-2 and the end of this period and continuing into the next. They provided a lot of scientific information and gave scholars a much clearer view of what Massi di Cemmo would have looked like at the height of its use all the way through to its eventual decommissioning as a sacred site. The table below provides the year(s), name of the campaign director and a short summary of the findings.

Excavation Year(s)	Findings
1981-2 Director: Raffaele de Marinis	During construction on a new road up the hill behind the Cemmo boulders begins, 2 new stelae are discovered and named “Cemmo 3” and “Cemmo 4.” Each stele has multiple phases of engraving that appear similar to those on the Massi di Cemmo.
1983 Director: Raffaele de Marinis	After the findings of the previous year, six test trenches were dug around the area of Massi di Cemmo to try and discern the limits of the sanctuary. Five of six trenches show no anthropological disruption, while one trench shows evidence of a terrace with added sherds of medieval or Renaissance era pottery. The find spot of “Cemmo 3” and “Cemmo 4” is reexamined and it is determined that the stelae were a secondary deposition and seemingly placed there naturally through weathering and erosion. “Cemmo 3” is now more thoroughly stylistically dated.
1984 Director: Raffaele de Marinis	Excavation occurred behind “Cemmo 1” in an effort to better acclimatize the boulders, as well as to investigate the stratigraphic sequence. As a result of this dig, archaeologists found evidence of human manipulation of the soil behind the boulder, but no artifacts. “Cemmo 4” is more thoroughly examined and dated; it is determined to have been part of a larger boulder at some point. Both stelae found may indicate a larger complex than what is currently known about.
1994 Director: Raffaella Poggiani Keller	This campaign entails the investigation of a wide trench that may be a medieval mule track found by geoscientists. A medieval terrace was found and dated using coins, as well as a very small material layer of protohistoric age. Findings of that layer included Iron age terracing/a megalithic alignment headed in the direction of the boulders as well as a fragmentary Stele aptly named “Cemmo 5.”

³⁰⁰ POGGIANI KELLER 2006.

<u>1999-2000 Season</u> Director: Raffaella Poggiani Keller	This is arguably the most important season of digs as core samplings from around “Cemmo 1” and “Cemmo 2” lead to the finding of the so-called “Stelae Pit,” as well as a wall built in the Late Bronze Age. The “Stelae Pit” contained five ‘decommissioned’ stelae, as they were lovingly buried and covered in pebbles during the Late Roman/Early Medieval period as determined by pottery sherds found in the hole. The Bronze Age wall was found to curve around “Cemmo 1” and “Cemmo 2” seemingly creating a sacred space for the sanctuary. It is wider at the bottom and thins as it rises, showing signs of multiple reconstructions throughout its lifetime, ending as just a small platform above the ground in Roman times.
2002-2005 Director: Raffaella Poggiani Keller	Continued excavations of the sanctuary produce more interesting findings. There appears to be 3 plow furrows dated stratigraphically to the Copper Age, created to curve around “Cemmo 1” and “Cemmo 2” which could be argued is the sanctifying action of the space. The base of the Bronze Age wall was located, and within it were more stelae, some <i>in situ</i> and other placed purposefully face down on the ground, seemingly to sanctify the ground after many years of disuse.

(All information from this portion comes from the *Notiziario della Soprintendenza Archeologica* of Lombardy, which the Author summarized in boxes labeled by year/s.)³⁰¹

As it is clear to see, scholars made significant headway on not only understanding Massi di Cemmo and its uses, but also what life in the Copper Age and Earlier may have looked like. Reintroducing the history of the people and the land that had been so long forgotten in favour of engravings. This mix of science and imagination continues to inspire new scholarship moving forward.

3.7 The Growth and Context Years (2005 - Today)

In this final time period, one can see the extension of the changes made during the previous period.³⁰² Excavations are using new tools to collect more data and gain a more in-depth view of the sites being worked on. This includes image editing software, the creation of 3D models of stelae by combining multiple forms of primary and secondary recording forms to ensure accuracy,³⁰³ using drones to get aerial footage, and so much more. The reason for the name “Growth and Context” for this time period is the decided turn away from examining ONLY rock art which had been the key focus for scholars for many years. Due to new technology and methods, 21st century scholars are able to glean a lot more information on the lives of prehistoric peoples through different forms of dating, floral and faunal situations, geographical and geological locations and many other types of evidence that would have been too small to be useful in the past. As a result, researchers today are able to focus on giving insight to significant sites and recontextualizing previous discoveries. Despite these changes, two things remain the same, the hard work of scholars with the support of the Superintendency and the continued valorization of Valcamonica.

³⁰¹ https://archeologiainlombardia.cultura.gov.it/?page_id=43. (22 May 2026).

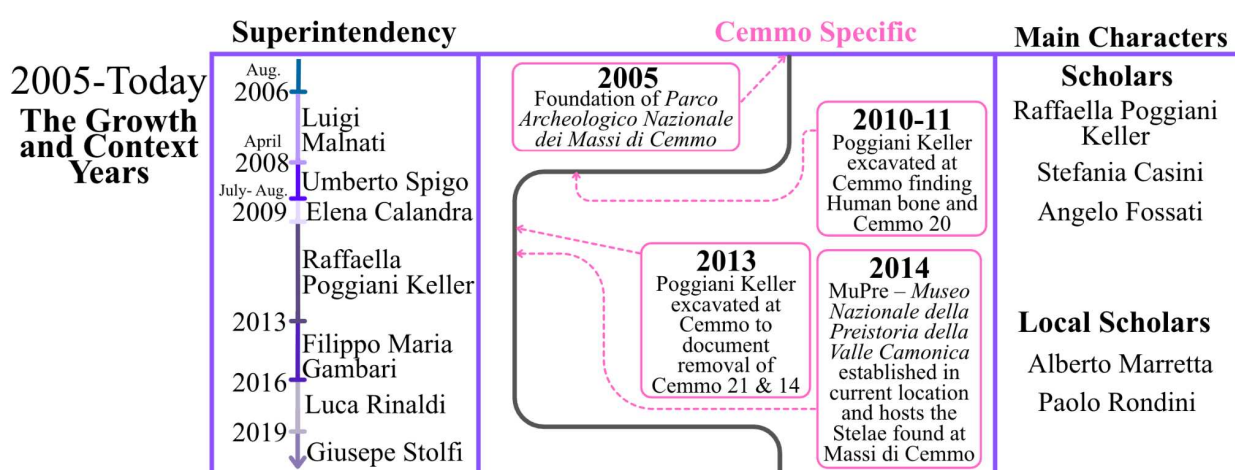
³⁰² Visit Appendix B for the entire Timeline Infographic placed in chronological order.

³⁰³ RONDINI 2018, 267-8.

On 6 October 2005, the new and improved *Il Parco Archeologico Nazionale dei Massi di Cemmo* was inaugurated. In its renovation, it had undergone massive changes, from the creation of a leveled path to the installation of informational signs, and finally to the sanctuary itself which had been levelled in a way that exposed the Bronze Age Wall, as well as the Stelae Pit. These updates did not stop the archaeological work being done to the site, which can be seen in the findings reported by *Notiziario della Soprintendenza Archeologica* of Lombardy which are summarized below.

Excavation Year(s)	Findings
<u>2010-2011</u> Director: Raffaella Poggiani Keller	This digging season is another that is extremely important as evidence found could show the timeline of the site was pushed back several thousand years. Stone tools of the Sauveterrian facies variety prove early mesolithic frequentation, and evidence of a sunken oval structure inside of which was found pottery sherds of the Vasi a Bocca Quadrata (V.B.Q.) culture that can then be dated to the Neolithic. This dig also found the only piece of human bone ever found at Cemmo, set very carefully and deliberately in front of a fragmental stele called “Cemmo 20.” The ‘cobbled’ floor on which the bone was found contained sherds of vase from the Bell Beaker culture dating this portion of the site to the end of the Copper Age.
2012-2013 Director: Raffaella Poggiani Keller	The goals of this excavation were to determine the stratigraphic sequence of an area (Sector E) which had been lightly explored in 2009, ³⁰⁴ as well as documenting the removal of “Cemmo 14” and “Cemmo 21” which were being brought to the MuPre museum in Capo di Ponte.

(All information from this portion comes from the *Notiziario della Soprintendenza Archeologica* of Lombardy, which the Author summarized in boxes labeled by year/s.)³⁰⁵



³⁰⁴ No evidence of this dig appears on the Superintendency’s website, or in their newsletters.

³⁰⁵ https://archeologiainlombardia.cultura.gov.it/?page_id=43 (22 May 2026).

Beyond the dedication of *Il Parco Archeologico Nazionale dei Massi di Cemmo* and the yearly seminars hosted at the CCSP, on 10 May 2014 the *Museo Nazionale della Preistoria della Valle Camonica* (MuPre) was inaugurated as an integral part of the continued dedication to the valorization and public education of the prehistory of Valcamonica.³⁰⁶ This museum, “housed in the ancient building of Villa Agostani, in the historic centre of Capo di Ponte, once the site of a bishop's seminary and dating back to the 16th century,” now plays host to multiple collections of artifacts organized by location.³⁰⁷ These collections include, the stelae found at Cemmo, Bagnolo, Ossimo-Pat and other sites, grave goods from Breno, Neolithic Pottery and other objects found during excavation at sites around the valley.³⁰⁸ Beyond the continuously displayed collections, there are also special exhibits that change depending on new findings on the top floor of the museum, such as the *4.000 ANNI A DOS DELL'ARCA* exhibit, which explores the evolution of life on the hill of Dos dell'Arca, as well as three other hills nearby (Piè, Fondo Squaratti, and Quarto Dosso).³⁰⁹

3.8 What Next?

This chapter was created to give a better understanding of the historical context of both the research done in Valcamonica, as well as the ways in which people have attempted to publicize and valorize the valley. This then begs the question: What Next? The rest of this thesis will focus solely on *Il Parco Archeologico Nazionale dei Massi di Cemmo* (moving forward will be referred to as *Cemmo* or *Massi di Cemmo*), and what it looks like, what it does well in terms of connecting with visitors, how it relates to the UNESCO management planning document, and what could be enhanced to modernize it. Suggestions will be made with the understanding that they were created using educational best practices, insights from other parks with similar contexts (prehistoric rock art sites that have a cultic/ritual element), experience and a focus on accessibility for all. The goal is to use new tools, technology and insights to heighten public understanding and awareness of *Cemmo*, while keeping all of the features that have been preserved that make it unique.

³⁰⁶ POGGIANI KELLER 2017, 3.

³⁰⁷ <https://museilombardia.cultura.gov.it/musei/mupre-museo-nazionale-della-preistoria-della-valle-camonica/> (Accessed April 26, 2026).

³⁰⁸ <https://museilombardia.cultura.gov.it/en/museums/mupre-museo-nazionale-della-preistoria-della-valle-camonica/> (22 May 2026.)

³⁰⁹ <https://cultura.gov.it/evento/4000-anni-a-dos-dellarca-una-mostra-archeologica> (22 May 2026).

4 *Parco Archeologico Nazionale dei Massi di Cemmo* as it Exists Today

On a blustery October day in 2005, the *Parco Archeologico Nazionale dei Massi di Cemmo* was inaugurated. Though the boulders of Cemmo and the surrounding meadow had been set aside to be preserved before this moment, it was at this point that they became a national park. The park itself is around 1 hectare in size, includes signage, reconstructed terraces and access to the sanctuary as it may have looked during the Late Bronze Age (minus the alignment of Stelae) and is fenced in on all sides for its own protection.³¹⁰ This section will explore *Massi di Cemmo*'s relationship with the other parks in the valley due to its UNESCO status, as well as what the physical space looks like to visitors today.



S4.II Inauguration of *Parco Archeologico Nazionale dei Massi di Cemmo* on 6 October 2005

4.1 *Cemmo*'s Relationship to the UNESCO site no. 94

Though *Archeologico Nazionale di Massi di Cemmo* is seemingly self-contained within the fences that protect the site, it is important to point out that the site is just a small part of the larger UNESCO Site No. 94 "Rock Art of Valcamonica." Site No. 94 encompasses several smaller regional parks including:³¹¹

- *Parco Nazionale delle Incisioni Rupestri* (Naquane)*, Capo di Ponte
- *Parco Archeologico Nazionale dei Massi di Cemmo**, Capo di Ponte
- *Parco Comunale di Luine*, Darfo Boario Terme
- *Parco Archeologico Comunale di Seradina-Bedolina*, Capo di Ponte
- *Parco Comunale di Sellero*
- *Parco pluritematico del "Còren de le Fate"*, Sonico
- *Riserva Regionale delle Incisioni Rupestri di Ceto*, Cimbergo e Paspardo³¹²

These sites are located throughout the valley, and all fall under the UNESCO management plan for Site No. 94. This management plan covers a series of collective goal categories for the sites mentioned above like accessibility, valorization, restoration and preservation, community involvement and others. Challengingly due to the reality that all sites are

³¹⁰ <https://museilombardia.cultura.gov.it/en/museums/parco-archeologico-nazionale-dei-massi-di-cemmo/> (22 May 2026).

³¹¹ *National Parks, all others not marked with a star are municipal, regional, or a mix of various types of ownership.

³¹² POGGIANI KELLER *et al.* 2009b, 233-6.

managed differently due to their various types of ownership, the way in which these goals were approached, met or failed, depends on location. Expanding on that, each site also has very different physical geography and contextual history meaning that there is no single



S4.I2 Entrance of *Massi di Cemmo*
picture taken by ML 10/04/2026

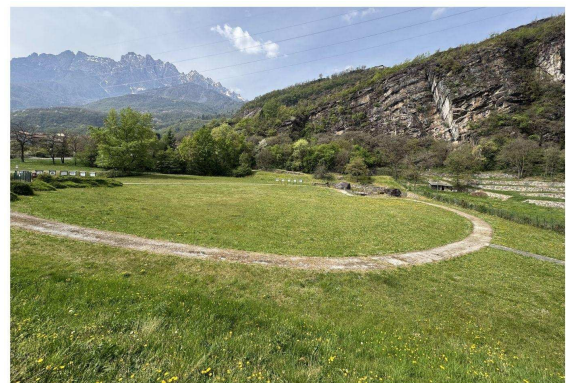


S4.I3 Entrance of *Seradina-Bedolina*
picture taken from Google Earth circa 2017

solution to a goal that will fit all sites. Take the goal of greater physical accessibility to sites. One way this is addressed is through the expansion and modernization of the Brescia-Iseo-Edolo rail route, as well as the addition of clear rock art pathways and signage at train stations along the route.³¹³ Though this portion of the 2007 Management Plan addresses the fact that there is a “general remoteness” ascribed to the archaeological sites in the valley, it does not change the reality of accessibility. *Massi di Cemmo* has paved roads leading all the way to the site, whereas the entrance of *Seradina-Bedolina* is located up a steep and not accessibility paved path. These sites are very near each other but have completely different needs in terms of the mobility required to access them. This differential highlights just one of the reasons why this project is not focusing necessarily on using the UNESCO management plan as a measuring stick of success in terms of making *Massi di Cemmo* available for visitors today.

4.2 What Visitors See at *Cemmo* today

Upon walking up to the site, visitors are greeted by 3 main natural features: the grassy meadow that makes up a majority of the park, the two large boulders seemingly situated, at the base of a sheer cliff. This unique and historically important location within the “small valley of Pian delle Greppe,” a glacially created hollow, amplifies the sounds of bird song and insect chatter which fill the former sanctuary.³¹⁴ Depending on the time of day and season, visitors may enter and see fog slowly lifting off the grass, or feel warm breezes that smell like



S4.I4 The Main Natural Features of *Massi di Cemmo*
the meadow, the boulders and the cliff

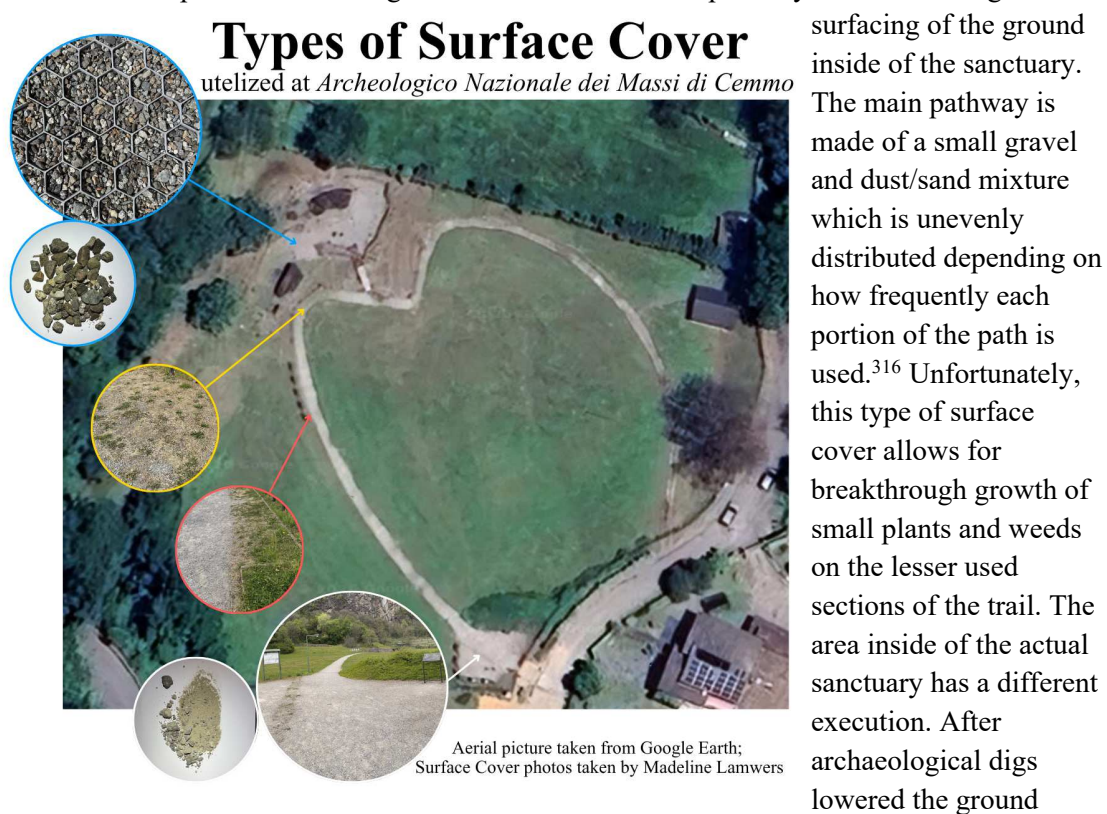
³¹³ POGGIANI KELLER *et al.* 2009b, 242.

³¹⁴ Signs at Massi di Cemmo

warm grass.³¹⁵ If they turn around, so their backs face the entrance, there is a sweeping view of Valcamonica, and if they arrive early enough they may have the chance to see the atmospheric phenomena described by locals as “the spirit of the mountain.” What one cannot see at first glance, is how much the landscape of the park has been changed to make it appear closer to what it may have previously looked like. As discussed in the previous section, the area the park now sits had once been a vineyard in the early 20th century, and before that, intensive terracing had been built to sustain different forms of cultivation. After many archaeological digs and conservation efforts, the *Massi di Cemmo* that exists today has been heavily enhanced for the benefit of visitors from around the world.

4.2a Changes made for Visitor Enhancement

As previously mentioned, the site of *Massi di Cemmo* has been heavily modified for human use for a very long time. The most recent and extensive modification came when preparing the site for use as a national park, specifically in order to try and restore some of its previous ambiance as well as make it accessible to visitors. The first and most obvious way this was accomplished was through the creation of the main pathway and the leveling and



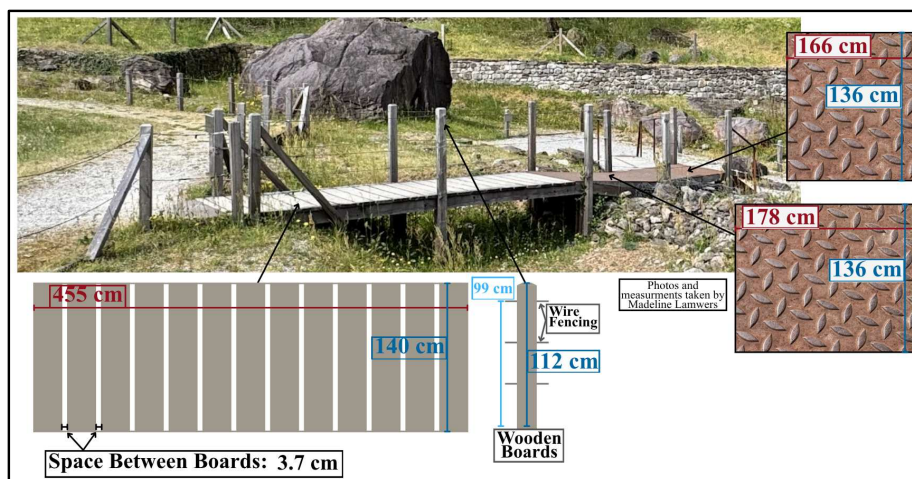
level within the Bronze Age walls to that of the period of Mesolithic use, a hexagonal mesh

³¹⁵ When interviewing people about their experiences and feelings while visiting *Massi di Cemmo*, one repetitive observation was a type of soft but all-encompassing silence, something that seemed beyond the physical location. This sensory experience is something I have heard described in the past as feeling ‘the History’ or the ‘weight of human consciousness/activity’ that exists in a space.

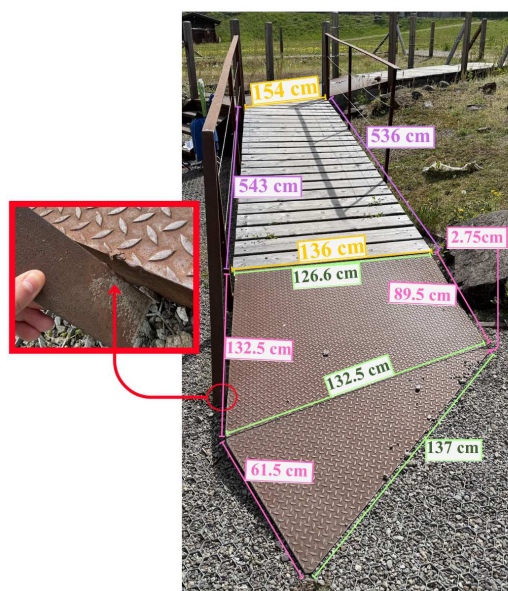
³¹⁶ This shows that the entrance and the pathway up until Cemmo 2 is the area most frequently used.

was introduced to create a more level surface. Medium sized gravel was then placed over the mesh, filling in the hexagonal holes to provide stability and fill in any dips in the ground to further level the surface. This level surface was very important for the next major alteration, the creation and inclusion of the bridge over the Stelae pit and the ramp into the sanctuary.

To make *Massi di Cemmo* accessible to everyone, while maintaining and protecting the integrity of the Bronze Age wall a 'bridge' made of wood and sheet metal was made.³¹⁷ The 'bridge' itself ends with three stairs made of



textured sheet metal with a high iron content that descend into the center of the sanctuary as laid out today. Beyond providing a way to get into the site, it also offers visitors a view from above of the Stelae pit, as well as the inside of the Bronze Age wall without disturbing either. The railings on this portion are made utilizing support poles with thin wire suspended



between them. This form of railing is okay for keeping people out of areas they should not be, but may not effectively prevent people from falling and hurting themselves due to the lack of tension in the wire making it harder to effectively grab while falling. There is also a gap between the bottom wire and the bridge large enough for a child to slip through, on purpose or by accident. In addition to the metal stairs, there is also a ramp built for those with mobility issues in mind. Instead of being directed to the center of the site, the ramp lets users out directly in front of Cemmo 2. The top half of the ramp is made of wood similar to that of the bridge, while the bottom is made with textured sheet metal like the stairs. Both the 'bridge' and the ramp have a railing, though the ramp's is more robust in most places, as it is made of metal

and welded onto the ramp or its supports.³¹⁸

The final large modification made for visitors is the inclusion of informational signs. There are 12 signs all together, 11 informational signs, and 1 sensorily accessible sign. The

³¹⁷ Though I describe the wooden portion of the accessible ramp into the sanctuary as a 'Bridge' it could be more accurately described as a 'partially suspended boardwalk.'

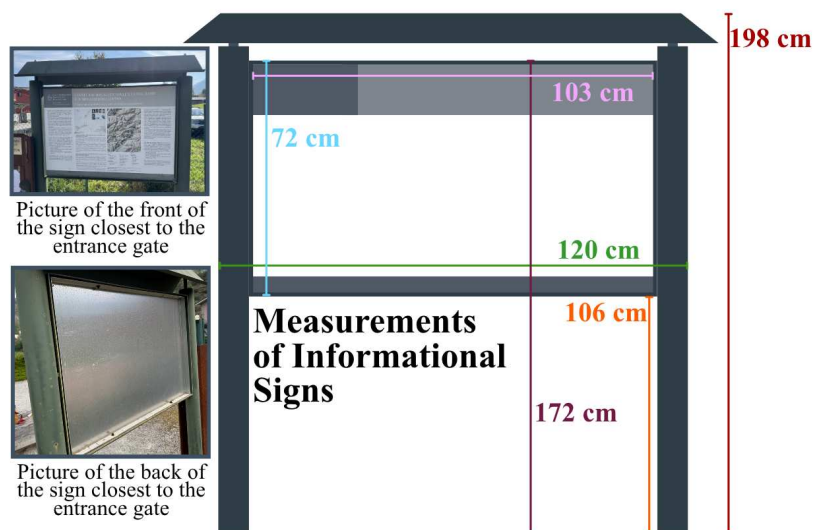
³¹⁸ Unfortunately, the final railing support rusted off of the bridge, making the railing itself less strong.

latter sign was not there when the park opened in 2005 and contains a raised park map that is articulated in braille as well as English and Italian. The creation of this accessibility feature was highlighted as a goal in the 2007 UNESCO Management plan and now exists on site today.³¹⁹ It also contains a

QR code that links to a sign language interpretation of the site which comes with audio and closed captions in English and Italian hosted on Google Drive.³²⁰ All 11 informational signs are made of metal with printed graphics and stand about two meters tall with a small roof to protect the ink from weathering.³²¹ The six informational signs closest to the entrance provide background on the geology

of Pian delle Greppe, a general timeline for activity at the site up until the Roman period, a timeline of ‘discovery’ and the archaeological research that had been done at the site since the signs were last updated. The additional 5 informational signs are located on the path closer to Cemmo 2 and contain more specific information about the physical changes that happened in Pian Delle Greppe, the stelae/other artifacts found during archaeological digs and tracings of Cemmo 1 and 2 with specific explanations. These signs are all in both English and Italian, including the captions for photographs.

Beyond these large alterations for visitor enhancement there are also modifications made for securities sake. This includes the introduction of video cameras to deter vandalism and to generally watch over *Cemmo*’s well-being. These cameras send information to the lodge at Naquane, which acts as the headquarters for personnel in charge of round the clock surveillance for the control and protection of the national parks located in Capo di Ponte. There is also an emergency button to open the primary entry gate (as the other gate is used only for maintenance and is not mechanized) located behind the bench near the entrance gate. It has instructions in both English and Italian on how and when to use the emergency button, as well as the phone number for Naquane if it is not working. The second largest of these alterations is the small house like structure situated



S4.15 The Emergency Release Button to open the gates in case of emergency

³¹⁹ POGGIANI KELLER *et al.* 2009a, 261.

³²⁰ It must have been made after 2014, as it mentions the specific rooms located in the current MuPre museum.

³²¹ Specifically, Sun damage due to their exposed location in the meadow

in the north-eastern corner of the site which is used as storage for items needed to maintain upkeep of the site. It also has a fire extinguisher attached to the outside of the building in case it is needed by visitors during an emergency. Finally, the most significant security modification are the fences that surround and protect the site. The large green perimeter fence protects the park when it is closed from vandals or others who wish to do it harm. There are also smaller fences within the site to keep people off of or from touching important artifacts like the Bronze Age wall, or the carvings on Cemmo 1 and 2. These fences are much smaller and far less of a deterrent than the larger green perimeter fence, but act more as a reminder for visitors to keep their distance to protect themselves and the site.

4.3 The *Cemmo* of the Future

As it is clear to see there have been a lot of changes made to *Massi di Cemmo* to make it the site seen today, but maybe there is room for improvement. It has been 21 years since the park first opened and though various updates have been made during this time, there is still space to expand and enhance the visitor experience. By consolidating, updating and reassessing, information at and the valorization of *Cemmo*, those who visit will be able to interact with and understand this important prehistoric site on a deeper and more factually accurate basis. Before continuing on to suggestions for updates at *Massi di Cemmo*, there are several important ideas/concepts that need to be considered, which will be explored in the next section.

5.1 Accessibility Standards in Italy at the founding of *Parco Archeologico Nazionale di Massi di Cemmo*

Before starting with suggestions in earnest, it is important to understand how what is considered “accessible” has changed since the opening of *Parco Archeologico Nazionale di Massi di Cemmo*. A lot has changed in the last 20 years, in terms of technology, politics, and standards of inclusion and as a result it is important to understand what the term accessibility means in the context of *Massi di Cemmo*, the laws that governed it at the time of its opening, and how those laws have changed over time.

5.1.a What is Accessibility?

The answer is, as always, complicated. At its very core, accessibility is about the capability of someone to do something. It is a very simple concept, and over time this definition has evolved and taken on new meanings. In regard to public policy, the definition is different, as it is contextual and requires application to disabled people.³²² Accessibility in the context of disabled people, is defined by different models of disability:

“Disability models guide our reactions to body and brain differences and serve as maps that inform how disabled and non-disabled people interact with one another in society, with significant consequences for both groups.”³²³

Essentially, in this project’s context, how disability is defined changes the definition of accessibility and also the care and time put into creating reasonable accommodations. The EU uses the United Nations definition of disability, which is labeled the Human Rights Model of disability.³²⁴ This definition is expressed in Article 1 of the United Nations Convention on the Rights of Persons with Disabilities, and states:

“Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.”³²⁵

This model is not helpful for this project, as it implies that it is the disabled person's problem to figure out how to interact with society in an equal way. It harkens back to a time when disability was synonymous with a problem in need of a solution, an idea that sees people as inherently less than for having needs. This way of thinking is not useful when designing

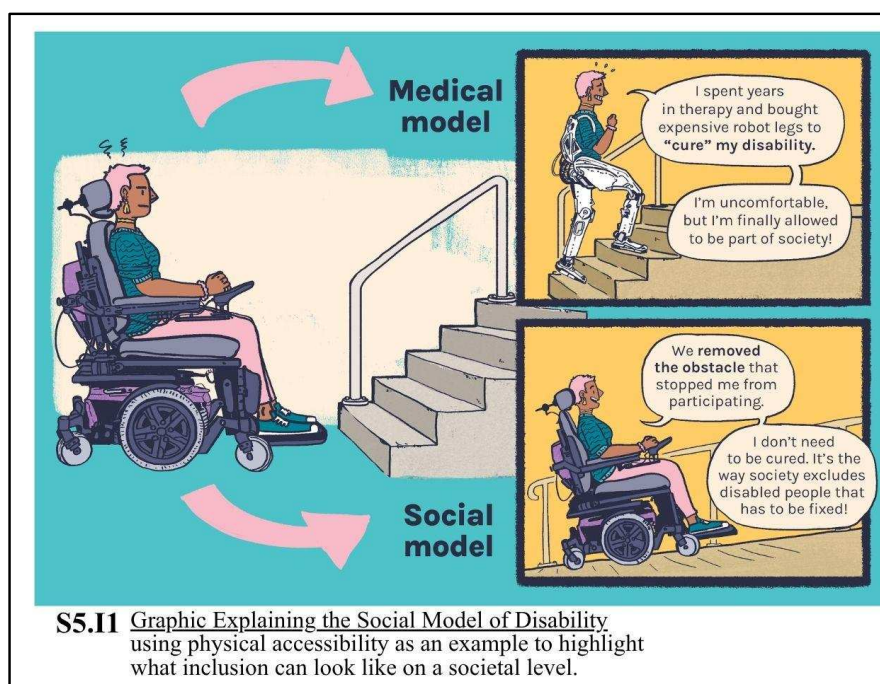
³²² Multiple polls have shown that disabled people prefer to be called disabled. As a disabled person myself, I feel as though this definition gets to the point fastest and isn’t dehumanizing.

³²³ ZAKS 2024, 3235.

³²⁴ ZAKS 2024, 3246.

³²⁵ https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=_en (Published 13 Dec. 2006).

educational materials meant for everyone, as the ‘burden’ of universal accessibility falls on the shoulders of the designer. In education, the social model of disability is the one most



frequently used which is defined by the idea that barriers, physical or legislative or something else, that are created by society are the problem, not people.³²⁶ By understanding that society is what creates the barriers to accessibility, it can then be extrapolated that society can also

remove said barriers. Or if the obstacles cannot be removed, then society must design around them in a way that benefits everyone. In a perfect world, everything would be built with ‘Universal Design’ in mind as recommended by the United Nations Convention on the Rights of Persons with Disabilities.³²⁷

All of this is to say that the understanding of accessibility is distinctly tied to a community's conception of what it means to be disabled, so to avoid future problems and ensure the greatest participation possible, one must design a space to meet the needs of everyone as much as is plausible.

Moving forward it is important to keep this idea of universality in mind. *Massi di Cemmo* is a national park, so it is important that it is available to all Italians, and to a wider extent, anyone who chooses to visit. This encompasses not only physical and sensory accessibility, but educational as well, as a person cannot fully understand the importance of the park by just witnessing it and knowing nothing of its past.

5.1.b Accessibility Standards Prior to 2005

The United Nations Convention on the Rights of Persons with Disabilities above, it was not actually signed until after *Parco Archeologico Nazionale di Massi di Cemmo* was

³²⁶ LECERF 2025, 2.

³²⁷ https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=_en (Published 13 Dec. 2006).

created in October of 2005. Before the general adoption of this treaty, the EU and its individual member states used what disability laws they already had on the books. In the case of Italy, this was Legge 5 febbraio 1992, n. 104, or “Legge-quadro per l'assistenza, l'integrazione sociale e i diritti delle persone handicappate.”³²⁸ What is important to note about this 1992 law in the context of this project is Article 23: “Rimozione di ostacoli per l'esercizio di attività sportive, turistiche e ricreative” which pertains to the accessibility of touristic and recreational activities.³²⁹ This portion of the law primarily focuses on sports, but it does make it clear that any public spaces available to anyone should use accessible architecture. The next section, 24: “Eliminazione o superamento delle barriere architettoniche,” is also important as it deals with said architectural barriers.³³⁰ In 2005 subsection 5 would have been the most relevant as it declares that all public works need to be designed to be physically accessible to align with national laws.³³¹ These two sections required *Parco Archeologico Nazionale di Massi di Cemmo* to be physically accessible to everyone, but what is not addressed under this law is the accessibility of information located on site. The section on Education (Article 12) only refers to schools or mandatory education, and the section on Communication and Information (Article 25) is largely about helping disabled people have physical access to radio and TV. This is concerning for a multitude of reasons including the fact that there is a heavy emphasis on integration into society, something that cannot be done without general access to information and that most information available at Italian historic sites is available physically on paper or signage, not something covered by the law.³³²

The other dynamic that needed to be considered when building *Parco Archeologico Nazionale di Massi di Cemmo* was that it would be part of the larger UNESCO site that encompasses Valcamonica. This was important as UNESCO sites have rules of their own when it comes to accessibility due to the fact that they are *world heritage* sites. These accessibility guidelines were further enunciated in the *Arte Rupestre della Valle Camonica, sito UNESCO n. 94, 2005 Piano di Gestione*, which was published in 2007 and as a result they will be discussed further in the next subsection.

5.1.c Accessibility Standards from 2005 to the 2020s

From 2005 to the 2020s, there have been many changes in accessibility standards in Italy, and more importantly, in larger multinational organizations like the European Union and the United Nations. These changes were caused by a continuing evolution of thought on the rights and personhood of disabled people world-wide, but more specifically in the West. This subsection will discuss the United Nations Convention on the Rights of Persons with

³²⁸ G.U. n.104 DEL 17-02-1992 (pg. 1)

³²⁹ G.U. n.104 DEL 17-02-1992 (pg. 11)

³³⁰ G.U. n.104 DEL 17-02-1992 (pg. 12)

³³¹ G.U. n.104 DEL 17-02-1992 (pg. 12)

³³² Article 8 talks about integration, but this law is far too vague and leaves a lot of room for exclusion and exploitation. Not to say that American laws are any better, it is just a mite concerning that the law on rights for some of the most vulnerable populations in this period are not longer than 21 pages.

Disabilities and what this and other international legislation has to do with accessibility at tourist destinations and/or leisure locations.

United Nations Convention on the Rights of Persons with Disabilities

One of the most important legal documents (in this case a treaty) to do with disability world-wide was, “The Convention on the Rights of Persons with Disabilities and its Optional Protocol (A/RES/61/106) [which] was adopted on 13 December 2006 at the United Nations Headquarters in New York, and was opened for signature on 30 March 2007.”³³³ This treaty was and remains incredibly important as it provides a very basic framework for countries to follow on the rights of disabled people.³³⁴ The Convention on the Rights of Persons with Disabilities (CRPD) offers a lot of meaningful ideas, but the three that are most important are: An internationally recognized definition of disability, a list of agreed upon general principles, and reasonable obligations for member states to enforce.³³⁵ The Italian delegation signed this treaty and the Optional Protocol on 30 March, 2007, and both were then ratified by the Italian government on 15 May, 2009.³³⁶

Disability and Tourism

In regard to tourism, the most important thing to consider when including disabled people in all parts of society, is whether or not something/some place is truly accessible to all. By 2018, all member states of the EU had adopted and ratified the CRPD, creating an obligation to implement various policies and practices outlined in said treaty.³³⁷ This is important to remember when discussing the accessibility of touristic sites like Massi di Cemmo, because Article 9 (Accessibility) of the CRPD promises,

*“States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas.”*³³⁸

At its core, this Article is calling for both physical and informational accessibility for all public spaces that can be used by anyone, including tourist sites/locations. As for Italian specific laws, there is the *Codice dei beni culturali e del paesaggio* [Cultural Heritage and

³³³ UN GENERAL ASSEMBLY 2007.

³³⁴ Of course, because this is a UN treaty it is not super enforceable so there is that to consider when discussing its effect. What can be said is that for a lot of countries, this was the first time in which the rights of disabled people were defined and written down in a way that saw disabled people as human.

³³⁵ G.U. n.104 DEL 17-02-1992

³³⁶ https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=_en. (Published 03 May 2008).

³³⁷ LECERF 2025, 6.

³³⁸ G.U. n.104 DEL 17-02-1992 (pg. 13-4)

Landscape Code], a portion of Legislative Decree n. 42 established on 22 January, 2004.³³⁹ This decree has since been updated, most recently in 23 April, 2008, to clarify its purpose and add language relating to accessibility of Cultural heritage for disabled people. It specifically redefines *Valorizzazione* [Enhancement] to include a section that identifies, “...assicurare le migliori condizioni di utilizzazione e fruizione pubblica del patrimonio stesso, **((anche da parte delle persone diversamente abili,))**...” [...ensuring the best conditions of the heritage itself for the use and enjoyment of the public **((including people with diverse abilities,))**...] ³⁴⁰ as part of that process. This change shows progress towards greater accessibility for all, the rest of the legal document does not seem to offer explicit guidelines for what *Valorizzazione* [Enhancement] in the context of Part 1, Section 6 should look like.

Beyond the CRPD, accessibility has become a larger policy focus following the 2020 COVID-19 pandemic, when access to information and physical locations became a problem for everyone and not just Disabled People.³⁴¹ As a response, the EU created the Next Generation EU (NGEU) initiative which was implemented in 2021 as a long term response to the pitfalls in governance highlighted by the COVID-19 pandemic. Each member country created their own version of NGEU, Italy’s was the *Piano Nazionale di Ripresa e Resilienza* (*#NextGenerationItalia*). To address issues of accessibility this plan has a subsection titled “Equal Opportunities for People with Disabilities,” and within this portion are two missions pertaining to the accessibility of Italian Cultural Heritage.³⁴² Mission 1 is to remove architectural and sensory barriers from places like museums, archives, libraries, etc. as a way to make Italian cultural heritage more accessible to all Italians.³⁴³ Mission 2 and 3 are related to making public transit more accessible to disabled people can get around Italy easier.³⁴⁴ Together, these goals promote larger scale integration of disabled people into the tourist economy and attempt to provide more opportunities to interact with Italian cultural heritage by removing barriers. While this document does not address informational accessibility for disabled people, being able to physically access a location goes a long way in helping people learn about it.



³³⁹ Art. 6, D.Lgs. n. 41/2004 (It.).

³⁴⁰ D.Lgs. n. 41/2004 (It.).

³⁴¹ LECERF 2025, 10.

³⁴² https://www.governo.it/sites/governo.it/files/PNRR_3.pdf. (Accessed 22 May, 2026), pp.44-5.

³⁴³ https://www.governo.it/sites/governo.it/files/PNRR_3.pdf. (Accessed 22 May, 2026), pp.45.

³⁴⁴ https://www.governo.it/sites/governo.it/files/PNRR_3.pdf. (Accessed 22 May, 2026), pp.45.

While this section focuses on more recent laws, it is important to keep in mind that older laws have not been repealed and therefore still need to be considered while moving forward.

5.1.d The Future of Accessibility

In regard to the future of accessibility in Italy, one needs to take a look into the strategies adopted by the EU, specifically the *Union of Equality: Strategy for the Rights of Persons with Disabilities (2021-2030)*. This is a new ten-year plan created after reviewing data on the implementation of the previous (2010-2020) European disability strategy.³⁴⁵ This data review highlighted weaknesses/deficiencies that led to the previous plan failing to be completely integrated. Some specific issues were, “the lack of a comprehensive set of indicators, the absence of a framework to monitor the implementation of the strategy or the non-existence of binding links between the strategy and EU funding.”³⁴⁶ As a result, the new *Union of Equality* tries to address these weak points, and underlines new and evolving ideas like intersectionality, the diversity of disability (greater inclusion of invisible disabilities) and sustainability practices.³⁴⁷ This initiative focuses on, “Accessibility [as] an enabler of rights, autonomy and equality,” by continuing to work on creating physical access to public spaces, and building the groundwork to make online resources more available to all through the concepts of Universal Design.³⁴⁸

More importantly to this project, there is a subsection (5.5) of the *Union of Equality* strategy plan titled, “Improving access to art and culture, recreation, leisure, sport, and tourism,”³⁴⁹ that has the explicit goal of working “to make cultural heritage and all art accessible and disability inclusive with support from EU funding.”³⁵⁰ This portion of the strategy specifically calls upon member states to “make more art collections and museums accessible to persons with disabilities.”³⁵¹ This statement is very vague, but using context clues one can interpret this call to action to also include cultural heritage sites like that of *Massi di Cemmo*.³⁵² The ambiguous wording also neglects to create clear guidelines for what ‘more accessible’ actually looks like in reality, leaving the actual interpretation up to member states. While this lack of detail may cause issues in the future, this requirement is a big step forward in terms of attempting to make tourism accessible for all Europeans.

³⁴⁵ LECERF 2025, 3.

³⁴⁶ LECERF 2025, 7.

³⁴⁷ LECERF 2025, 7-8.

³⁴⁸ EU:COM:2021:101 (FINAL), pp. 6.

³⁴⁹ EU:COM:2021:101 (FINAL), pp. 20.

³⁵⁰ EU:COM:2021:101 (FINAL), pp. 21.

³⁵¹ *Ibid.*

³⁵² In doing this project and living in Italy for the last two years, it has come to my attention that when accessibility is discussed it is almost always exclusively about physical and sensory access. When things like informational access are discussed, it is usually in terms of digital accessibility, meaning that already existing infrastructure (such as signs, brochures, etc.) are not included in accessibility updates. Neglecting this part of accessibility has an outsized effect on museums, cultural heritage sites, archives and other locations where learning is based in the physical world.

5.1.e General and Legal Considerations for Imagining Updates

When discussing accessibility there are a couple of important considerations to keep in mind, as well as best practices that can help ensure changes made are usable long term. Firstly, it is vital to understand that any person can ‘become disabled’ at any time. An accident, an illness, even aging, can all generate startling life changes that make moving through the world far more difficult. So while accessibility may not be the first thought in mind at all times, it is critical to remember that disabled people make up the largest minority population in most countries and deserve the same opportunities other members of society may take for granted.³⁵³ Another idea to keep in mind when thinking about accessibility for all is a concept in education known as ‘teaching to the margins.’ Essentially the purpose of this notion is that if something is accessible to statistical outliers, then it will be accessible to those who fall in between. If time and money are devoted to discerning and carefully designing infrastructure with these needs in mind, then it will be far less likely that future expensive accessibility fixes will be needed.³⁵⁴

After reading through studies done by the EU and other multinational organisations, it became clear that a discussion on best practices when it comes to accessibility needs to be had with decision makers. The first and most important is: Talk to disabled people when designing/creating things for them. While this idea seems like common sense, the lack of input on Disability issues and policies seems to be of great concern to EU residents. One study from 2022 that interviewed disabled people about accessibility in the EU found that, “Participants often perceived that cultural policies did not include input by people with disabilities, and resulted in creating barriers to (instead of facilitating) access to culture.”³⁵⁵ By not including disabled people in the conversation, governments and other organizations may be doing more harm than help despite their best intentions. This is why it is important to collect data, or talk to an expert, or experiment, or a combination of any of these and more, before making a decision that will affect people who move through the world in a way that is different from one’s own experience. Accountability is another best practice when it comes to working with any people. In the context of accessibility, it appears that though there are laws on the books, few public institutions take their implementation seriously, and if they do, it is to the letter of the law and not with actual accessibility in mind.³⁵⁶ This leads to poorly designed and made fixes, and future problems that will need to be patched instead of building something meant to be both helpful and last.³⁵⁷ By making accountability a core practice it forces people to hold themselves and others to a higher standard, and actually do the work they were tasked with to the best of their ability and hopefully with compassion and care for their fellow man.

³⁵³ The point is to highlight that accessibility should be towards the top of the list of things to consider when building/improving public spaces because disabled people make up the largest minority population statistically and are far more likely (percentage wise) to make use of public services than able bodied people. It is also a reminder that disabled people are human, not less than, and deserve the empathy, compassion and consideration that they have historically been far less likely to receive.

³⁵⁴ PRETTO 2022, 514.

³⁵⁵ LEAHY, FERRI 2024, 2472.

³⁵⁶ PRETTO 2022, 512-3.

³⁵⁷ *Ibid.*

Beyond these more general ideas, the government's legal responsibilities to its citizens also need consideration. After reading through this section, it is clear that accessibility is an evolving idea that is influenced by many different factors. What needs to be considered for this project, specifically is one simple question: What is the Italian government legally required to do in terms of the accessibility of tourist locations?

Using the laws and legal commitments explored above, one can create a codified list of requirements that need to be addressed in order for *Massi di Cemmo* to be updated in a legally compliant manner based on a limited understanding of the laws and regulations.

1. Italian Cultural Heritage sites must be:
 - a. Physically Accessible to All
 - b. Sensorily Accessible to All
2. Italian Cultural Heritage sites must be accessible via public transportation in some form (having a bus from the Capo di Ponte train station to the site, or having a museum at the train station, etc.)

This is the complete list, meaning there are a lot of areas lacking in clear expectations. As a result of this, an additional list of considerations/goals has been created to keep in mind when designing intervention suggestions for *Parco Archeologico Nazionale di Massi di Cemmo*.

They are:

1. *Massi di Cemmo* should be:
 - a. Physically accessible to all
 - i. Keeping in mind: daily use electric/non-electric wheelchairs, canes and crutches, and chronic fatigue/pain and age (people who cannot stand for long periods of time)
 - b. Sensorily accessible to all
 - i. Keeping in Mind: Blind/vision impairment and Deafness/hard of hearing
 - c. Informationally accessible to all
 - i. Keeping in Mind: Low scientific literacy rates (people struggle to read academic writing), that it is part of a *world* heritage site (lack of background knowledge due to not being Italian), and that most visitors are children.
2. As technology advances *Massi di Cemmo* should be made more digitally accessible to all as it is a *world* heritage site, and in a less traveled and generally less accessible area of Italy.
3. In the valorization of *Massi di Cemmo* there is a fine line between the preservation and promotion of the site and the destruction of the natural beauty/importance that has kept this location significant for thousands of years.
 - a. Creating an authentic and intentional experience for ALL visitors should be the main goal

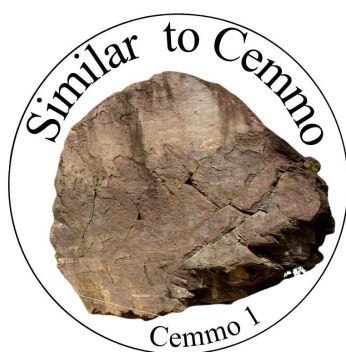
These goals are an attempt to ensure that the suggested changes to the infrastructure of *Massi di Cemmo* are flexible and resilient enough to stand the test of time while still protecting and preserving the park for **ALL**. Moving forward this project will take a deeper look into how other Parks around the world promote their rock art and what they do in terms of making it accessible to as many people as possible, in an attempt to see if there are ideas that can be used to enhance *Massi di Cemmo*.

5.2 Rock Art as World Heritage

Another idea to take into consideration before presenting suggestions for *Parco Archeologico Nazionale dei Massi di Cemmo*, is exploring how other rock art sites around the world valorize and protect their cultural heritage.³⁵⁸ The idea of reaching out to experts was not new, as it is something that is frequently done in education, specifically Special Education.³⁵⁹ This is because learning is a collaborative process, and if there is someone who understands a topic to a deeper and more meaningful level, it is the duty of a good teacher to reach out and educate themselves so that students are given the best possible information and opportunities. It is in this spirit that the decision was made to reach out to other rock art sites around the world and ask a series of questions related to protection and preservation as well as different ways to interest and educate the public. This idea became a multistep plan: first research rock art sites around the world, second, create question and email format then contact, finally organize and analyze data.

5.2.a Step 1: Planning and Research

The first step was to identify what types of sites to look for in terms of similarities to *Massi di Cemmo*. After doing some basic research, it became increasingly clear that it was going to struggle to find any sites that met the stringent criteria. As a result of this it was decided to loosen said criteria and come up with two main categories in which to place the various locations found.



The first of these categories was sites that are “Similar to Cemmo.” This means that a site is/has:

- Rock Engravings
- A Sacred/Cultic site or Elements
- Chronology of between 3,600 - 1,100 BCE
 - This is to mimic the periods in which the Cemmo boulders would have been carved.

³⁵⁸ All data discussed in this section can be found in Appendix D, this includes lists of sites contacted, their answers,

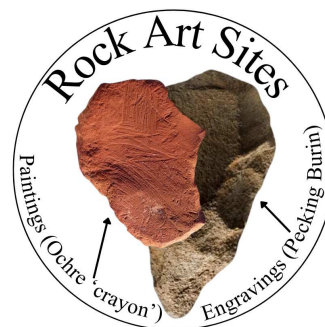
³⁵⁹ Special education in this context means working with children with disabilities of all kinds.

- Other Archaeological finds seemingly unrelated to the rock art of the site: lithic tools, fine ceramics, human remains, etc.

To be considered a “Similar to Cemmo” site, it must have at least 3 of the four elements listed above.

The second category was simply “Rock Art Sites.” To be sorted here, a site is/has:

- Rock Paintings, Rock Engravings or Both
- Chronology that is: Earlier than the site’s colonization, scientific dating from the area’s Copper Age, or from ‘time immemorial.’



Or the site must have any form of cultic/ceremonial/sacred Stelae. To be considered a “Rock Art Site,” the location must have both bullet points or the type of stelae identified above.

With these very basic categories fleshed out, there were some additional conditions that needed to be taken into consideration, specifically, living descendants, time and capacity. To begin, many of the areas rich with rock art were colonized in the last 600 years, this includes places like the Americas, Australia, and Africa. Due to this relatively recent development, many of the rock art locations are still sacred to people living today.³⁶⁰ As one can imagine, this makes land management and interpretation more challenging because there are multiple parties involved with differing ideas of how to “protect and preserve” a cultural heritage site.³⁶¹ This then becomes a matter of community relations and trust building, something that is important but not as vital in a place like *Massi di Cemmo*, because the acquisition of the land on which it lies is not directly related to the genocide of its former occupants.³⁶² These ideas of land use rights, relationships between federal governments and indigenous peoples, and when education can become harmful will be explored further later in this section.

The other aspects of this project that had to be kept in mind during this planning phase was the limited time and capacity to gather information. It is important to first acknowledge that this researcher only speaks English. As a result, the data was limited to only being able to call sites in primarily English-speaking locations, and all other sites would have to be contacted via the internet, either through email or request for information surveys. Unfortunately, many of the locations slated for contact did not have an email available to the public leading to an inability to include those on the list. Those with available emails were often government/state entities or museums/laboratories, which is important to note as it will affect the data collected, as well as its analysis. This is also where the time element becomes important as this project needs to be finished no later than May 1st and getting government/state entities to reply to emails is notoriously challenging. This time constraint meant that location choice was dependent on which sites would be able to reply in a timely manner leading to a skew in data towards the Anglosphere. In recognized National Parks and Monuments in the US, Canada and Australia, there are specific staff hired to answer

³⁶⁰ All the Rock art sites contacted in the US and Canada, as well as Australia. Sites in Namibia are a little bit different due to a different understanding of the rights of specifically protected minority groups.

³⁶¹ “To Protect and Preserve,” is a motto that frequently appears in Jr. Ranger booklets across the US, as a way to teach American kids the purpose of the National Park Service.

³⁶² OSTLER 2015.

questions and educate the public.³⁶³ Knowing this, there seemed to be a much better chance

Types of Questions Asked:

Contextual	Educational	Additional Information
- What forms of rock art exist at your site? What is their physical context? - What is the historical context of the rock art at your site? - Has the rock art been reliably dated (using scientific, archaeological, stylistic, historical or other means)? - Are there still living descendants of the original rock artists? If so, does your site have a good relationship with them?	- What type of information is available for visitors about your rock art site on location (physically at the site)? - How do you contextualize the importance of your rock art site to the wider public (who may not have a strong background in said context)? - Are there ways in which you promote your rock art site educationally (special events, displays at museums/visitor centers, tours, etc.)? - What types of information do you consider absolutely critical to have available for visitors, to help them gain a better grasp of the context of your rock art site? - How does your site preserve the natural beauty/context of the rock art's location, while still making it accessible to visitors? - How does your rock art site address accessibility (physically, informationally, sensorily, etc.) concerns? - I do understand that for some sites this is unrealistic due to location or other environmental factors, so please skip if your site is one of those - How do you get people excited about rock art?	- Am I able to cite your answers in my thesis (this can be with a specific name, or generally as I am amalgamating data from many emails)? - Do you have any other recommendations of people or parks that I should reach out to that would be willing to answer questions? - Are there any other ideas I should keep in mind while developing my thesis plan?

of getting replies from sites in the countries listed above simply because they have people on staff who are able and available to answer questions. This is not to say that other sites were not also contacted, even locations in which it could be assumed that there would be no reply.

After taking these conditions into consideration, the next step was research and where a list of 63 sites was created, over 50 of which had some form of virtual contact information. From there, the next important step was coming up with standard questions to ask to ensure the data that was received was relevant to this project and comparable between sites, the result of this was 3 categories of questions.³⁶⁴ First was contextual questions about the rock art at the site contacted; Second was educational questions which explored public relations, valorization, engagement activities and accessibility concerns; Finally was additional information questions including citation, feedback and other contact recommendations. Below are the questions that ended up being chosen, sorted into their respective categories. From this point it was time to begin the next phase of the project: contact.

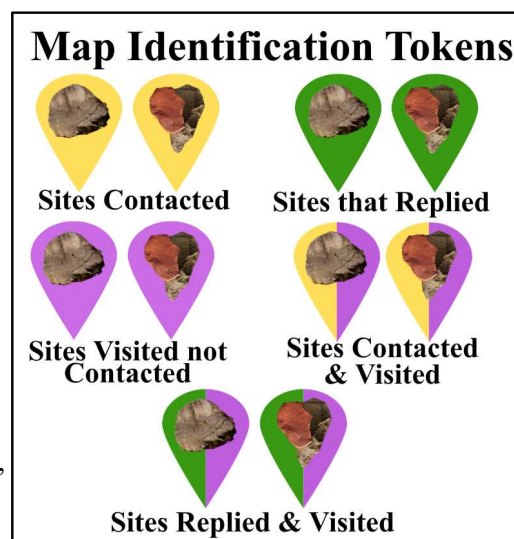
³⁶³ In the US these folks are called Interpretive Rangers as their job is to interpret their site for the general public. Interpretive Rangers can be teachers, archaeologists, biologists, etc.

³⁶⁴ Most of my questions focused on Qualitative data, so there is no way they were all going to be the same, but I wanted to guide questions in similar directions.

5.2.b Step 2: Contact

Before beginning this step in earnest, clear organization needed to take place. This was specifically so that no data was missed by accident, that the results were as clear as possible and to ensure the changing variables of this ‘experiment’ stayed as stable as possible. As a result, several organizational tools were created that were utilised throughout the rest of this process. First, a template that could be copy-and-pasted to make sending emails easier, more efficient and to ensure that all sites contacted received the same information. By the end this email was translated into eight languages: European Spanish, Portuguese, Swedish, Norwegian, Finnish, Azerbaijani, Indonesian, and Quebecois French.³⁶⁵ Next came attaching the

document containing the questions in the correct language below. These emails also included links (the words underlined and in blue) to the University of Pavia website about the “Ancient Mediterranean” Master’s program, and to the official regional website for the *Archeologico Nazionale di Massi di Cemmo*, as a way of providing more background information.³⁶⁶ The next tool created was a spreadsheet with two tabs, specifically to keep track of contact information and answers received.³⁶⁷ The first tab identified who was contacted, if they had replied, if they had replied a second time, and if they had been sent a ‘Thank you’ email for their assistance. The second tab was for the replies to the questions, so they could be kept in one location and easily compared. Finally, a map using ‘Google Maps’ was created that marked each site in which contact was attempted with a blue location pin and the name of the site. Eventually, as replies began to return, a colour coded system was created (combined with the icons for “Similar to Cemmo” and “Rock Art Sites” explained above) to help with visual organization. About two weeks after sending many emails, the data from the spreadsheets was used to replace each blue pin with a new one, using the correct colour scheme and icon. It is important to note at this time that all sites marked in purple or “Sites Visited not Contacted,” were all visited in the last eight years. This time span is significant as when these sites were visited the researcher was cognisant of their cultural value, able to participate in their educational programming, and very aware of the difficulties visiting said sites would cause for disabled people. On the other hand, sites marked half



³⁶⁵ For this I used a combination of Google translate and ChatGPT, as together they can translate the academic language pretty accurately. I also put a warning on each email saying, “English is my first language and I used translation software to create this email. If something does not make sense, or you would like to see the original English version of this email, please let me know.”

³⁶⁶ These Translations and copyable emails are available in Appendix C

³⁶⁷ This sheet is available in Appendix D as well as the replies from the institutions that did so.

purple are places that have been visited, but during a period in which the researcher was too young to take notice of issues important to this project.³⁶⁸

All that was left to do for this step was to wait for more replies and continue sending ‘Thank you’ emails they were received.

5.2.c Step 3: Data Analysis



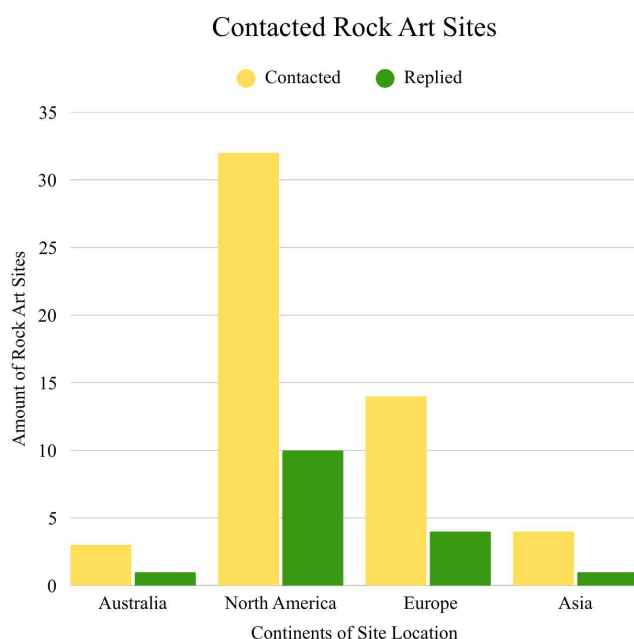
After waiting over a month, it was determined that it is unlikely that there would be any more emails in response to the questions and as a result it would be okay to begin doing analysis on the data received.³⁶⁹ Of the 54 contacted sites, 16 of them replied to the email.³⁷⁰ Of those 16, only 14 replied with answers to the questions, though all that replied were sent a ‘Thank you’ email as a courtesy. Of these 16 responses, 10 were from North America, 4 were from Europe, 1 was from Australia and 1 was from Asia. The responses from these sites are the data that will be analyzed in further detail below, after large variables that affected said data are discussed.

³⁶⁸ I want it to be very clear that for fully purple sites, I was already being trained as a teacher when I visited them and therefore, I paid attention to how I would introduce the places I visited to my students, and what it would be like to visit with them.

³⁶⁹ I did specify for some sites that the latest I was willing to accept data was April 15th, so I will be sure to update this as that date comes to pass. (Today is 06/04)

³⁷⁰ Data from these contacted sites exists in Appendix D

The most important variable to consider is bias in the matter of contact. This concept is clear to see in which sites were and were not contacted, specifically how no sites were



contacted in Africa or Latin America, and how many were contacted in North America. On the topic of Africa and Latin America, sites were not contacted for one primary reason: the sites that most closely fit the criteria didn't have (functioning or up to date) websites/email addresses/phone numbers, essentially making the sites unreachable for this (besides those that had been marked as visited).³⁷¹ As for the bias towards contacting North American sites, there are several reasons that should be acknowledged. First, is the researcher's familiarity with the American/Canadian National Park systems. Due to this background knowledge of the infrastructure of the US

National Park System (USNPS) as well as the Canadian National Park System (Parks Canada), there was a general understanding that a reply was more likely from those sites, which was proven correct. Of the 10 replies received from North America, 8 were from USNPS/Parks Canada sites or affiliates (other types of parks that fall under the purview of either country's Parks system). The other reason to highlight for this bias is that NPS sites in the US and Canada have very standardized websites with clear and frequently checked 'request for information' surveys and/or email addresses where as many of the other sites looked at (and not chosen) had not updated their websites in several years, or had no form of contact information available.³⁷² This system is directly related to the previously identified knowledgeable staff with time to specifically interact with the wider public, something that is built into the core of the USNPS and Parks Canada.

As discussed in section 5.2a, the questions were separated into three different categories (Contextual questions, educational questions, and Additional Information questions), so analysis of data will be done in three parts to go with each category.³⁷³

The first category of questions is about the context of the site, more specifically, types of rock art located on site, location and history of the rock art site, if reliable scientific

³⁷¹ I will discuss observations from these sites (marked purple on the map), but I will do my best to make it clear that they are my personal observations and not those of specifically knowledgeable sources.

³⁷² I understand that this is structurally very different and honestly unattainable for many other places in the world, but it does make getting more information very easy.

³⁷³ Due to its qualitative nature, analysis of the data received will be in summary form with specific citations/examples based on whether the point person at the site said it was okay to cite them/mention them in this thesis (one of the questions in the Additional Information section asked this specifically).

Need to Know Definitions for Park Contact Data Analysis

Petroglyph



“Petroglyphs are made by removing the outer weathered surface of rock to reveal the unweathered rock underneath. This is done by pecking, rubbing, scratching, or incising the surface with a harder rock, such as quartzite.”

Definition and picture taken from sources provided by Nez Perce National Historic Site (<https://www.nps.gov/nepe/learn/historyculture/buffalo-eddy.htm>)

Pictograph



Pictographs from Twyfelfontein, Namibia (pictures taken by Madeline Lamwers in 2023)

“...pictographs are made by painting or drawing on the rock surface with pigments. These pigments were made from minerals that could be found in the area.”

Definition taken from sources provided by Nez Perce National Historic Site (<https://www.nps.gov/nepe/learn/historyculture/buffalo-eddy.htm>)

Time Immemorial

Directly translated this means “ancient beyond time or record,” but in the context of Native peoples, this phrase highlights how the explicit past is unknown, but that there are deep, meaningful and very ancient connections between the people and their land. Essentially it means that the connection between a people and their ‘place’ extends further than human memory into a distant past.

dating has been done, and if there are any living descendants of the original rock artists. To begin, all sites have rock art of some kind, most have petroglyphs, some have petroglyphs and pictographs, and two sites (Pepeshapissinikan Rock Archaeological Site in Canada and Astuvansalmi Rock Paintings Geopark in Finland) have pictographs alone. All of their physical contexts are different, but there are two important similarities, rock art appears on both vertical and horizontal plains, and it is often done in softer rocks such as sandstone or basalt.³⁷⁴ When looking at the historical context, many sites were carved between 10,000 years ago and modern times, and almost all of them seem to have a ritual, spiritual or cultic aspect, or they were used for these purposes. This data goes hand-in-hand with the fact that most of the sites have not been scientifically and accurately dated. Sites such as Canyonlands National Park (US), the Archaeological of Dolmen de Soto (SPA) Pepeshapissinikan Rock Archaeological Site (CA) were lucky enough to be able to do Radio Carbon (C14) dating, while the best scientific dating sites like Alta Rock Carvings (NOR) and Lava Beds National Monument (US) have are based on geological data.³⁷⁵ At Astuvansalmi Rock Paintings Geopark (FIN), they use “shore displacement chronology” which compares the height of shorelines throughout time to the height of the rock paintings, which demonstrates at which

times rock art had to have been produced. Beyond these scientific methods there are the most common rock art dating methods which are based on stylistic and/or historical analysis, there is also the more indigenous and perhaps less scientific method of marking sites as dated to Time Immemorial. Finally in terms of living descendants, all of the sites that replied (or that were visited) with the exception of the European ones, have indigenous peoples still living with deep historical and spiritual connections to the sites. This context is vital to understand because it changes how sites will be valorized and protected/preserved which will be explored more in the next category of questions.

The second category of questions were about educating the public about rock art sites in both tangible and intangible ways, making it the most important section of questions for

³⁷⁴ This of course is a little bit different for sites with only pictographs as the rock doesn’t need to be as soft to ascribe art to it.

³⁷⁵ To be clear, the Geological data gained at Alta is far more useful/accurate than that at Lava Beds because it is based on Glacial retreat data which happened at a time that Homo Sapiens were in the area.

this project.³⁷⁶ The first question pertains to information that is available to visitors on site. Many sites are not accessible to visitors for various reasons (specifically the sites' sacred status to local tribes), but if there is information on-site it appears to mostly be as interpretive signs (of which several examples were received attached to emails) or booklets/pamphlets that can be picked up at the visitor center/kiosks linked with the site. Interestingly enough, two sites contacted discussed how they too were interested in updating the visitor information available at their sites, and Ranger Jeff Betteridge from Brisbane Water National Park³⁷⁷ put forth several of the same ideas that will be discussed in the following section.³⁷⁸ Despite how simple it seems, putting up signs is not without contention. Unlike European sites which reportedly cannot determine if descendants of the original rock artists are still alive, all of the other sites that replied did. This fact is important to consider when deciding what information should/should not be available to all visitors. Depending on the site and its living history there are a lot of points of contention between the government as stewards of rock art sites and local tribes. Some sites contacted were still active sacred areas and important to specific cultural rights which can have strict guidelines for who can have access to the rock art. Beyond specific cultural activities, many of the native groups affiliated with rock art sites do not want random tourists in their spiritually important places as it risks further damage (in the form of graffiti, etc.) and desecration.³⁷⁹ The next question about how sites contextualize the importance of their rock art for an unaware public highlighted some of the ways in which sites try to navigate the muddy waters of information sharing. In areas with living descendants, some sites seem to put heavy focus on preservation of the rock art rather than trying to provide contextualization, specifically emphasizing how old the site is. Other sites work closely with local tribes, serving as purveyors of contextual information, rather than providers. Ranger Krystal of Grand Canyon-Parashant National Monument enunciated a combination of these two forms of contextualization very eloquently in her answer to this question:

“The importance of preserving rock art is really what we emphasize rather than trying to connect the site to the wider public. In North America, we are primarily “colonial” archaeologists examining other peoples’ ancestors. ... Alongside highlighting the importance of preservation of these resources, we also work with these tribes to interpret the meaning of such special places. These are their stories, we simply try to provide resources, oversight, and federal collaboration to help tell their story and histories to the public...”

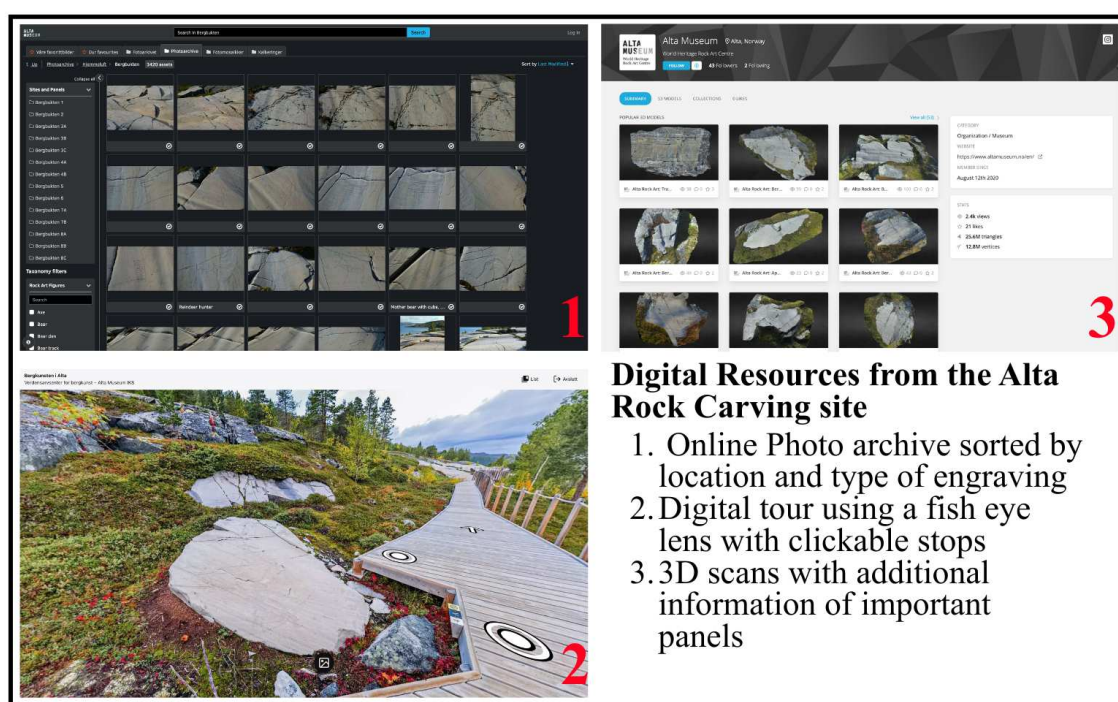
³⁷⁶ It is at this point I would like to recognize and thank Jeff Betteridge from Brisbane Water National Park (AUS), Ranger Krystal (no last name was given) from Grand Canyon-Parashant National Monument (US) and Russ Cash from Nez Perce National Historical Park (US) who went above and beyond to help me and/or provided additional resources for context.

³⁷⁷ Specifically, the use of QR codes on site so that signs do not detract from the aura of the site, while still being able to provide information

³⁷⁸ Dolmen de Soto uses QR codes already for information and booking tours. Unfortunately, the informational website has been co-opted by a woman running for state congress in the US. The website is [LINKED](#) here.

³⁷⁹ This was something that was highlighted by many of the non-European respondents, some places go so far that even the park rangers themselves do not know where the actual rock art site is.

Besides or instead of educational signage and booklets/pamphlets, some sites interpretive ranger programming (Guided hikes, Evening campfire talks, etc.), or local guides from the descendent tribes in the area to help provide information in a more ‘charismatic’ way. Another frequently highlighted way of providing interpretive information is via the internet in the form of a website, or page of a website. This approach has several positives which include that websites/articles are often in a very easy to read and access format, they do not physically disrupt the rock art, and with today’s technology a lot of very technical information can be archived and hosted for public access. The Alta Rock Carvings in Norway have put a lot of work into their virtual resources which include a robust and very easy to use photo archive of a lot of their engravings, a virtual 360° tour of the site, as well as 3D scans of the most important rock art panels.



Digital Resources from the Alta Rock Carving site

1. Online Photo archive sorted by location and type of engraving
2. Digital tour using a fish eye lens with clickable stops
3. 3D scans with additional information of important panels

The next question relates to the ways in which the respondent sites promote their sites educationally. Much like the previous two questions, it really depends on living descendants. This means that the most common answer received was that they do not promote the rock art, and sometimes keep the location specifically hidden, only known by tribal members and park staff. For the sites that fall in this category, at most they will acknowledge the rock arts existence if asked and will have further information on it on their park specific website or through a small display in their visitor centers. Other sites without specific living descendants like Alta or run mostly extra-governmentally like Twyfelfontein are able to provide interesting experiences like tours and/or demonstrations. Another question in this category asked about what information was vital for visitors to have to better understand the significance of the site. For many of the sites that replied, the indigenous history of the place, as well as the colonial history so that people can better understand why the site is special, but also why they must be protected. Many of the sites with living descendants also focus on the

fact that the cultures that created, used and found these places sacred are still living and vibrant. European sites respondents stressed the more archaeological or geological elements of their sites like dating or the age of the rock art, the environment in which it would have been made and what culture was in the area at the time of creation. Many sites also talk about how engravings were actually created (through pecking, painting, etc.), and safety in regard to helping preserve the rock art site for years to come.

Accessibility of rock art sites while still preserving their natural environments also came up in the questions for the education category. In terms of physical accessibility to sites while preserving their natural beauty, multiple locations use boardwalks or viewing platforms to preserve but also unobtrusively protect and display the art, while others use fencing of various kinds. There are also ones in which no one is told of their location, so they are able to remain hidden and preserved that way. As for accessibility in general, replies show there is often either a trail or the sites are not accessible. Besides trails and boardwalks, one location allows the site to be seen from the road, and the Dolmen de Soto has a flat accessible path allowing visitors access to the inside of the tomb where the rock art is visible.³⁸⁰ As stated several times before, many locations do not want people to access their sites, so there are no trails. It seems that for sites outside of the US, other forms of accessibility (such as those discussed in 5.1) to sites is not available.³⁸¹ Very few locations that replied have robust features for disabled folks like online tours, 3D imaging, or other forms of accommodation.

The final question for this category asked how respondents got people excited about rock art. Unfortunately, besides Dolmen de Soto, responses came in two categories, first was that more excitement meant more attention both positive and negative and should try to be avoided or that they did not have to get people excited about rock art, because people were already excited.³⁸² Both of these answers are not very helpful for this project and both sad and heartwarming respectively. Russ Cash of Nez Perce National Historical Park sums up both category two and this section best with their reply:

“... There truly is something special about viewing something that was created by someone over 10,000 years ago. There is nothing more powerful for connecting someone to humanity's past than a creation made by a human we will never know, that we never knew, that is from an unknown place, from an unknown family, and from an unknown state of mind. The only thing we can connect to is a sense of our shared humanity across millennia.”

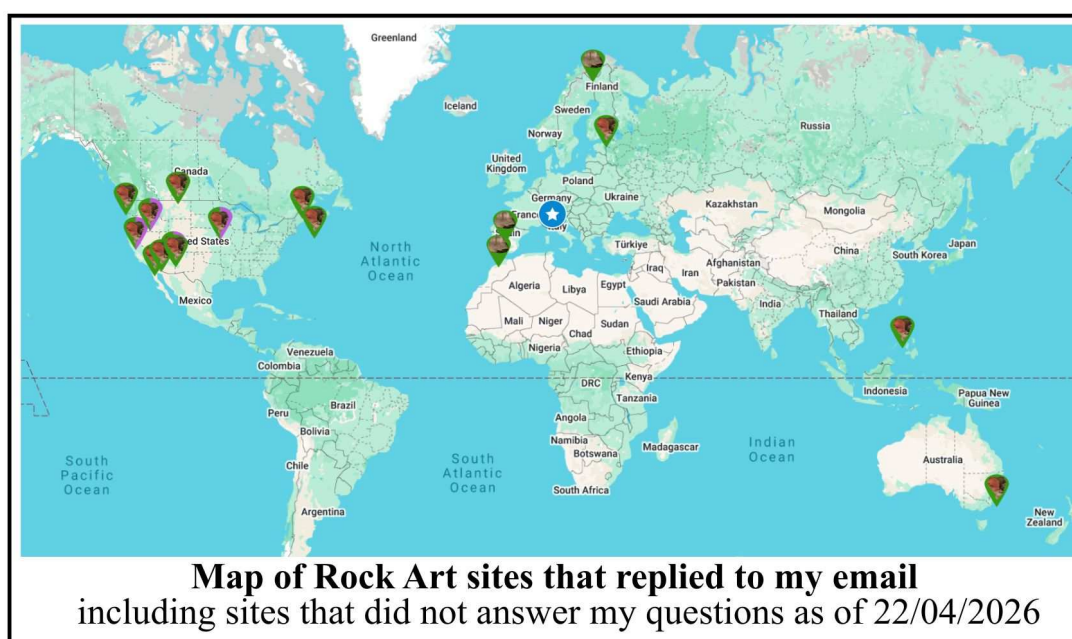
The final category is that of Additional Information. The questions here do not truly need to be analyzed as they are mostly focused on asking for citation permission and additional locations to reach out to. The only question that really merits looking into is that of

³⁸⁰ The pathway looks accessible, and the respondent also highlighted its accessibility but this Europe, so I am skeptical.

³⁸¹ With the passing of the Americans with Disabilities Act in 1990, all projects/services/programs that use federal funding must be as accessible as is reasonably possible, this includes the US NPS. At its core it means that NPS sites need to be as physically accessible as possible which often goes along with sensory and educational accessibility.

³⁸² They replied as having a comprehensive yearly program of diverse activities, and they give presentations on social and public media as well as tourism fairs.

further considerations that should be kept in mind. More than half of the respondents did not reply to this question, but those that did were either very thoughtful, practical or generally excited about this project. One reply was very realistic and discussed the need to consider safety features like multiple surveillance cameras and highlighted the specific need to make sure one camera caught the vandal's license plate. Several of the replies were about talking to the locals, specifically native peoples, because they could have a deeper insight into the significance of the site through methods like oral histories or other less conventional methods. The final response was a different take on talking to locals, this time focusing on land-use and how local people feel about having a national entity in their midst and/or the right to access the space for various reasons. These further considerations dovetail perfectly into the discussion of what this data actually means for this project moving forward.



5.2.d Conclusions

This section will begin by thanking all of the sites that replied to the email sent to them, even if they did not answer the questions.³⁸³ As discussed above, 16 sites responded to the email, and of those 16, 13 provided answers to the questions, or forwarded the questions to someone that could help. This scholar is very appreciative of the professionals, including park rangers, archaeologists, historians, scientists, researchers and others, who took time out of their busy schedules to assist in this portion of this thesis.

To begin the final analysis there is one major point that needs to be highlighted: most of the educational data collected is not directly applicable to the situation at *Massi di Cemmo*. This is because though there may be genetically related living descendants of the original rock artists of *Cemmo*, the culture that created the sanctuary is long gone, disappearing with

³⁸³ Several sites that I reached out to replied apologizing that they were currently unable to help me for various reasons. Even though they couldn't help, I still really appreciated hearing back from them.

the proliferation of Christianity into the Valley. Rarely are traditional and/or folkloric practices still seen that seem to correlate and relate to Copper Age sanctuary sites in Valcamonica like *Cemmo*, demonstrating that there isn't a 'living' cultural connection like those that exists at many of the rock art sites that replied.³⁸⁴ This is not to say that the data received isn't helpful, or thought provoking, just that the ways it will be applied in this analytic conclusion may be more abstract than literal.³⁸⁵ That being said, there are four main takeaways from the data amalgamated above that will be applied to suggestions for improvements at the Site of *Massi di Cemmo*.

First and foremost, is the utilization of the internet as a tool for education. Responses across the board demonstrated how important it was to have a website with at least basic information available. Beyond that there is the emphasis on what one could call a "Swiss Army Website," or a website that has all of the resources a visitor could need to have a successful stop at *Cemmo* in one place. This might look like a main website for the site that has links or pages that provide a gateway to further information, education for teachers, high quality pictures and videos of the site,³⁸⁶ accessibility resources (like an audio tour), contact information, further information about the stelae and their positioning, etc. the possibilities are endless. If there had been more time, it may have been interesting to reach out to the sites that replied and ask them about their website analytics and what pages are used most or what information visitors find the most valuable for greater understanding. Due to the changeable nature of a website, it can also be updated more frequently than physical signs and provide access to new information as more is learned, all the while being integrated physically into the site using QR codes or some other type of physical-digital linking technology.³⁸⁷ Data from respondents and the effort applied to attempt to contact them show that having a website that is well maintained, monitored and that can act as a primary source of information can keep the public well informed and ensure that a rock art site is getting the attention it deserves.

Secondly, though many of the replies discussed how they didn't need to get people excited about rock art, they just were, the reply from Dirección General de Patrimonio Cultural about Peña Tú encouraged reflection, "Society's appreciation for this type of art is high, so interest in these sites does not need incentives from the administration."³⁸⁸ This led to the immediate thought that to have high interest in something, people must know that it exists and is available for them to experience. So while incentives like novel experiences may

³⁸⁴ An example of this is discussed in Section 2 of this thesis with the practice of a procession up the Ossimo plateau to the area of Pat, but even that has largely stopped being practiced as of the 1950s.

³⁸⁵ This of course is not including the Alta Rock Carving Area or Peña Tú which exist in a far more similar context to Massi di Cemmo.

³⁸⁶ Perhaps similar to Alta's Archive (<https://altamuseum.fotoware.cloud/fotoweb/archives/5003-Photoarchive/>)

³⁸⁷ A website isn't completely necessary; in other sites around Italy (such as Pompeii, Herculaneum, the Roman Forum, etc.), they use QR codes that lead to digital PDFs, which can still be updated pretty easily, but may be less prone to cyber-attacks.

³⁸⁸ Original text in Spanish: "La valoración de la sociedad por este tipo de arte es alta, de forma que el interés por estos yacimientos no necesita incentivos por parte de la administración."

not be needed, advertisement and public promotion might.³⁸⁹ Data from sites that are not actively choosing to hide their rock art for preservation and/or spiritual reasons highlight education as a good way to boost engagement and get people invested in preserving rock art sites for generations to come.

Thirdly, though *Massi di Cemmo* does not have cultural descendants of the original rock artists in the area, it is still located in a small tight-knit Alpine community who have had a lot of influence and feelings about the valorization of Valcamonica. This is to say that locals are still people of the valley and deserve to have their past with this special place recognized. A lot of the replies to the questions emphasized how important it is to foster good relationships between stakeholders, something that in the past has not been the case for the people of Capo di Ponte.³⁹⁰ So if renovations or updates are being done to *Massi di Cemmo* including locals in the process, specifically in terms of signage and historiography may help heal past hurts as well as create a greater investment in the site from its primary stewards. In addition to consultation, using the work of local artists in displays or the creation of benches, or whatever else is determined to be needed, could also be a unique way to foster good will.

Finally, collected data shows there are very few physically accessible rock art sites. This means that *Cemmo* is in the unique position to provide a deeper and more meaningful interaction with prehistory to people who may have never had the opportunity before.

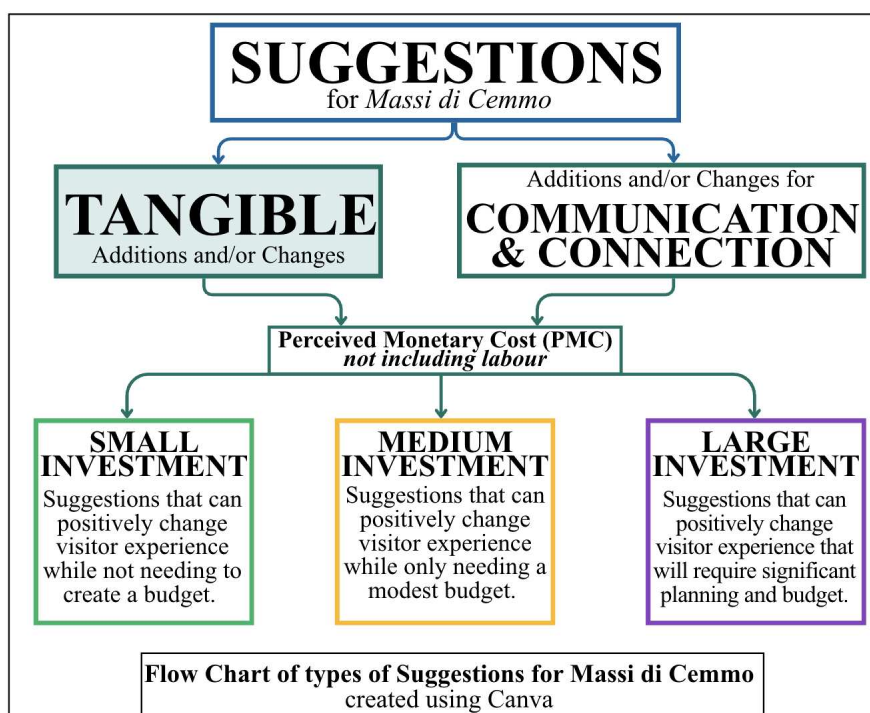
Keeping these takeaways in mind, as they will be identifiable in the ways in which they can be implemented at *Archeologico Nazionale dei Massi di Cemmo*.

³⁸⁹ Of course, this is dependent on a lot of factors such as visibility of the site, local and international excitement, visitor demographics and more.

³⁹⁰ CHALCRAFT 2009. 138-40.

6 Suggestions for the Enhancement and Valorization of *Parco Archeologico Nazionale di Massi di Cemmo*

This section is devoted to the suggested changes and/or additions that could be utilized at *Massi di Cemmo* for the purposes of visitor enhancement and engagement, with a specific focus on the inclusion of disabled people. These suggestions are made after extensive hours of research and visitations to the site of *Cemmo*, as well as years of experience in multiple relevant fields.³⁹¹ Beyond personal experience, research has also been done on tourist engagement and multiple national parks around the world reached out to as seen in the previous section. All of this is to say that these suggestions come from a well-researched and carefully considered place.



This section will be divided into two main subsections that cover the main overarching categories of suggested changes and/or additions for *Massi di Cemmo*, specifically tangible and intangible. Within these categories there are suggestions that then fall into a sub organizational matrix that is defined by the perceived monetary cost (not including labour) of each proposed addition and/or change. This cost matrix is included for several reasons, but most importantly is to show that improvements to visitor experience can be expensive and require a lot of resources and reorganization, but they do not have to. Experience enhancement can be very simple and does not require an overhaul of existing infrastructure, only passion and the willingness to ask for help.

³⁹¹ It is important to note that I am not only a licensed Teacher in two US states, but I am also a licensed teacher of Special Education and often work with disabled students who have complex support needs. I have also previously worked as a landscaper and as a result understand how challenging and expensive the upkeep of a large meadow area, specifically one with gravel paths can be.

6.1 Tangible Additions and/or Changes to *Massi di Cemmo*

The first subcategory of suggestions is that of Tangible Additions and/or Changes. In this context, Tangible additions/changes are modifications to the *physical* site or alterations that visitors will *physically* interact with in person. This section will focus on enhancements onsite which means, projects that will skew significantly more towards the Large Investment side of the Perceived Monetary Cost matrix, due to the fact that many will require material changes to the current site infrastructure.³⁹²

6.1.a Updating Signage

When discussing signage available at *Massi di Cemmo*, and more broadly in general, there is a lot to consider. First and foremost, educational signage is a motivator to move deeper into a park space to learn, meaning that well thought out and designed signs can change the perception of a park.³⁹³ This perception can also be coloured depending how available the information is to all visitors. So, in terms of accessibility, one must consider potential issues like: sign height, colour contrast, font legibility (size, shape of letters and colour), reading comprehension skills of the general public/target demographics, information provided, graphics/images, and several other factors. For the purposes of this project, there will be an exploration of three areas of adjustment in signage at *Cemmo*, what can be done to improve those areas as well as the PMC. Each area will identify what is on site now, and what additions/changes could be made to improve visitor educational outcomes. These will include: Physical accessibility of signage (are all people able to visibly read and access the information on the sign), educational accessibility (do all people understand what a sign is trying to teach/inform them) and finally building a contextual basement (do people have adequate foreknowledge to understand the importance of the information on the signs). After which, new ideas about types of signage as well as sign content will be discussed as a larger investment proposed for the future. In Appendix E, there will be a visual representation of the proposed types of signage that were ‘built’ or proposed throughout this subsection.

Firstly, is the physical accessibility of the signage on site. The signs that can be currently seen at *Massi di Cemmo* were designed by a graphic designer from Brescia named Lorenzo Caffi. While these signs are aesthetically pleasing, there are some significant issues in terms of visitors being able to access information on them.³⁹⁴ To demonstrate these issues and how one might fix them, the rest of this paragraph will be devoted to ‘building’ a more universally designed sign using accessibility guidelines from multiple countries and international organizations, as well as scientific research. The first step to implementing accessibility, is figuring out who may struggle to read signs at *Massi di Cemmo* and why:

³⁹² From this point on the Perceived Monetary Cost matrix will be referred to as the PMC.

³⁹³ THOMPSON, HOUSEAL 2020, 131.

³⁹⁴ Many of the issues highlighted here may seem small, but are important, but it is worthwhile to acknowledge that the issues with colour and contrast are most likely caused by sun exposure, which is something to think about if the signs are replaced in the future.

People with low vision/visual impairment,³⁹⁵ People with colour blindness, People with reading or attention disabilities,³⁹⁶ People in wheelchairs or that use other mobility aids,³⁹⁷ as well as other people with more niche support needs.³⁹⁸ This audit of needs allows designers to determine what needs to be addressed in terms of accessibility. In the case of our sign, things like the actual physical form of the sign, the font of the information, the colours utilized, and what addition of accessibility features can be added without disrupting learning.

In building the hypothetical sign from the ground up, it is important to start with the physical structure of the signs. The current signs onsite are demonstrated through the infographic below. While these signs are beautiful and inform the public, there are changes that could be made to make them more physically accessible for people with mobility impairments. In the US, due to the Americans with Disabilities Act (ADA) as well as other regulations, all signage at national parks are standardized so that they can be easily read from both a standing and sitting position.³⁹⁹ The specific form of signage that may work best for *Massi di Cemmo* is one the US National Park Service (NPS) calls the 'Wayside Guide: Low Profile.' It is classified as low profile because the informational placard is at a 30° to 45° angle, conforming to NPS internal standards and also allowing smaller visitors the opportunity to interact with the signage.⁴⁰⁰ Additionally, the standard height from the lowest part of the sign to the ground beneath it is between 61cm and 91cm (or 24-36 in), though it is dependent on the size of the sign.⁴⁰¹ An average manual adult wheelchair (like those seen in hospitals) is about 76 cm from the bottom of the wheel to the armrest, which means that for larger signs, wheelchair users are able to fit their legs underneath while interacting with the information.⁴⁰² This helps with path clearance and ensures that the more people are able to access what *Cemmo* has to offer. Additionally, due to the angle of the proposed signs, *Massi di Cemmo* would be able to offer tactile displays, such as a negative replica of an engraving, or a 3D map of Pian delle Greppe. This change would allow for greater inclusion of people with vision impairments, by offering them a way to physically interact with the park itself beyond just the Braille map at the entrance. Visual impairment does not always mean blind, which is why one needs to think beyond tactile when continuing building the hypothetical sign.

³⁹⁵ This can also include people with distortions or artifacts in their field of vision

³⁹⁶ This can include disorders like ADHD, or Dyslexia, or Dyscalculia, etc.

³⁹⁷ These mobility aids can prevent them from getting closer to the text, making it harder to read

³⁹⁸ <https://digital.accessibility.princeton.edu/how/design#guide>, (Accessed 26 April 2026).

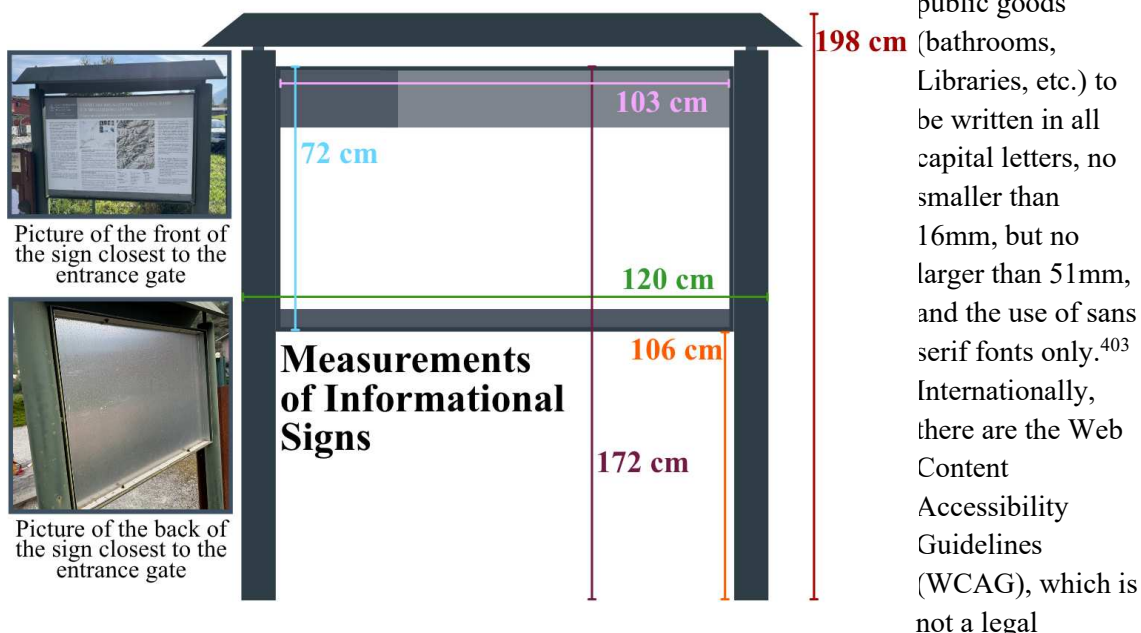
³⁹⁹ <https://cd3abd6beebe142023d-31d81c9257c2834bed6081c9f3253cbd.ssl.cf2.rackcdn.com/custom-signs/nps/national-park-service-uniguide-standards.pdf>, (Last Updated 01 June 2002). SEC. 1.1, 14.

⁴⁰⁰ <https://www.nps.gov/features/hfc/guidelines/#h.geqszel8cxwd>, (Last Modified May 2017).

⁴⁰¹ *Ibid.*

⁴⁰² https://archive.ada.gov/regs2010/titleIII_2010/titleIII_2010_regulations.html, (Last Updated 17 Jan. 2017).

Another consequential decision that needs to be made when designing a sign is the font used for the informational text. In some countries and industries textual fonts are highly regulated to ensure accessibility for all. For example, in the US, the ADA requires signs for



requirement but offers clear directions, such as encouraging the use of fonts without extremely thin lines, in an attempt to make the internet more accessible for all.⁴⁰⁴ Outside legal or industry requirements, what makes some fonts more legible than others? This is dependent on the letter shape, character and line spacing, letter thickness, and generally ensuring visual differentiation between characters.⁴⁰⁵ The target demographic of our informational sign is all ages and literacy levels, so the font used should have easily distinguishable letter shapes (no letters that look the same), adequate letter spacing, differentiation in height between capital and lowercase letters and should not have letters that mirror each other (like bdpq).⁴⁰⁶ In practice this means that fonts with serifs, connecting letters, or monospacing should be avoided, and that in choosing one should look for fonts that have a higher “x-height,” and more open space within the letters themselves. After careful research the font called *Atkinson Hyperlegible* was found to be the best option to utilize for the main body of text as of now. This font was specifically designed in 2019 by the Braille Institute of America to be legible to people with low vision by making every character unique which makes decoding easier even if one’s vision is fuzzy.⁴⁰⁷ It is also free and open use, so anyone can use it without asking for permission.⁴⁰⁸ For headers/titles use Literata, as it keeps

⁴⁰³ <https://www.access-board.gov/ada/#ada-703>, (Accessed 26 April 2026).

⁴⁰⁴ <https://www.w3.org/TR/WCAG22/>, (Last Updated 12 Dec. 2024).

⁴⁰⁵ SOMAI *et al.* 2025.

⁴⁰⁶ <https://medium.com/the-readability-group/a-guide-to-understanding-what-Makes-a-typeface-accessible-and-how-to-make-informed-decisions-9e5c0b9040a0>, (Published 01 Aug. 2024).

⁴⁰⁷ <https://www.visionaustralia.org/business-consulting/digital-access/blog/typography-in-inclusive-design-part-2#so-what-font-should-i-use>, (Accessed 26 April 2026).

⁴⁰⁸ <https://www.brailleinstitute.org/freetfont/>, (Accessed 26 April 2026).

the older flair of serifs, but is bolder and more evenly spaced. Together these fonts continue to provide the aesthetic Mr. Caffi was going for, while being more visually accessible.

Current Signage Font

PARCO ARCHEOLOGICO NAZIONALE DEI MASSI DI CEMMO

A Cemmo, in prossimità del masso Cemmo 20, si osservano pratiche rituali che hanno attinenza col culto dei morti e la celebrazione degli antenati.

my best guesses as to fonts used:

Heading/Title Font:

PRATA (specifically all caps)

Body Text Font:

Open Sauce

Proposed Signage Font

PARCO ARCHEOLOGICO NAZIONALE DEI MASSI DI CEMMO

A Cemmo, in prossimità del masso Cemmo 20, si osservano pratiche rituali che hanno attinenza col culto dei morti e la celebrazione degli antenati.

Heading/Title Font:

LITERATA (specifically all caps & bold)

Body Text Font:

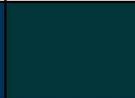
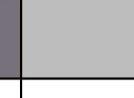
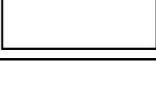
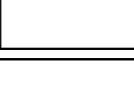
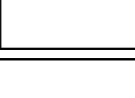
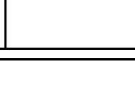
Atkinson Hyperlegible

While font is important, it is colour choice that determines if the font itself is legible. All the research found while exploring this topic highlights how important having high contrast between the text colour and the background is to legibility. Both the ADA and WCAG emphasize how colour choice can affect a person's ability to access information while research done in the fields of Education, Psychology and Cognitive studies stress how colour is related to memory by lowering an individual's cognitive load.⁴⁰⁹ In the context of the signage at *Cemmo*, the current colour scheme is one that is very effective for the most part. The various shades of green, grey and white are highly reminiscent of other national parks and provide a form of subconscious cohesion. There are three things to take into consideration as the building of the hypothetical sign in terms of colour: Sun bleaching, glare and colour blindness. Due to the fact that *Cemmo* is mostly in direct sunlight, it is important to choose colours that take longer to fade, or fade in a way that allows them to continue to function as signage. Darker colours will eventually fade into lighter colours, but it will take a longer amount of time, though the material and positioning of the sign play a large role in this.⁴¹⁰ The second thing to consider is that when the sun shines directly onto white material, it can cause a lot of glare not only making the information difficult to read, but can also take

⁴⁰⁹ SKULMOWSKI, REY 2018.

⁴¹⁰ <https://www.nps.gov/features/hfc/guidelines/#h.geqsize18cxwd>, (Last Modified May 2017).

away from the natural beauty of the site.⁴¹¹ Finally one must consider colour blindness, taking into account all of the various different subtypes which affect how people are able to see the world. According to data collected by the European parliament, “If you want the colours in your visualisation to be perceived the same by most people, your safest bet are blue colours. If you need multiple colours, you should go for blue with orange or red...”⁴¹² After doing research, the colours chosen were a darker blue grey, burnt orange, grey and white colour scheme. These darker richer colours were chosen because they could still be distinguished from one another by people with colour blindness, but that would hopefully take longer to fade in direct sunlight. At this point, the physical building elements of the proposed sign have been discussed in depth, but there are more forms of accessibility left to explore.

PROPOSED COLOUR PALETTE for signs as <i>Massi di Cemmo</i>						
Colour	Hexadecimal Colour Code	Given Name	Apperance to forms of Colorblindness			
			Protanopia (reduced sensitivity Red Light)	Deutanopia (reduced sensitivity to Green Light)	Tritanopia (reduced sensitivity to Blue Light)	Achromatopsia (monochromy or complete lack of colour)
	#1C2669	Dark Blue				
	#c47332	Grey Orange				
	#737373	Grey				
	#ffffff	White				

Educational accessibility is something that is often overlooked in Italy and beyond. When considering visitor engagement, literacy rates of the general population must be taken into account. A comparative study of global reading statistics shows a downward trend in literacy rates from 2018 to 2022.⁴¹³ In specific national data:

- 35% of Italian adults show a Low Literacy level, specifically at PIAAC Level one, meaning “they can understand short texts and organised lists when information is clearly indicated, find specific information and identify relevant links.”⁴¹⁴
- 68% of US 12th grade students (ages 17-18) are considered to meet the National Assessment of Educational Progress (NAEP) basic level Literacy.⁴¹⁵

⁴¹¹ *Ibid.*

⁴¹² <https://data.europa.eu/apps/data-visualisation-guide/accessible-colour-palettes> (Accessed 26 April 2026).

⁴¹³ OECD 2022, 158. 158.

⁴¹⁴ <https://gpseducation.oecd.org/CountryProfile?primaryCountry=ITA&treshold=10&topic=AS>, (26 April 2026).

⁴¹⁵ <https://www.nationsreportcard.gov/reports/reading/2024/g12/national-trends/>, (26 April 2026).

Beyond people's struggles with reading comprehension, and literacy in general, evidence shows that there is a direct link between the "readability and attractiveness of signs in National Parks" and how much people are able and willing to learn from said signage.⁴¹⁶ An excess of jargon, specifically scientific wordage and low readability which is based on "syntactic complexity (e.g., sentence structure and length) and lexical complexity (e.g., word structure)," makes the general layperson feel out of their depth causing them to be far less likely to comprehend and retain the information shared.⁴¹⁷ Data shows that people are able to learn and comprehend challenging topics if less technical jargon is used, and the information is made relevant to them in some way.⁴¹⁸ Specific new vocabulary (jargon) may need to be taught to fully grasp the importance of a site, but can be done with the use of repetition and infographics both of which can help create connections and cement ideas in the brain.⁴¹⁹ Infographics can also be an underutilized form of accessibility, especially for people who cannot read.⁴²⁰ They provide information in both written and visual



form allowing everyone the opportunity to very basically interact with important findings and/or concepts. Infographics are also proven to cut down on the negative effects that including jargon can have on reader comprehension and retention, while making information more aesthetically pleasing and therefore more acceptable.⁴²¹ In the case of *Massi di Cemmo*, infographics could best be utilized to provide basic background information that people wouldn't necessarily have received. Things like a colour and symbol coded comparative timeline (that explores the life of *Massi di Cemmo* in comparison with other historical events both inside and outside of Italy) and Vocabulary pop-ups to provide definitions of words like *Megalithic*, *Chalcolithic*, *Stele*, *Menhir*, *Engraving*, etc.

⁴¹⁶ ZHU *et al.* 2021, 10.

⁴¹⁷ ZHU *et al.* 2021, 2.

⁴¹⁸ ZHU *et al.* 2021, 10.

⁴¹⁹ ZHU *et al.* 2021, 10.

⁴²⁰ Due to cognitive development issues, ASD, or any other number of reasons

⁴²¹ RIGGS *et al.* 2022, 761.

Other more physical variables can also affect readability, such as font size (60-66 point)⁴²², word choice and the amount of words there are in a space. People are often intimidated by a wall of text, meaning if they are not truly interested in a topic, they are less likely to stop and read. In the US NPS guidelines for wayside interpretive signs, it advises that a sign that is 106 cm x 61cm should have no more than 100 words per the main text.⁴²³ This word amount does not include captions for pictures, quotes or side-bars, but does fluctuate depending on the size of the sign, following the general rule: Less space equals less words.⁴²⁴ As a result of this research the hypothetical future signage should have: 60-66 point font, use smaller easier to decode words, use infographics to explain new scientific concepts, and have no more than 100 words in the primary informational text.⁴²⁵

In addition to literacy, there are other things that affect a sign's effectiveness and educational accessibility.

Primarily, physical access to the needed information, which is where powerful technology like Quick-Response (QR) codes can and have been utilized. *Massi di Cemmo* is lucky enough to have multiple audio tours of the park,⁴²⁶ but as of now, the only place informing visitors of these services is a small unlaminated paper sign zip-tied to the front gate.⁴²⁷

QR codes could be used to incorporate these fantastic and already available audioguides into the physical site, by linking specific sections of the audio to the sign with the information it discusses. Since the COVID-19 pandemic there has been a notable increase in people's awareness and use of QR codes, and as a result they have been shown to be a cost effective way to provide additional or more in depth information.⁴²⁸ Of course this comes with caveats, as QR codes require access to the internet, they must be well labeled, the



⁴²² <https://cd3abd6beebe142023d-31d81c9257c2834bed6081c9f3253cbd.ssl.cf2.rackcdn.com/custom-signs/nps/national-park-service-uniguide-standards.pdf>, (Last Updated 01 June 2002). SEC. 2.2, 2.

⁴²³ <https://www.nps.gov/subjects/hfc/upload/Wayside-Guide-First-Edition.pdf> (Last Modified Oct. 2009), pp.

16.

⁴²⁴ *Ibid.*

⁴²⁵ The 60-66 point font is once again from the US NPS standards for wayside signs.

⁴²⁶ This will be discussed in far more detail in section 6.2a

⁴²⁷ There is also one very small QR code located on the Braille sight map, but it is not labeled and hard to notice.

⁴²⁸ CRASKA *et al.* 2025, 42.

information contained must be well curated and they may be frustrating for older people.⁴²⁹ Some of these issues can be mitigated by also providing a written link to the website in the QR code's label so people are able to take a picture of it and explore further information at a later date.⁴³⁰ Even with these challenges in mind, their utilization is still worth it for several reasons.⁴³¹

Firstly, other national park sites are already using them successfully (for survey taking, additional information, etc.) or are adding them to their future plans. In his response to the survey discussed in Chapter 5.2, Ranger Jeff Betteridge from Brisbane Water National Park expressed wanting to include QR codes in his rock art site's next signage update, which shows that their addition is still an ongoing process in the rock art national park space. Secondly, they can be added to spaces unobtrusively and relatively inexpensively.⁴³² This is especially important when considering the landscape of *Massi di Cemmo*, as previous signage plans specifically excluded signs from the sanctuary area to help preserve its atmosphere and authenticity. Since QR codes can be very small they can be placed on the already existing fence posts thereby providing people information about the engravings while directly in front of them.⁴³³ Right now to get in depth information about Cemmo 1, 2 and 20, a visitor must leave the sanctuary area and go to the nearest embankment of signs, a process which is much harder if said visitor has mobility issues, or issues with short term memory (such as they won't remember what they read or what questions they had by the time they get to the sign and the same in reverse). By adding a QR code in the sanctuary, it can mitigate these grievances while keeping the atmosphere of the prepared sanctuary area. Thirdly, *Massi di Cemmo* is part of UNESCO Site no. 94, and is therefore a *World* heritage site, meaning that people from around the globe visit and may want to interact with the site's information. QR codes can be used to communicate with multilingual individuals, while ensuring that what they are learning is factually correct instead of accidentally mangled during use of an outside translation. Other nationally significant sites in Italy, like *Parco Archeologico di Ercolano*, *Parco Archeologico di Pompei*, and *Necropoli della Banditaccia* already utilize this method.⁴³⁴ Next is that QR codes are relatively easy and cheap to update. Instead of changing a whole sign when new research is done, the new information can be added to what already exists on the QR code or replace it completely. It is a much more cost effective way to ensure the site remains up to date, and can be an effective way of providing further scientific and peer-reviewed information for visitors who are interested.⁴³⁵ Finally, studies show that QR

⁴²⁹ <https://www.museumnext.com/article/qr-codes-are-experiencing-a-resurgence-but-how-can-they-benefit-museums>, (Published 18 Dec. 2024).

⁴³⁰ Taff *et al.* 2022, 148.

⁴³¹ In this context the QR code would be one that takes visitors to a link tree, so they see options instead of having several QR codes per sign.

⁴³² This price is just talking about the addition of the QR code alone, not the whole sign.

⁴³³ This was something that was highlighted multiple times by several different visitors when visiting the park.

⁴³⁴ I can say this with certainty because I was one of the international visitors that used these QR embedded resources when travelling in central Italy during February of 2026.

⁴³⁵ Imagine this latter section as a bibliography for the sign. People who are interested and want to know more will be able to access factual and publicly available information far more easily and will be less likely to find and fall for the pseudo-scientific work that exists out there on the internet. Additionally, it may get more eyes on scholarly work, and introduce more people to just how fascinating the prehistoric world of Valcamonica and Valtellina is.



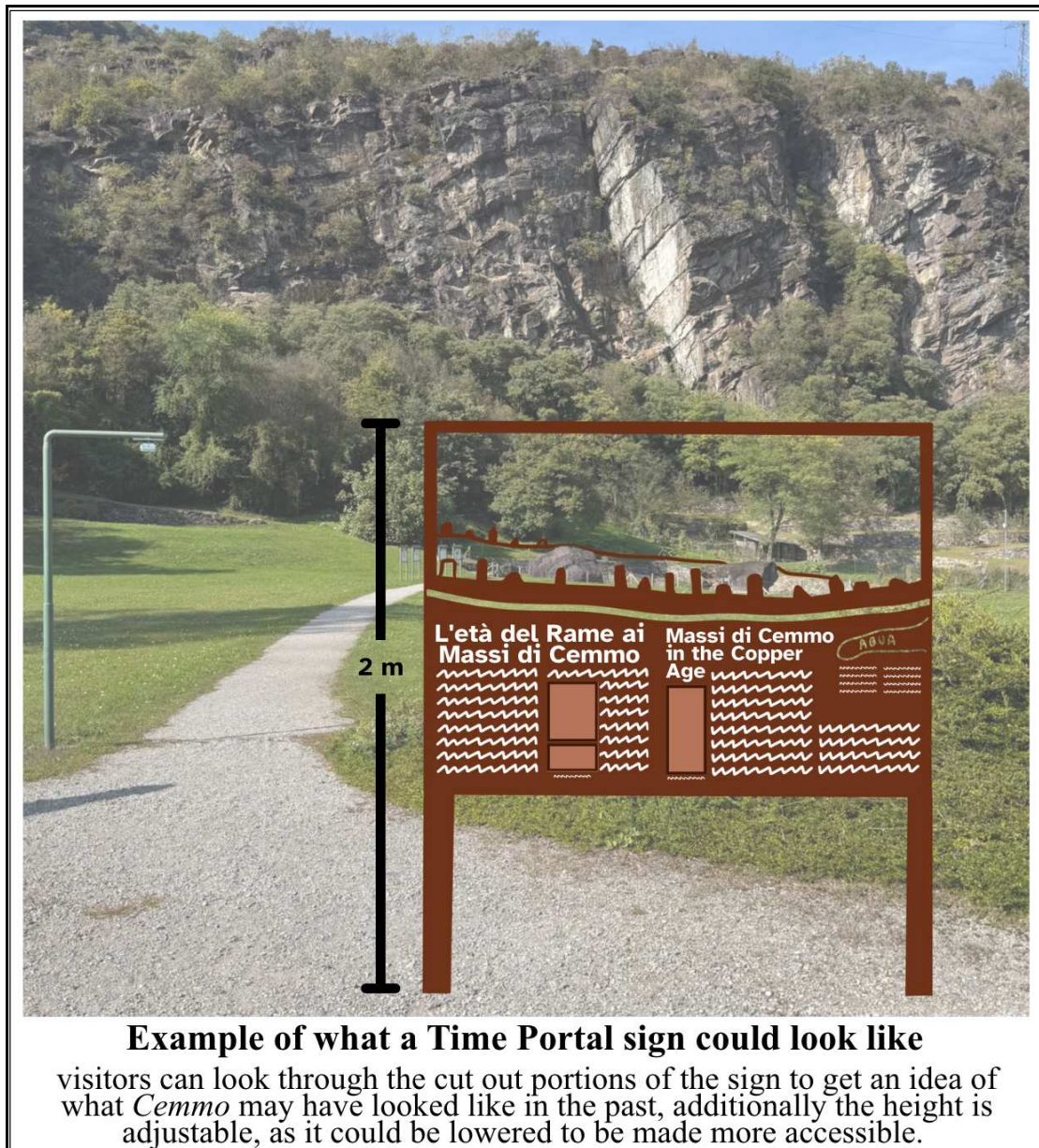
An Example of a QR Code Placement inside of the Sanctuary

codes do not take anything away from a tourist's experience and while not every visitor will use it, the ones that do enjoy having the opportunity for additional learning available.⁴³⁶

Using all this information, it is time to 'construct' the hypothetical sign, an infographic of which can be seen in Appendix E, but there is one additional form of signage that goes beyond what already exists on site. At this time, there is not a well-used or standard name, but due to their function, one could call these proposed additions Time Portal Signs (TPS). A TPS is a sign that has various cut outs and is positioned in such a way that when looked through from a specific vantage point, one can see what something may have looked like in the past. The reason for this idea is twofold, it makes the site itself more interactive, and there is far less upkeep involved than the use of replicas. A series of TPS could make visitors feel as though they are traveling forward in time from the site's foundation to what still exists there today. With each sign, changes would be made to show major phases of development. This could be executed in one of two ways, as a tunnel/telegraphing story that is carefully lined up in a straight line to create an optical illusion, or as a series of signs, lined up side by side in a way that visitors will get a slightly different angle for each time period.⁴³⁷ While these signs may not be as accessible as some of the other suggestions, they would be a valuable addition because data shows that most visitors to the site are children and the more

⁴³⁶ CRASKA *et al.* 2025, 47.

⁴³⁷ It is clear that due to the fact TPS rely on OPTICAL illusion they would not be very accessible to people with vision impairments. This is correct, but it could be made workable by providing descriptive audio (the same technology that allows for vision impaired people to experience movies) of what the signs show.



interactive elements there are, the more likely kids are to be engaged in learning.⁴³⁸ Another factor to consider is the upkeep. Signs, especially ones that do not have printing on them and are made of a durable material like metal, require very little upkeep once made, whereas full scale replicas would require cleaning, repairs due to weathering, and have a higher likelihood of graffiti creating irreparable damage. In addition, if the replicas were placed where their real counterparts stood during various stages of *Cemmo*'s development people would not be able to physically interact with them without damaging vital pieces of the site like the Bronze Age Wall.⁴³⁹ Finally, it is meaningful to remember that the reason there is no signage inside of the Bronze Age Wall is because the park's initial designers wanted to keep/create the

⁴³⁸ POGGIANI KELLER *et al.* 2009b. 250.

⁴³⁹ If a visitor wanted to touch the stele they would have to get far too close to the bronze age wall, something that could cause greater damage and be more costly in the long run.

ambiance of this once sacred place and show how it has continued to endure to this day. By adding replicas, one is taking away from this inaugural goal as they would fundamentally change the landscape of the current site. On the other hand, the addition of TPS would be at a distance to ensure that their optical illusion would be functional thereby leaving the sanctuary itself largely untouched while still providing important contextual information.

As it is clear to see, signage is a vital part of creating an accessible experience for visitors. While the updates proposed above would fall definitively into the Large Investment category, long term they would be worth the money spent.

6.1.b Engaging with the Ephemeral Pond

One of the important features that denotes a Copper Age Valley Sanctuary site from an Alpine Sanctuary site as mentioned in Section 1, is the presence of a water feature. *Massi di Cemmo* is close to the confluence of the Clegna stream and the River Oglio, and analysis of pollen found in deep coring samples shows that Pian delle Greppe was previously home to a small pond in the Copper Age, and continued to have a swamplier climate through the Iron Age.⁴⁴⁰ This small body of water is inferred to be ‘ephemeral’ as it appears to

have had infrequent inflow implying that its size was dependent solely on rainwater.⁴⁴¹ Despite the fact that this water feature is important to *Cemmo*’s identification as a Valley Sanctuary, the ephemeral pond is something that is not currently highlighted or very visible at all in the current iteration of the site. A change should be made to valorize this feature in some way.

Specifically, by illuminating its position in the meadow. It would be more engaging for visitors if the edges of the pond or the general location was made visible with a form of chain fence as well as some signage. A fence like the one pictured on this page would be a good choice. This type of metal chain fence could be painted a brighter but still natural colour to differentiate it from the grass, and it is durable. Beyond aesthetics, this type of fencing is



S6.I1 Low Post and Chain Fence
this example is called Driveway Chain Link Fencing from Harrod Horticulture

⁴⁴⁰ Signs from Massi di Cemmo

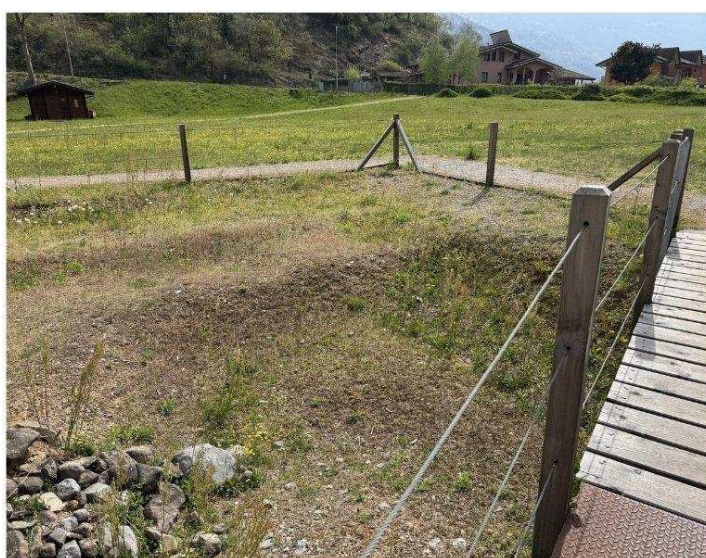
⁴⁴¹ POGGIANI KELLER 2016, 438.

also easier to upkeep as its height can be customized, it can be easily fixed if broken or moved if needed, and for groundskeeping's sake it easily mowed under.⁴⁴² In addition to the fence, signs in this area would be able to explain why this feature was important and how it helps differentiate Valley from Alpine Sanctuaries. Due to the nature of the pond, this area would also offer a great and more contextually connected opportunity to discuss the glaciation of Valcamonica (more specifically Pian delle Greppe) through explaining how the depression where the ephemeral pond was once located was formed. This could include things like an infographic on what the word ephemeral means, glacial erratics and how those may be connected to other Boulders like those in *Cemmo*, where the Cemmo 1 and 2 came from, what glacial striations and erratics are, or what the geologic timeline of the Valley looks like compared to the human one.⁴⁴³ By discussing the geological history of the park, a more intersectional learning experience would be created and a wider net would be cast in terms of engaging with visitors' interests.

6.1.c Highlighting the Stelae Pit

As mentioned in Section 2, *Massi di Cemmo* was ritualistically decommissioned during the Late Roman period due to the introduction of Christianity.⁴⁴⁴ During the excavation, archaeologists, specifically Dr. Poggiani Keller, made sure to highlight how carefully this overall violent action was done as the time it took was preserved for centuries. As a result of this and the fact that this was the last great modification done to the sanctuary, the park today preserves the pit.⁴⁴⁵

Unfortunately there is currently only one sign at the site that mentions the Stelae Pit, and it is not well marked, so it currently looks more like a



S6.I2 The Stelae Pit Today
as seen from bridge while
exiting the sanctuary.

⁴⁴² It would also be simple to add a padlock of the same colour that the groundskeeper can unlock to let the lawn mower into the center, or they may choose to let the grass inside grow longer in order to further differentiate the pond from its surroundings.

⁴⁴³ As of right now, neither the park or the museum do a very good job of discussing the geologic history of the valley which is very important in contextualizing why people chose this place to make their engravings.

⁴⁴⁴ POGGIANI KELLER 2000.

⁴⁴⁵ From this point on it will be referred to as the Stelae Pit

landscaping mistake. There are several changes that, if made, would highlight how important the Stelae pit truly is to the history of *Cemmo*.

Before introducing these changes, there are several considerations that need to be taken into account. First of course is that the Stelae Pit is a hole, which means that if it is monumentalized too much without fully filling it, it is liable to become a breeding ground for mosquitoes. Adding items that wouldn't necessarily occur naturally such as coloured rocks (to enunciate the differences in soil textures) or stabilizing substances like concrete or clay to place larger displays in, could cause stagnant water which is a perfect place for mosquitoes to reproduce. Secondly, the Stelae pit sits directly against the Bronze Age Wall which means that large scale changes could cause structural damage to another important section of the site. These considerations take into account visitors' comfort as well as the long-term viability of the proposed intervention.

The proposed changes come in two sections: inside of the pit and around the edge. Currently the inside of the pit is overgrown and scattered with pieces of the Bronze Age Wall and other loose detritus. Instead, if the Stelae Pit was cleared out, the bottom could be layered with a level of river pebbles (collected from the Oglio) as a mirror image to how the top of the pit was covered with the same before it was sealed.⁴⁴⁶ Beyond clearly delineating where the pit was located, it would not really be adding any new artificial elements to the site, and could be relatively easily maintained or if needed, replaced. The other advice for this space involves the use of replica stelae. If there was any place actually inside of the site to put them where their installation would cause the least amount of damage, it would be inside of the Stelae Pit. However, there are some caveats to this, specifically that it would be impossible to put all 5 stelae replicas into the pit without also filling it in some manner for support which could lead to the issues discussed above. This could be avoided if only the stelae found at the bottom of the pit were included, which is to say Cemmo 9 and Cemmo 10. If this were the case, visitors would get to see and experience what it was like for archaeologists when the bottom of the Stelae pit was reached, as well as the size and workmanship of the stelae in situ. Additionally, due to the location and depth of the pit, it would be more challenging to deface the replicas in any way, and if they were to be defaced there is less opportunity to do irreparable damage to the actual sanctuary site.⁴⁴⁷

As for the edge/outside of the Stelae Pit, the first suggestion is once again signage, in the form of the hypothetical sign described in subsection 6.1a. There would be three different signs, two interpretive and one that is solely an infographic, placed not only on the ground near the edge facing south, but also on the bridge across the pit. This way visitors will get the same information from two different viewpoints. The two interpretive signs would consist of one (Sign A) explaining how the stelae ended up in the pit from a historical perspective and one (Sign B) explaining how they were rediscovered from an archaeological perspective. Ideally, Sign A would include a description, an artist's rendition of what the site would have looked like in the Late Roman Period, and images of the artifacts found that helped with the

⁴⁴⁶ Enlist the help of children! This could easily be made into a community building activity that educates folks about the importance of reconstruction work. (I also personally think that this would embed the site with a more human and joyful energy.)

⁴⁴⁷ This is juxtaposed to putting Replicas on the Bronze Age Wall, which is far more fragile and easily breakable than a hole in the ground.

historical dating. Sign B on the other hand, would include pictures of the initial discovery as well as additional pictures taken throughout the recovery process/at each phase of excavation, tracings of the stelae themselves, and the archaeological site maps. The third, infographic sign, would be a highly clarified (colour and symbol coded⁴⁴⁸) timeline that presented the end of *Cemmo*'s life as a sanctuary.⁴⁴⁹ This sign would be double-sided and placed on the bridge so readers from both sides could use it as a reference as seen in the hypothetical site drawing above. Outside of the Stelae Pit is also where visitors would find an answer to how to show the depth and complexity of the pit prior to excavation. As stated above, major concerns about recreating the Stelae Pit as found, in situ, are: irreparable damage being done to the site, the mosquito issue, that the reconstruction would not be all that visible to visitors and that it would require a lot of regular maintenance. This proposal would be more similar to an art installation, as seen in the diagram in Appendix F. This cylindrical, freestanding structure (and its accompanying signage) would provide several educational and functional features an exhibit inside of the pit itself could not.⁴⁵⁰ Firstly the maintenance on the structure would be significantly easier due to its solid nature. It could be washed (perhaps with a pressure washer) a few times a year and it would remain in usable condition for a longer period of time.⁴⁵¹ Secondly it would create a greater educational opportunity as visitors would be able to see how the different stratigraphic layers interacted with each other and the stelae. This would allow visitors to intellectually explore why the pit was dug where it was, how the stelae were placed inside, what information archaeologists can glean from the act of desanctification and many other questions, as they would have a physical model to examine instead of drawings or descriptions.⁴⁵² Third, this would offer a much more accessible learning experience for folks with disabilities, more specifically visual impairments. As the proposed 3D model would be made out of concrete and could reasonably be positioned outside of the protective fencing, it could reasonably be touched. This would allow visitors with visual impairments to interact with the Stelae Pit, something that would not be possible if the exhibit was built inside of the pit. A touchable/feelable structure would also be a great way to make the site more interactive and arguably more educational for children as they would be able to explore an important piece of this sanctuary site with more than just their eyes. Finally, it would allow for the inclusion of replicas at the site in a way that could prevent damage that may be incurred by their installation to the site. As for the signage that would accompany this structure, it would be more similar to a labelled diagram to explain the make-up of the model. Ideally it would also include pictures from the archaeological excavation of each of the labeled sections so visitors could see the actual likeness of the object in situ and be able to place its positioning in a more physical manner on the model.

⁴⁴⁸ The symbols could be archaeological sketches of Items found in each time period

⁴⁴⁹ In this context, Highly-Clarified means that the timeline would still be a comparison like the one described in section 6.1a, but the *Cemmo* line would be significantly larger than all of the others.

⁴⁵⁰ By building a little bit further away from the pit (perhaps closer to the wall that *Cemmo* 20 is embedded in, but outside of the 'keep out' site fencing) a little roof could be added and would be a great way to keep it in good shape for a longer amount of time, and allow for folks to physically touch the statue without risking damage to the site.

⁴⁵¹ There is also no risk of the creation of a mosquito breeding ground.

⁴⁵² Using Models is on the list of Best Practices in education as it allows learners to physically interact with theoretical concepts that can be hard to visualize.

This type of multi-model learning can help cut down on the confusion that is caused by introducing new vocabulary or discussing scientific/professional jargon, both of which are needed to understand the nuances of an archaeological excavation.⁴⁵³

Overall, these suggestions would provide more on-site context that is currently lacking and allow visitors to appreciate the importance of this seemingly simple hole in the ground.

6.1.d Uplifting the Bronze Age Wall

Another fascinating feature at *Massi di Cemmo* that currently lacks specific educational context is the Bronze Age wall. This wall, a significant and identifying feature of the site, is mentioned only twice in passing in the current signage at the park today. Though this wall was built in the Late Bronze Age, it was a definite separation from the earlier phases of the site's life, and defined what the sanctuary looked like through the Late Roman Period (though at that time it was less of a wall and more of a platform).⁴⁵⁴ When thinking about enhancement for this area of the site, one must consider what visitors need to know and what they will find interesting. From an educators perspective, the foundation and building of the Wall in the Late Bronze Age (LBA) as well as how its function changed and stayed the same over time are both topics that people will be interested in and that add nuance to how the *Cemmo*'s roles changed during its very long life. All of this said, before any attempts at valorization are made, there is restoration work that needs to be done, as currently many areas of the wall are crumbling. Once that work is finished, there are two main interventions that could be made to help all visitors to better understand the structure: Signage with a bar graph

⁴⁵³ See Appendix F for graphic reconstructions of what the space would look like, where the 3D model would be displayed and how the signs would be placed in the current iteration of the site.

⁴⁵⁴ Please see Section 2.5, more specifically 2.5b for a more in depth analysis.

like representative timeline and excavation information and pictures as well as colour coded highlighting of where stelae were located within the wall itself.⁴⁵⁵

Interpretive signage for the wall would consist of two important parts, one sign located inside of the sanctuary and one side located outside. The signage located inside of the site would ideally be built into the retaining wall separating the National Park from



S6.I3 Late Bronze Age Wall in need of restoration near the Stelae Pit.

private land. This placement would keep the information close to the area it was needed without interfering with the archaeological landscape or taking away too much from the ambiance of the site. The information on this sign would be about the archaeological excavation done on the wall, specifically the location of the stelae found at the base (face down) and the stelae found in the wall still in situ. Luckily for us, there are many pictures of the portion of the dig with clearly identifiable features, which will help with explaining the positioning of the stelae in the wall. These pictures also give clear references for explanations about the wall's purpose as a way to re-sanctify the site after the 700 years of disuse. As part of this visual representation, it would be interesting to identify where the stelae were found in the wall using colour or texture. This would entail putting an coloured object in front of or within the wall where a stela was found that matched the colour coded information about the specific stele on the sign.⁴⁵⁶ With this visual aid, visitors would be able to see what the stelae

⁴⁵⁵ See Appendix G for visuals of these suggested changes including sign location, before and after digital editing pictures and a proposal of pictures to be included

⁴⁵⁶ The building into the wall option would really depend on the restorationist and if they thought it was something that could be done.

looked like inside/near their find spot depending on the execution method used, therefore giving more tangible credence to the information presented on the signage.

Outside of the sanctuary itself, specifically on the fence that faces Cemmo 1, would



Model of the Sanctuary Signage about the Bronze Age Wall

be a good location for the addition of an infographic. The purpose of this would be to show how the wall's height (visible and invisible) changed throughout *Cemmo*'s lifetime using a bar graph-like timeline. This infographic would have a center line that would be the visible ground and with each phase of site development, there would be a bar in a new colour and then an amount above and below this central line showing how much of the wall was visible. Beyond showing the accumulation that takes place during hundreds of years, it would also show just how deep the wall was below the surface at the beginning of the 20th century, thereby visually explaining why it took almost 100 years of excavations to discover the wall. Of course, the time period colours and graphics would be matched with all of the rest of the interpretive signs throughout the site to reinforce concepts presented and create a sense of continuity. In the spirit of continuity, the next section will discuss the need for coherent and conscious design choices to make the whole site of *Massi di Cemmo* as physically accessible for everyone as possible.

6.1.e Considering Visitors with Differing Mobility Needs

This suggestion for *Massi di Cemmo* could lead to tangible change which is why it was included in this section, and it is to ensure that the park is physically accessible to as many people as possible. The first step to making physical changes is an audit of the pathways by someone or some group with mobility concerns. What are mobility concerns?

Identified Issues for those with Mobility Impairment



1



2



3



4



5

Mobility is defined by Harvard Medical School as “all the skills required for everyday living: physical stamina, strength, balance, coordination, and range of motion.”⁴⁵⁷ So to have mobility concerns or a mobility impairment it means that one struggles with daily activities involving movement. This is an issue that exists far beyond the disability community as according to data from the various locations, in the U.S. 1 in 7 adults have a mobility impairment,⁴⁵⁸ and 18.5% of Europeans struggle to walk.⁴⁵⁹ These are not insignificant amounts of people, especially if one considers that older people often struggle more with mobility.⁴⁶⁰ This specific statistic is important because though adults make up only at most 17% of visitors to *Massi di Cemmo*, older people generally have time to take holidays and may be more likely to visit.⁴⁶¹ It is also important to remember that *Cemmo* is one of very few outdoor sites that is denoted as widely accessible in Valcamonica, so an audit of its accessibility is a way to ensure that is still true.⁴⁶²

Though this researcher does not have mobility impairments, they have been expressly trained to look for things that would cause issues of physical accessibility while gaining a licensure to teach Special Education in the U.S.. It is from this perspective that toured *Massi di Cemmo* to take notes on places people with mobility impairments may struggle. In doing so, five locations/areas on site were identified as potential causes of undue struggle for someone with mobility impairments, each of which are pictured below.⁴⁶³

The first area in which there could be problems was the entrance to the park. Within a 5 m span, there were five different surface covering texture changes. If a visitor approaches the entrance gates from the road there is a small curb (approximately 4.5cm high) made of rougher hewn stone, then about 2m of some form of compressed synthetic material (like that found on tracks for track and field), followed by another rough-hewn stone curb with a slight droop onto the looser, more sand/silt based gravel

⁴⁵⁷ <https://www.health.harvard.edu/topics/mobility>. (Published 20 March 2026.)

⁴⁵⁸ <https://www.cdc.gov/disability-and-health/articles-documents/disabilities-health-care-access.html> (Published 11 April 2025).

⁴⁵⁹ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Disability_statistics_-_population_with_difficulties_in_basic_activities, (Last Updated Nov. 2024).

⁴⁶⁰ <https://iris.who.int/server/api/core/bitstreams/4639a0b9-f77e-48db-9617-987aabb143f2/content>, (Published 2017), pp. 8.

⁴⁶¹ POGGIANI KELLER *et al.* 2009b. 250.

⁴⁶² There is an article that exists that lauded Cemmo as being “100% Wheelchair accessible,” which is factually incorrect, but it is important to note that others have assessed the accessibility of this site before. Though it was not done so in the detail that this project hopes to provide.

⁴⁶³ This is not meant to be an attack, but instead a thought exercise to look closer at what accessibility for ALL means by putting oneself in another’s shoes.

used on most of the walkways in the site.⁴⁶⁴ Changes in surface textures have been shown to create a fall and injury risk in older people, due to their higher toe clearance among other risk factors.⁴⁶⁵ The small curbs are also an issue for wheelchair and walker users as well as other people with mobility impairments as they are not only another barrier (even if it is a small one), but a tripping hazard.

The second thing that could cause issues for visitors is the poor upkeep of the trail itself, especially as you get closer to the sanctuary. The picture to the left shows the



curve in the trail directly next to Cemmo 2 overgrown with weeds and other detritus, which once again causes a change in surface texture with each step, but can also create a much more challenging environment for wheels to navigate. This is due to a lack of maintenance, and a surface covering that is not the best for a site which is not very frequently regularly maintained.⁴⁶⁶ Investing in a different form of surface cover could cut down on maintenance costs while ensuring *Cemmo* remains accessible to all.

Thirdly were some identifiable issues with the bridge over the Stelae Pit, specifically with spacing and structure. The wooden bridge is what provides entrance to the inside of the sanctuary site from the main trail. The two aspects that prompted concern were the wire fence on the edges above the pit and the spacing between wooden planks. The fencing is made of a thin metal wire connected between posts with a relatively loose tension making it inadequate to catch one self's full body weight while falling. In addition, after measuring, one finds that the average distance between wooden planks was 3.7cm, which may seem small but is large enough for mobility aids like crutches, or canes to become stuck or fall through. In comparison the maximum distance allowed between boards as required by the ADA is 13cm as a way to guard against this rare occurrence.⁴⁶⁷

The fourth observation was about the diamond plated metal used for the ramp and stairs. Beyond the fact that the final railing support rusted off of the main ramp (a picture of which is in section 4), is that diamond plate is notorious for becoming very slippery when wet.⁴⁶⁸ This is an issue due to the site's location in a meadow and the times of day in which the rock art engraved on Cemmo 1, 2, and 20 is most visible. In the morning before the sun rises over the mountains, is one of the best times to see rock art due to the shadows, it is also

⁴⁶⁴ All measurements were taken by me, which is why there will a liberal use of the word approximately when discussing them.

⁴⁶⁵ KIM, LOCKHART 2020.

⁴⁶⁶ <https://www.sportireland.ie/sites/default/files/2019-10/great-outdoors-a-guide-for-accessibility.pdf>, (22 May 2026).

⁴⁶⁷ <https://www.access-board.gov/files/aba/guides/outdoor-guide.pdf>, (Published May 2024).

⁴⁶⁸ <https://facilityexecutive.com/how-anti-slip-products-perform-in-the-real-world/>, (Published 07 Feb. 2022).

before the dew that accumulates overnight is evaporated leading to very slippery metal ramps during prime viewing hours.

Finally, benches need to be discussed. Currently *Massi di Cemmo* has a singular bench directly next to the entrance made of metal and wood, but it would be an asset to add a second bench closer to the sanctuary site. This would not only allow able bodied people to sit and take in the beauty of the site, but it would also provide a resting or waiting place for people with mobility issues if they are not able to go into the site itself. In addition, the bench would also be far enough away from the entrance to not incentivize people to enter illegally to interact with it.⁴⁶⁹ The addition of this bench could also be a great opportunity for community outreach, whether that is by hiring a local artisan to create it or running an experimental archaeology class where kids are able to engrave a stone using the same methods as those identified at *Cemmo* and *Naquane*, that will then act as a bench, or something else entirely. Not only would this make the park more physically accessible, but it would also create a form of community buy-in that is what enables small sites like *Cemmo* to continue into the future with support.

The next subsection will discuss changes or additions that can be made in an intangible manner, or not physically to the park itself. While they do not necessarily require a large investment, they are more than worth considering.

6.2 Additions and/or Changes for Communication and Connection with *Massi di Cemmo*

The second subcategory of suggestions is that of Additions and/or Changes that are related to Wider Communication and Connection with the site. By promoting Wider Communication and Connection in the form of additions/changes, one encourages modifications to the resources available to the public about the site, both physical (but that are not located on site) and on the internet. This section will focus on enhancements primarily made online which means that there will be a wide range in the monetary investment required, as viewed on the Perceived Monetary Cost matrix, due to the fact that some proposals can be done by a layperson with basic computer knowledge, and some require specific skills or training.⁴⁷⁰

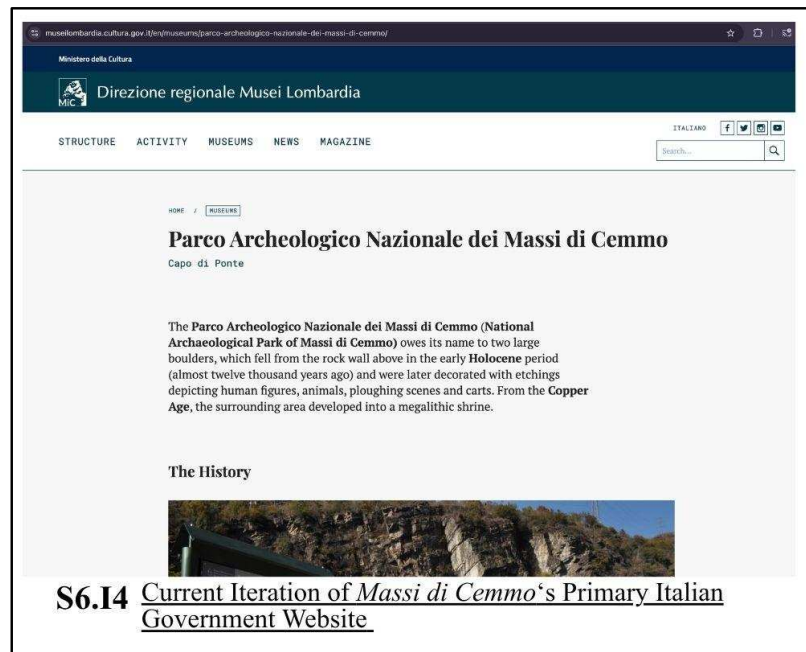
⁴⁶⁹ This was something discussed in one of the further suggestions given by a national park that asked not to be specifically cited.

⁴⁷⁰ Specific skills require an expert of some kind, who will need to be paid for their work.

6.2.a Consolidation Using the Internet

As almost anyone living today can attest, the internet is a powerful tool. It is able to provide people with access to information our ancestors could only dream of in the blink of an eye. Currently more than 75% of the world's population uses the internet, and that number continues to grow.⁴⁷¹ This reach allows the 'web' generally, and more specific technology like social media, to connect people to places that they could consider exploring.⁴⁷² Social media would not be a good fit for a place like *Cemmo* as there is no regular staff on site, a well-designed website can provide a positive user experience with a less hands on approach.⁴⁷³ Currently the *Direzione regionale Musei Lombardia* is in charge of the primary website for the *Parco Archeologico Nazionale dei Massi di Cemmo*, but other organizations such as UNESCO also have official websites that discuss *Cemmo* in detail. This multi-organizational type of 'ownership' leads to the first part of the proposal for this subsection.

Upon beginning to plan a visit to the site, a visitor will soon learn that there exists a plethora of government or international organization websites about *Massi di Cemmo*. This made finding accurate information very difficult as what information about *Cemmo* was available changed depending on the website used and who its curator was. It was made more confusing as some of the websites were given input by the same agencies/curators but had slightly different information or had access to different types of the same resource. As a result



of the challenges, the first proposal is an audit and the creation of a 'Queen' website to consolidate what is available about *Cemmo* on the web. A 'Queen' website, like a queen bee, is the manager and organizer of many smaller individually functioning websites (bees). Its job would be to consolidate all of the information about *Massi di Cemmo* coming from government or other official sources into one online location with an organizational structure that allows for flexibility but also ensures that data provided to the general public is correct. This is by no means an easy task, but it is one that would probably fall in the 'Medium

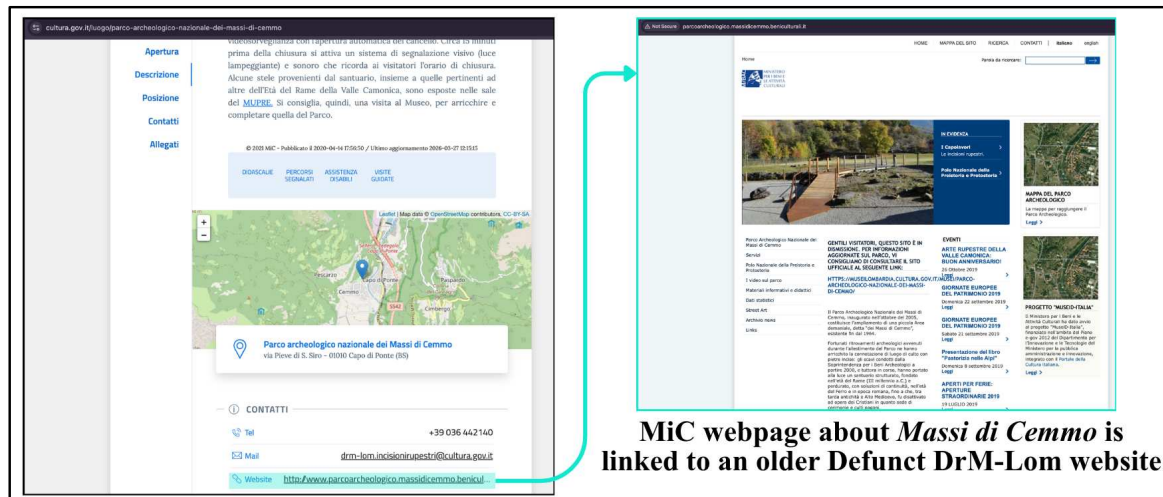
⁴⁷¹ <https://www.itu.int/itu-d/reports/statistics/2025/10/15/ff25-internet-use/> (26 April 2026).

⁴⁷² WICHMAN 2024.

⁴⁷³ JONGMANS *et al.* 2022.

Investment' zone of the PMC matrix.⁴⁷⁴ This larger goal would require several sub steps which will be explained below.

First and foremost is an audit of existing websites with a scope that can be scaled up



MiC webpage about *Massi di Cemmo* is linked to an older Defunct DrM-Lom website

and down depending on monetary and time limits. An audit in this context would mean analysing all officially sanctioned government websites to see if the general information is factual and matches across sites.⁴⁷⁵ Very basically, this would include operating hours, up to date contact and personal information, accurate map inserts, etc. If one had the opportunity to go further, going to all websites that link a government site and making sure that those links are correctly connecting to the most up to date website would be a good use of time. An example of why this is significant is because the *Ministero della Cultura* (MiC) site page about *Massi di Cemmo* is linked to the no longer updated *Direzione regionale Musei Lombardia* (DrM-Lom) website whose information is no longer correct and was last updated in January of 2025.

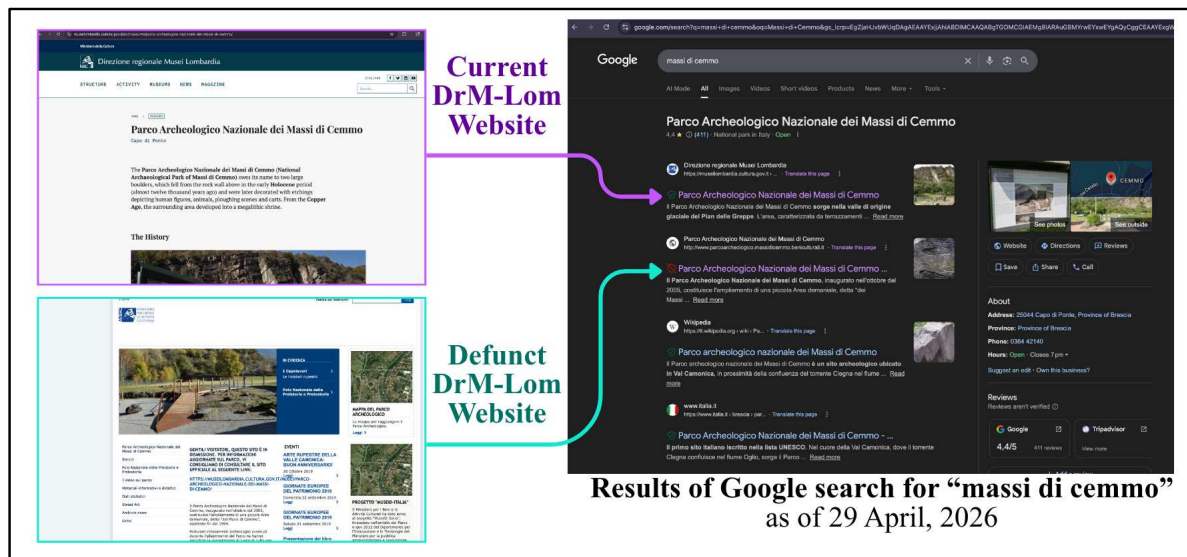
In relation to this previous point, the second sub step of this process (which could be included in the audit depending on how one organizes it) is getting rid of the old, and no longer usable DrM-Lom website. It is possible to get your website delisted from Google and other search engines, which is very important because when one searches *Massi di Cemmo* on google, the second available link (above even the UNESCO or the MiC sites) is the non-functional DrM-Lom site.⁴⁷⁶ While the old site is still clickable and its cover page has a link to the new website, it seems ineffective to continue to have this site hosted on a web browser. This is also confusing as both of the websites are run by an office in the MiC and therefore both seem like trustworthy sources, except that one is completely out of date. There is no publicly available reason for its continued existence, but one could assume that it is due to the want/need to keep information available from areas of the site that would be lost if it was

⁴⁷⁴ It could be done with AI and one person, but probably more efficiently and aesthetically pleasing with a small team of people who have expertise in the website building arena.

⁴⁷⁵ For this project, officially sanctioned government websites are determined by looking at who is providing funding for the creation of the websites as well as acknowledgements or if it explicitly says it is a government website.

⁴⁷⁶ <https://support.google.com/webmasters/answer/7479439?hl=en> (26 April 2026).

deleted. If that is the case, though tedious, there is a way to fix this issue: the building of the ‘Queen’ website discussed in this section and uploading the information there (though this



concept will be discussed further along in this subsection).⁴⁷⁷

The third sub step is another audit, but this time of resources (such as maps, bibliographies, audiotours, etc.) available through the various websites about *Massi di Cemmo*.⁴⁷⁸ An excellent example of why this type of audit is needed is in regard to the accessibility features available online, specifically audiotours. In searching to learn more about *Cemmo* and to see what accessibility features exist, one comes across three different audio tours hosted on two different platforms, all by local, national or international government agencies, exactly one of which was linked to the main DrM-Lom website. As some of them had an English tour option this researcher was able to listen and found that the information in each was slightly different. Needless to say this discovery was upsetting for a multitude of reasons, but especially because when first visiting the site people would have no idea that any of these resources were available to them.⁴⁷⁹ If these resources were clearly identified and put in a single location (such as a tab on a website that says “Audio visual tours of *Massi di Cemmo*”) visitors who need them would be able to find and use them, and redundancy could be avoided. This would save time and money for the organizations that chose to create these resources, as well as groups who may consider doing so in the future because it would be clear that resources that met specific needs were already available. The

⁴⁷⁷ There may be a way that is not tedious, but you would need to find an expert to assist with this as the only way a layperson would know to do it (hours of copying and pasting) would take several days.

⁴⁷⁸ In a perfect world, all of the local, national and international agencies would work together to create a singular, comprehensive and accessible website that covered all of the pre-historic, historic and UNESCO sites throughout Valcamonica. This action would mean that there was only one government approved website to update for everything relating to the human past of the valley therefore limiting time and monetary investment across agencies and allowing people to access accurate information without getting lost or having to go to the 5th page of Google search results.

⁴⁷⁹ For a disabled person, or someone with no background in the history of Valcamonica these would have been very helpful and were sort of challenging to find. Two of the four resources required a potential user to adventure past the first search page of Google, something many would not do.

website could keep all of the versions available but picking one would improve long term sustainability. By pairing down the amount of audio visual guides to one, clear, main, well researched version, organizations could ensure that everyone was receiving the same correct information, no matter their disability or age.

Once all of these sub steps are completed the next and final step before actual website construction would be to amalgamate the information collected and create the categories and other organizational structures. By arranging and understanding the data available, the flexibility to allow future changes without undermining the structure of the main website can become the foundation of this new build. In layman's terms, by knowing what is available through systematic review, the website built with the collected information will be able to



**Three Audio tour websites labeled by associated Agency
as of 29 April, 2026**

expand to handle technological changes without becoming obsolete or unusable. The goal is to build a new site with the future and functionality in mind. In looking over all of the government sanctioned websites many times, there are five main pages to be proposed for the 'Queen' website:

- Home - includes: basic information about physical access to the site as well as accessibility features, contact information, upcoming special events, etc.
- Explore the Past - Includes: sections on Archaeological discovery, History of discovery and presentation, development of the national park, etc.
- Connections within the Valley - Includes: discussing *Cemmo* as part of one of the eight UNESCO parks, how the sanctuary is one of a larger series of sanctuaries, trade routes as explored through archaeological findings, etc.
- Community - Includes: how *Cemmo* is viewed in relation to Capo di Ponte, what things you can do in the community to learn more, its relationship with MuPre, local artisans and rock art as inspiration, community events pertaining to rock art, getting involved, etc.
- Further Resources - Includes: freely available scholarly information/articles, high resolution photograph archive, oral histories archive⁴⁸⁰, Educational Material for Teachers, Archaeologist-in-Training Programming, archived information from old websites, etc.

These five pages are vague enough that they could fit almost any additional information one would need to add, while specific enough that the website is still navigable.

⁴⁸⁰ This idea is discussed in Section 3

The next step would be the actual process of building the ‘Queen’ website, or the overarching governmentally approved/endorsed website that consolidated all of the previous ones. Studies in other places in Italy, specifically Naples, have shown how a disorganized and noncooperative web presence can make visitors’ trips more effortful and confusing.⁴⁸¹ The creation of an organized, updated and all-encompassing type of governmental website could lead to more enjoyable and less stressful holidays. The site would also be equipped with a search function to make finding particular information easier to the user as well as being aesthetically pleasing to help with functionality.⁴⁸² As there was not enough time currently to build a beta version, a visual example of what this website could look like available in Appendix H. This subsection will be the hardest to accomplish of the intangible suggestions, as it will require a lot of interorganizational collaboration. Working together is challenging on a good day but can be made even more difficult due to the bureaucracy that surrounds changes in governmental programming and jurisdiction, both of which Valcamonica is rich with. Despite this, as the internet becomes a greater part of daily life, it is imperative that factually correct information is freely available and easily accessible to all. This idea of information as vital to understanding and valorization will be discussed further in the next subsection.

6.2.b Teaching Materials: Learning before or beyond a Visit

One of the most frequently highlighted points from the survey of National Parks around the world in Section 5.2 was the importance of education. For the park staff that replied, education was seen as the primary way to get people interested in rock art generally, but also in its preservation. Unlike many of these parks, *Massi di Cemmo* does not have full time staff to help visitors interpret the importance of the site and instead must rely on signs or the internet. That is not completely true though, as there is a third avenue, teachers! Statistics show that the primary visitors to *Cemmo* are Italian students, which means that when they visit, they bring their own interpretive ranger.⁴⁸³ The next proposal is for the creation of free and available materials/resources about the human past in Valcamonica and more specifically about *Massi di Cemmo*.

Before introducing the suggestions, it is important to take a moment to consider why materials/resources like what is being suggested are so important. There are three primary reasons: the proliferation of misinformation and the detrimental effects that can have on education, the teaching of empathy through wonder, and self-preservation. Focusing on the first point, the availability of information (both truthful or not) is something that scholars from any prior age would envy. Unfortunately with this democratization of knowledge, there comes an influx of “sensationalized information,” that is “popular ... irrespective of accuracy.”⁴⁸⁴ This in combination with a study from 2016 found that even students who had grown up in a media rich landscape were struggling to determine what credible information

⁴⁸¹ SCIARELLI *et al.* 2018, 190.

⁴⁸² JONGMANS *et al.* 2022.

⁴⁸³ POGGIANI KELLER *et al.* 2009b. 250.

⁴⁸⁴ JIN *et al.* 2024.

looks like online, is very concerning.⁴⁸⁵ Beyond just inaccurate information, there has been an explosion of AI content, which in a recent study has been shown to manipulate facts to embolden persistent false beliefs, boost polarization and foster anti-social management decisions.⁴⁸⁶ All of this together paints a bleak picture of the informational landscape available to developing minds (though it is important to remember that the existence of misinformation does not mean it is accepted by a majority of people⁴⁸⁷). Not all hope is lost though, as this is a moment when government agencies can step in and provide support in a meaningful but inexpensive way. By providing educators with materials and resources that are backed by scholarship, they are more likely to attempt to teach something outside their field of study.⁴⁸⁸ As most teachers are not trained archaeologists or historians, providing resources for them to use while teaching then allows students to interact with “the well-researched theories, methods and types of evidence that lead scholars of the ancient world to form the hypotheses and conclusions that they do.”⁴⁸⁹ This support also gives teachers the opportunity to demonstrate the difference between concrete facts/inferences based on scientific methods and guesswork through open-ended questions and perpetual asking of “How did it [the artifact] get here?” and “How do you know that?”. By having resources free and available about it, *Massi di Cemmo* can empower students and teachers alike to take a deeper and more scientific look at prehistory through the lens of archaeology, a field that requires critical thinking, cooperation, and reliable documentation. All of which are skills that should be encouraged and nurtured as tools to fight back against media illiteracy and misinformation. Studying prehistoric archaeology also allows students to encounter the unknowable,⁴⁹⁰ and explore the difference between what is feeling and fact, specifically how facts require evidence backed by research and how feelings displayed as facts can be harmful to the global information network.⁴⁹¹

This does not mean that prehistory cannot be used to explore or teach feelings, especially empathy. Dr. Pinar Durgun, a trained archaeologist with a passion for educational outreach said it best, “Learning about the ancient world makes us more empathetic humans.”⁴⁹² It helps practice the basic skills that build empathy, acknowledging personhood, interpersonal connection and reflection. Empathy, which is a vital interpersonal skill, seems to be at a deficit in schools as of late with incidences of suspension due to racist behaviour rose by 18.6%.⁴⁹³ This is extremely unfortunate as research shows, “it [empathy] is an

⁴⁸⁵ <https://ed.stanford.edu/news/stanford-researchers-find-students-have-trouble-judging-credibility-information-online> (Published 22 Nov. 2016).

⁴⁸⁶ PARK *et al.* 2024.

⁴⁸⁷ ADAMS *et al.* 2023.

⁴⁸⁸ <https://www.education-progress.org/focus/2-teachoutfield>. (22 May 2026).

⁴⁸⁹ DURGUN 2020, 34.

⁴⁹⁰ It is hard for kids, both neurotypical and not, to understand that there are just somethings in this world humans today will never be able to know without a time machine. Experience has taught that this makes some children feel big things (specifically anger and sadness), so prehistory (in the European context) offers a way to explore these existential feelings through a real-but-distant lens that is unlikely to truly harm the child feeling them.

⁴⁹¹ DURGUN 2020, 34.

⁴⁹² DURGUN 2020, 15.

⁴⁹³ <https://www.familyandchildhealth.com/content/comment/teaching-empathy-can-have-a-positive-impact-on-behaviour-and-tolerance> (Published 20 Sept. 2024).

essential capacity for the development of the social dimension of the child's life, in order to enhance quality relationships and prosocial attitudes."⁴⁹⁴ Luckily, empathy is something that can be taught and then regularly exercised through practice.⁴⁹⁵ Prehistory is particularly good at exercising empathy skills as no writing means that the people of the past are unable to explain themselves in their own words, leaving us to figure out what was important from scraps left behind.⁴⁹⁶ What is available to us is the emotions and feelings that people undergo in a given situation, the only truly shared human experience, which creates a connection across the ages.⁴⁹⁷ With students of all ages interacting with the human past, one of the most common emotions I encounter and encourage while teaching is Wonder. Explaining to kids how thousands of years ago someone just like them, sat in the same place, maybe thought similar thoughts and felt the same feelings, is an experience they are not likely to forget.⁴⁹⁸ Harnessing this wonder to inspire feelings of fascination and excitement and to foster connections with people of the distant past allows educators the opportunity to practice empathy in a way that is both concrete and cerebral and allows learners to experience emotional growth while adding "to a continuing dialogue about the past."⁴⁹⁹

Finally, in the context of *Massi di Cemmo*, inspiring children to get excited about prehistory is an act of 'self-preservation.'⁵⁰⁰ Today's students are tomorrow's leaders, and to continue to receive funding and care, it is in the best interest of the site to foster Place attachments, which are at their core, "individual experiences of a place resulting in the development of meaningful and emotional bonds for visitors..."⁵⁰¹ This type of attachment requires an emotional bond between visitors and *Cemmo*, something that can be created through investment in education. By deeply exploring *Cemmo* before, during and after a visit students are encouraged to engage in *seeing* instead of just looking and therefore creating a connection to the place and an overall more exciting experience.⁵⁰² Overall the goal of this section of the proposal is to show how providing educational resources is a worthy investment for the future good of *Massi di Cemmo* as well as how relatively easy and low cost it is to do.

The creation of educational materials can come in two forms, though one that is significantly less expensive than the other. The first kind is a collection of physical learning materials about one specified topic, such as primary sources, models, replicas of archaeological finds, and other objects that can be handled by students again and again, that are put together in one container. This container (examples include a bucket, or most

⁴⁹⁴<https://www.unicef.org/innocenti/media/5071/file/UNICEF-How-Emphasizing-Develops-Affects-Well-being-Childhood-2021.pdf>, (Published 2021).

⁴⁹⁵<https://www.familyandchildhealth.com/content/comment/teaching-empathy-can-have-a-positive-impact-on-behaviour-and-tolerance> (Published 20 Sept. 2024).

⁴⁹⁶ This does not by any means give us license to make up facts based on feelings or assume how people may have existed in the past, but it gives us the opportunity to feel how they may have felt.

⁴⁹⁷ This is more of my philosophical leanings, but beyond basic biological function, the one that all people can share, no matter the time and place, is the experience of emotion as it needs no words, no actions, no instigating moment, they have just always been there.

⁴⁹⁸ DURGUN 2020, 28.

⁴⁹⁹ CHATTERJEE, HANNAN 2015, 89.

⁵⁰⁰ In this sense, Self is referring to the national park and its continuation as such.

⁵⁰¹ PUNG *et al.* 2025, 397.

⁵⁰² DURGUN 2020, 26.

commonly in the US a trunk), is then located at a public place like a library or museum, where teachers can ‘check it out’ and use the resources found in it to teach a specific topic in a more multimodal

REVOLUTIONARY WAR

Learn about the Revolutionary War through multiple perspectives such as those of common soldiers, officers, families, community members, and others. Lessons include object-based learning, primary sources, and digital components. This trunk is available for free through a grant through the [Society of Cincinnati](#).
Grades 4-8. Cost: FREE



S6.15 Example of a collection of Physical Learning Materials
provided by the Maryland Center for History and Culture as part of their “Traveling Trunks” program

way. The second kind is through an online archive/collection of digital lesson plans and activities related to specific topics that are often in connection with overarching topics such as historic events, economic activities, important

sites and others. Before creating this, one would have to ask: What would these look like in the context of *Massi di Cemmo*? And below are proposed examples with general notes so that they can be recreated to stay up to date with research done at the site.

There are two ways in which this learning experience could be approached, from an archeological or prehistoric perspective, both of which would highlight differing but still important aspects of the site. The archeological version would be stored in a Total Station case, or something painted to look like one, specifically the older yellow kind (See Appendix I). The objects inside of this case would include:

- Archeological tools: Trowel, work gloves, brush, a digital camera (an older or donated one), letter board for picture identification, compass, Arrow and measuring strips, and an example excavation journal
- USB drive with Explanations, Activities print outs and teacher instructions
- Printed copies of the *Soprintendenza Archeologica Della Lombardia: Notiziario* pertaining to Cemmo (Years: 1981, 1983, 1984, 1994, 1999-2000, 2007, 2010-11, and 2012-13)
- Archeological photographs of the Excavations at *Massi di Cemmo* through the years.

The example excavation journal would contain notes about observations, site maps (sketches and computer drawn), sketches of objects found, stratigraphic data and examples of what an artifact tag for the *Cemmo* digs would have looked like. The presentations located on the USB would go through each tool and give an example of how it was used and then ask open ended questions to encourage discussion and deeper understanding. During this time, students would be able to interact with the physical object as it is discussed. USB would also contain activities, such as having students draw a site map,⁵⁰³ create a chronological timeline using

⁵⁰³ Students would look at and notice things about the site maps in the journals and the ones that are larger in the presentation to go with this activity. The teacher would set up a trench (a classroom rug if it is rectangle would be a great option) and lay objects in it to create texture. Students would break into 3 teams: 1.) creating the trench label sign using the example, 2.) figuring out the directions using the compass and placing the arrows and measurement tools, 3.) taking pictures of the trench from above using the old digital camera. From there students would surround the trench and try to draw the important pieces of it. Afterward everyone will lay out

the *Notiziario*,⁵⁰⁴ or a Venn diagram activity where they would use their newfound archaeological knowledge to compare and contrast archaeology and treasure hunting. The prehistoric perspective version would be stored in a medium sized Birch bark basket (See Appendix I).⁵⁰⁵ The objects inside of this basket would include:

- Artifacts found at the site: Replica stone tools (such as a Burin, a blade, arrow heads and scrapers), a small piece of appropriate animal hide (to show how scrapers worked), a life size replica of Cemmo 5, a miniature replica of Cemmo 11/19, tracings of Cemmo 1 and 2, and replica square mouth pots.
- USB drive with Explanations, Activities print outs and teacher instructions
- A Moveable timeline Puzzle
- Physical copies of Site Maps and photographs pertaining to the Stelae Pit
- Flashlight with different light flashing modes

The presentations located on the USB would go through each artifact and explain where it was found, leaving small breaks for students to handle the objects and try and figure out how they were used before informing them of their probable uses. This would then be followed up by a series of open-ended questions that encouraged students to put themselves in the mindset of the people who made the artifacts and examine how their world would have been different. The USB would contain activities like Ordering the timeline,⁵⁰⁶ Rock Stories,⁵⁰⁷ and the Decommissioning.⁵⁰⁸ These two sets would allow students to explore *Cemmo* from two very different temporal directions, archaeology looking backwards and the prehistoric perspective looking forwards. Once the sets were established, the next big issue would be getting them to

their drawings, and the class would take a gallery walk while kids took turns explaining why they highlighted each part.

⁵⁰⁴ Students are assigned into small groups and given a *Notiziario* where they read through and create a summary while highlighting important pieces of information like dates. After a given amount of time, class will meet all together and students will present what they learned from their *Notiziario* and then with teacher assistance, together they will attempt to figure out when different things happened and create a cohesive site map. This will then be compared to the correct one from the USB and students will go through and make changes once they have found the information they missed.

⁵⁰⁵ Reminiscent of the one Ötzi carried

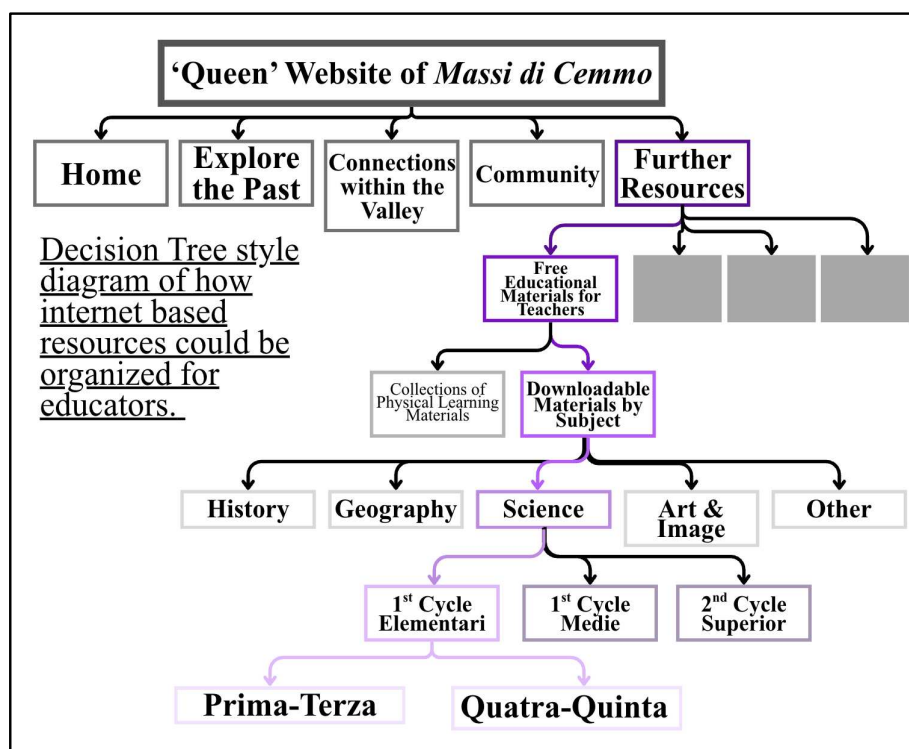
⁵⁰⁶ In this activity, the students would lay out the timeline puzzle on the floor (which would have a graphic of what the site looked like at the time as well as some of the artifacts from the specified period), they would then have to work together to complete the puzzle. Once it was complete students would split into groups per section of the timeline and examine the objects and the site. After an allotted amount of time, they would have to explain what they thought the objects and the site was used for during their time period. Other students would be allowed to ask questions and then as a large group they would go over the correct answers. It is an activity that focuses on healthy and well-reasoned discussion.

⁵⁰⁷ The teacher would allow students time to examine the replica stelae and then write a story about the engravings on the stelae. Next the teacher will turn off the classroom light and shine the flash from the top of the stelae and have students write a new story about what they see now. Finally the teacher would shine the flashlight from the bottom (using a fire-like strobe mode or an opaque cloth that can be moved occasionally to give a fire-like effect) and then once again have students write about the story they see. Afterward the classroom lights are turned on and students share their stories and then discuss as a large group what angle/lighting they think the stelae were created to be viewed from and why.

⁵⁰⁸ Students would examine the documents from the excavation of the Stelae Pit, while the teacher would read the findings from the *Notiziario 1999-2000*. A map of the area from the late roman period and then a map of the site today would be put on the board so students could see where the stelae were found in the context of when the site was decommissioned. The teacher would then ask questions about how the hole location was chosen, why the site was dismantled after so long, how people may have been feeling as they took the ancient site apart, etc. This activity would be more of a socratic seminar style exploration in the changes of the culture of the valley and the causes behind it.

educators. This part ties into the website updates from the site before, specifically the “Further Resources” page, where in an ideal world teachers throughout Valcamonica would be able to sign up for a date to check out one of the collections of physical learning materials online.⁵⁰⁹ The sign up would act as insurance as there would be a record of who had it when and where something is missing or broken and also to make sure people didn’t fight over where it was meant to be on a certain date.

The next type of resource would also ideally be located on the “Further Resources” page of the *Massi di Cemmo* website, preferably under a tab labeled “Free Educational Materials for Teachers,” or something similar.⁵¹⁰ Though small, *Cemmo* offers a lot of different avenues to explore required educational standards for *1st Cycle Elementari* students, particularly in the categories of History, Geography, Science, and Art and Image.⁵¹¹ To make this resource as accessible as possible, one could label the provided materials by focus, then Cycle and finally grade range as can be seen in flow chart form to the left. Within this final



level organization, one would find ready-to-teach resources about *Massi di Cemmo* which could include fully written lesson plans with any printable materials, groups of primary resources with explanation presentations, sets of need to know vocabulary, mapping kits, etc.⁵¹² These can then be used as needed in

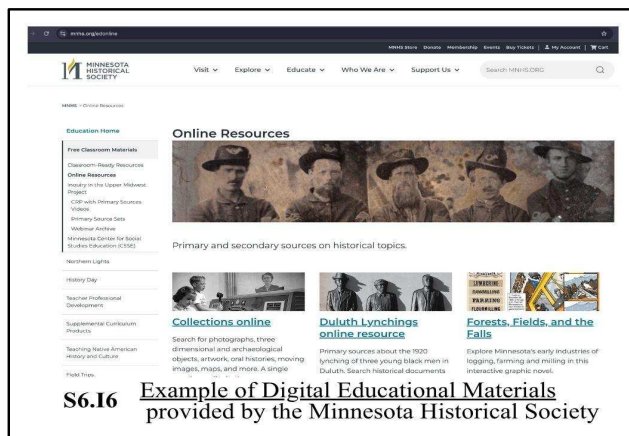
classrooms as they are already set to go, either as supplemental materials to existing lessons, full lessons on their own, or as pre-teaching for a field trip opportunity to *Massi di Cemmo*.

⁵⁰⁹ Preferably this program would have a snappier name, but the title should be decided by its purveyors.

⁵¹⁰ The scope of examples provided for this section have to do with the author’s area of expertise which is Elementary Education, or 1st Cycle Elementari in Italy. As a result, there will be a focus solely on this level of schooling.

⁵¹¹ For this project, the required standards for these four categories were carefully translated and organized into a format that was more familiar to the authors (As can be seen in Appendix J).

⁵¹² See Appendix K for an example lesson plan.

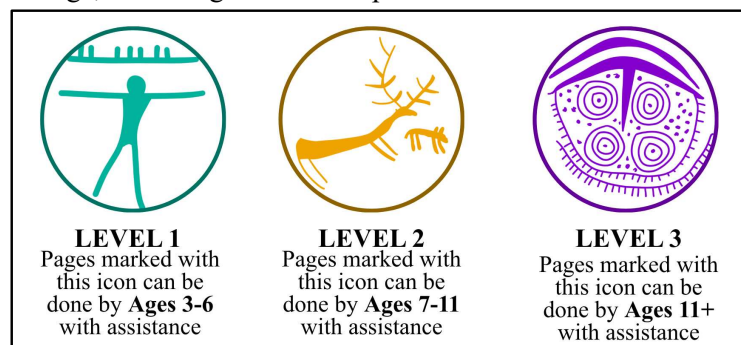


The goal of this section of the project is to educate and by making teachers' lives easier by prompting learning opportunities that may not have happened otherwise.

6.2.c Interactive Learning through an “Archaeologist-in-Training” Program

Another educational opportunity that many parks around the world offer is a Junior _____ program.⁵¹³ These programs are targeted towards kids but are available for use by everyone as a way to promote further engagement with the park and educate on matters of preservation and conservation. Parks will often change the job title in the program name to best fit the context in which the park exists, examples are Junior Rangers, Junior Paleontologists, Junior Conservationists, Junior Scientists, Junior Archeologists, and many others.⁵¹⁴ A suggestion as a way to further engage with visitors is through the creation of an ‘Archaeologist-in-Training,’ modeled after the ones discussed above. The goals of a program like this in the context of *Cemmo* would be to function as an introduction to harder sciences used to explore the site and a deeper dive into what makes the human history of the area unique. To understand how this would work, there is a sample version in Appendix L, and will now explain some of the general tenants shared across Junior _____ programs.⁵¹⁵

First and foremost, these are programs for everyone, which means that they must take the age, knowledge and developmental skill level of all visitors into consideration. Many



parks use a leveled system determined by age to show how much work a visitor must do to become a Jr. Ranger. In the case of the example, there is the opportunity to use a similar system that is both colour coded and demarcated by

⁵¹³ Most notably in the U.S., Canada, and Australia

⁵¹⁴ I can speak for these specific titles as they have all been bestowed upon me when I was younger.

⁵¹⁵ From this point on they will be referred to as Jr. Ranger programs to limit the amount of blank spaces/underlines must be added to the text.

different phases of rock engraving found on the stelae of *Cemmo*. The symbol choice is explained with further detail in the actual sample. To become an ‘Archaeologist-in-Training’ visitors will have to complete all of the pages marked with their corresponding level system symbol. As one could assume there will be less activities targeted at Level 1 than Level 3, and those for Level 2 and 3 will require more complex thinking and motor skills. On the topic of knowledge, *Cemmo* is a *World* heritage site, the program would exist in both Italian and English, so as to match the signs at the site and also have a wider audience.

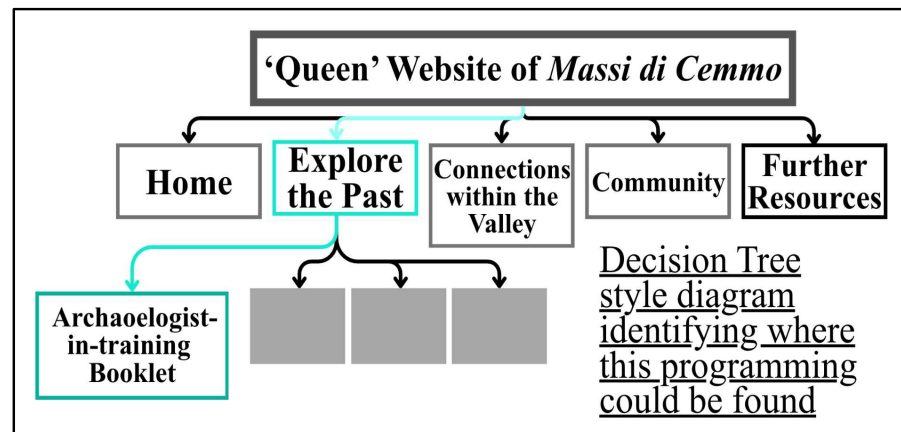
The next phase of consideration was the amount and type of requirements required to earn the reward. *Cemmo* is a very small park, even when compared to others in the valley, so there is not as much space to explore, and only one hiking path. Many other parks require people to fill out the Jr. Ranger booklet and go on a hike or attend a program or generally do something that leads to a deeper interaction with the park, *Cemmo* unfortunately does not have the breadth for that level of involvement. To adjust to this reality, there are more hypothetical topics, and ones that expanded the reach to just beyond Pian della Greppe. The example activities about glaciation highlight both of these as they discuss how glaciers shaped Valcamonica and then ask the visitor to explain why they think people of the distant past would choose to live here using the information they just learned about glaciers. Other topics that could fall under this umbrella include the native flora and fauna of Valcamonica and how it has changed since humans first came to the Valley, exploring archaeology beyond just excavations, and *Massi di Cemmo* as part of a Copper Age collective of sanctuaries.

Finally, from an outside perspective, this type of programming seems as though it would require a lot of monetary and time commitment, something that *Massi di Cemmo* is just not

currently equipped to handle. This isn’t necessarily true, many parks cannot afford the high level of investment on display at places like

Yellowstone

National Park in the US, but the internet can act as a great equalizer. If the ‘Archaeologist-in-Training’ program was marketed on site at *Cemmo*, and the booklet was placed on the ‘Queen’ website, it could be accomplished with a very small level of commitment. The reward for completion of the booklet to the required degree is usually a pin or a patch at other National parks, but anything that is unique and ‘collectable’ also works (i.e. stickers, a fun looking rock, etc. depending on budget). Ideally the front desk workers at the MuPre would



be asked to act as proxies in handing out the chosen reward and filling out the little completion certificate located on the back of the booklet (See Appendix L).⁵¹⁶

Jr. Ranger programs were often the highlight of my visits to parks, and they continue to be to this day. Providing this resource virtually or in a little covered box on site would cost very little and provide educational enrichment for visitors both on field trips and on personal visits. It would also work as a tool to introduce people to new concepts and fight back against misinformation in a way that is whimsical and interactive.

6.2.d Community Connection and Consideration

The final suggestion is to reach out to the Capo di Ponte community and work to reaffirm and/or build long lasting connections. As this researcher is not a local and is unaware of the politics that play into the relationship between the national park and the townspeople, take all suggestions from this subsection lightly. The goal for this subsection was to propose some ways for people from the community to share their history and connections to the land, while maintaining the perceived outsider ‘integrity’ of *Massi di Cemmo* as an archaeological site.⁵¹⁷ There are many ways to go about this building of connections, but this project will highlight creating historical infrastructure and working to preserve the past through local artistry.

The idea of building historical infrastructure in the context of the local community would entail uplifting the more recent past. The people of the Valley have always had a connection with the land as their actions shaped it, and the land’s existence and natural cycles shaped their actions. After the introduction of Christianity, rock art became a way to demarcate boundaries and identify areas of typical land use, but it was also brushed aside in favour of announcing the anthropic cultivation of the land.⁵¹⁸ One of the ways this is clear is through the use of terracing, some of which can still be seen inside of the park at *Massi di Cemmo*. Terracing has been used in Pian delle Greppe since at least the Iron age, when it was probably used for grazing, but it evolved and expanded over time, eventually allowing for the creation of the Vineyard that existed on the site when the Cemmo boulders were ‘found’ in the early 20th century.⁵¹⁹ This typical use of land could be highlighted through signage on site, educational materials, and even in the ‘Archaeologist-in-Training’ booklet. Not only does it create a distinct and visible connection from the distant past to the modern era, but it also allows people of the valley to see their continued use of the sanctuary after its decommissioning as not inherently destructive or culturally ‘useless’ as has been implied by some archaeologists and historians in the past.⁵²⁰ In tandem with this signage/online

⁵¹⁶ This could be a win-win scenario, people learn about *Cemmo* which plays a large part in the contents of the museum, and the front desk folks get to meet some very enthusiastic young visitors.

⁵¹⁷ It is important to reiterate that the people who live in Valcamonica today may be genetically related to those of the Late Iron Age and Early Roman Period, but they are culturally distinct from the people who engraved the rocks and used the sanctuary. There is not the spiritual or cultural ‘indigeneity’ that exists around other rock art sites like those in the US, Canada and Australia. This does not mean they are not important to the people of the valley, just that they are utilized in a different way that the rock art’s creators originally intended for them.

⁵¹⁸ CHALCRAFT 2009, 139.

⁵¹⁹ POGGIANI KELLER 1995.

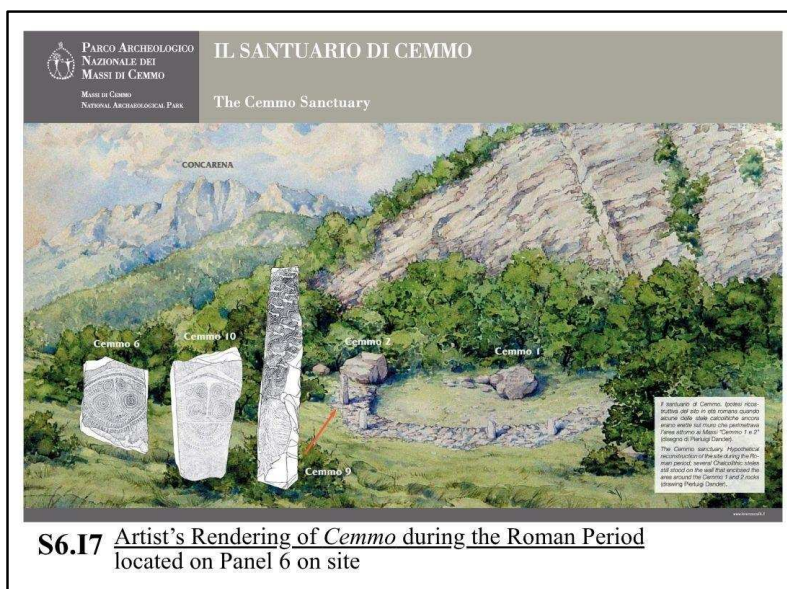
⁵²⁰ CHALCRAFT 2009, 136-140.

information, a tab on the 'Further Resources' page could be added that acts as an archive for the History of *Cemmo* from the perspective of Local people, which could include folklore, artistic interpretations, oral histories, pictures, etc.⁵²¹ This way people are encouraged to interact and share their stories and memories creating a form of living history bank that can be preserved for future generations.

The other way to folks involved is through the use of local artists. There are many things at *Cemmo* that could benefit from an artistic interpretation using archaeological data, specifically renditions of the site's changes over time. Currently there is only one artistic rendition of what *Cemmo* may have looked like during the Roman Period on site, while beautiful is missing some important elements such as the Roman Road and the

robust terracing. One suggestion is having a local artisan work with an archaeologist familiar with the site to create a series of drawings, or paintings that show what the site may have looked like during various periods of its long life. This would include adding people to the painting showing them doing things that archaeological evidence has been found of at the site, like building and rebuilding walls for the enclosure.⁵²² In addition to these new site renderings, there is the matter of the proposed bench from Section 6.1e, which could also be made by a local artisan and then identified as such with a plaque.

Beyond these smaller ideas, there is one larger suggestion that could increase the perceived value of Massi di Cemmo in the eyes of the community, but it would require a Large Investment as identified by the PMC matrix. This is to hire a small number of people locally to actualize the propositions of this project. There is a valid concern that many young people are leaving the valley in search of work.⁵²³ While this solution would not solve this problem by any means, it would give more cache to what was produced as community members would know who made it and the work that went into it.⁵²⁴ This job would involve updating the website, graphic design, collecting and digitizing stories and other artifacts,



S6.17 Artist's Rendering of *Cemmo* during the Roman Period
located on Panel 6 on site

⁵²¹ This archive would not be limited to only talking about terracing, that was just a very visible example of the continued effect of anthropic changes done to and at *Cemmo*.

⁵²² BAIONI, POGGIANI KELLER 2014, 98.

⁵²³ CHALCRAFT 2009, 140.

⁵²⁴ Local people are also far more likely to be given good information as they are perceived as insiders, something that can be seen again and again in the scholarly history of *Massi di Cemmo*.

working with people (but specifically children and the elderly), taking data, talking to experts, and more. It would be a lot of work, but in the long term it would provide a well-documented legacy that could far beyond Valcamonica itself.⁵²⁵

6.3 Best Practices for Future Changes

In education, best practice can mean many things, but at its core it is leveraging research and experience to try and create the best possible outcome for the people one works with. Being a well-rounded educator requires a practice rich in reflection and re-evaluation to determine what could be improved to reach a given goal in the future. The goal for this project was to valorize the importance of *Massi di Cemmo* due to its unique features and relative obscurity. The suggestions promoted here will hopefully meet this goal, but as



S6.I8 Accessibility means Creating a Dialog
including those who are affected by changes made

always, there is room for improvement and expansion. In reflecting on this project there are some new suggested forms of best practice for anyone working to uplift this *Cemmo* in the future. Specifically, talking to the communities affected by proposed changes (like disabled people, elderly

people, etc.), taking data to determine the demographics of site visitors (so that changes made can more accurately fit target groups)⁵²⁶ and talk to kids as they can give a more focused peek into what the general population is interested in or curious about.

As explored in Section 5, many people with disabilities in the EU feel that decisions about them are made without them, which can then make said changes ineffectual.⁵²⁷ Before investing time and money it would make good sense to speak to the people who may be affected by the proposed changes so that they can inform you if action is really needed. If change is not needed, no harm done and money saved, if change is needed and there are additional proposals, taking the time to work out a solution with dialogue makes people feel

⁵²⁵ Jobs like these are not for the faint of heart, but they are vital to preserve what little is left of the small communities with unique cultures and histories that are rapidly disappearing.

⁵²⁶ Or if the data exists, make it publicly available.

⁵²⁷ LEAHY, FERRI 2024, 2472.

as if they are part of the community. By investing in the site and the people who use it, emotional connections tied to *Massi di Cemmo* could be formed through the process of listening and discussing. These working relationships are an additional boon beyond just monetary investment as people who have an emotional connection to the site are more likely to re-visit.⁵²⁸ This reciprocal cycle allows for positive changes to the site and visitors with more positive experiences.

Any scientist or teacher can inform you that without data, a problem or anomaly does not exist. Data is a physical record of what the baseline of a situation is as well as proof that something out of the ordinary is happening. In the context of *Massi di Cemmo*, taking reliable visual data could inform people in charge what the typical demographic of visitor is (age ranges), and how long they stay on site. More interactive types of data like visitor surveys can provide information on how they heard about the site, what they found interesting, where they are from and what they think could be improved. All of this information could be used to better direct changes made to not only to *Cemmo*, but also to MuPre. Feedback data could inform things like themes of special exhibitions, languages to offer information in, and missing accessibility features, all of which would be to the benefit of visitor experience. Data is also a great way to show that ideas and innovations in site enhancement are working and prove to grant givers⁵²⁹ that what they invested in is working in a very visual way. Taking data can only benefit *Massi di Cemmo* and provide more in-depth information for the next round of recommended changes.

Besides the fact that children are a large percentage of the total number of people who visit *Massi di Cemmo*, they can also offer great insight into the greater population. By acknowledging two anecdotal facts, that adults are just big children and children lack the ability to filter their thoughts the way an adult would, one understands that kids will give honest answers, even if one is not interested in hearing them. Understanding what kids find interesting gives a small and more straight forward insight into what adults may find interesting as well, which in turn can help guide the direction of specialized programming.⁵³⁰ Children are also willing to give very direct answers when asked specific questions with little to no thought for the asker's feelings. This can be very helpful as it gives a fuller and easier to understand picture of what the real issues are or where areas of improvement exist at a site like *Cemmo*. Younger children, between the ages of three and seven, are always willing and able to offer anyone their unfiltered thoughts and if one is willing to listen there is a lot to be learned. They are a great measuring stick to double check items before they are used in earnest, like the graphic design of a sign, if the pictures are easy to understand, if enough information is provided and anything else they may have access to. Asking a kid is an excellent way to *honestly* figure out what *Cemmo* can do better with regards to visitor needs moving forward.

⁵²⁸ PUNG *et al.* 2025, 405-6.

⁵²⁹ The government, private firms, etc.

⁵³⁰ Adults do not want to be shown as not knowing something, and as a result will not ask the basic questions, they don't understand the same way a child would.

Conclusion

As discussed, many times above, but particularly highlighted in Section 2, *Massi di Cemmo* is a fascinating place. It is incredibly old and shows almost continuous human activity/usage for what could be up to 11,000 before present.⁵³¹ The small archaeological national park provides a unique and important peek into the lives of people during the Northern Italian Copper Age, as well as how cultic sites evolve over time. It can also be reasonably argued that without Cemmo 1 and Cemmo 2, Valcamonica would not have the same level of world renown it currently enjoys as the ‘discovery’ of these two boulders drew scholarly interest to the valley. While *Cemmo* is small, it is significant in the development of the valley, both in the past and present and deserves to be treated as such. Currently it is not getting the interest and attention it deserves in my opinion, which served to spur this project and its goals into action.

The primary goal of this project is to demonstrate that there is more that could be done at *Cemmo* in the name of stewardship to appreciate, educate and valorize this remarkable place to the wider public, and suggest ways of making that happen. After a lot of research and taking into account delicate topics like the monetary investment available to the site and Local community relations with rock art, two types of proposed changes and/or additions were decided upon. Further, these suggestions also have a specific focus on accessibility for all, as *Massi di Cemmo* is the only park in Valcamonica that is considered fully physically accessible to people with mobility issues. They included the categories of physical changes and/or additions to the park to make it more bodily and informationally accessible, as well as suggestions on how to communicate and connect with more people in regard to the site through mediums like the internet. These categories were then further subdivided, all of which aimed to promote further engagement by visitors and make *Parco Archeologico Nazionale dei Massi di Cemmo* more appreciated. It is my hope that these heavily researched suggestions and proposals will be considered the next time there is an update to the site. The secondary purpose was to create a more in depth and archaeologically up to date timeline of the goings on of *Massi di Cemmo*. This was accomplished through hundreds of hours of digging in archives, translating works, and creating visual representations of changes at the site over time using excavation maps and photographs from the various Archaeological digs that have occurred over the years since its ‘discovery’ in 1909. As it exists now in Sections 2 and 3 of this work, it is compact, chronologically organized and cited, making *Cemmo*’s history much easier to comprehend.

Massi di Cemmo is a singularly unique place created by generations of human interactions with the land that is still in use, in some ways, today. It is my hope that this project will perhaps support the continuation of this legacy into the future.

⁵³¹ This is of course referring to the 700 years of abandonment and the unknown factors about usage during the Mesolithic period.

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Sourcing

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Image Citations

Sx.Ix	Description	Citation
		143
S2.I1	“Verrucano Lombardo with clear examples of glacial striations and water erosion”	Picture of Rock 3 at Naquane taken by Madeline Lamwers in early October 2025
S2.I2	“View from in front of Cemmo 1 at 9:02 on an Autumn Morning”	Picture from the Sanctuary of <i>Massi di Cemmo</i> taken by Madeline Lamwers in mid October 2025
S2.I3	“Photograph of ‘Cemmo 20’ and the small sanctified space in front of it.”	R. POGGIANI KELLER, <i>CAPO DI PONTE (BS), Località Cemmo- Pian delle Greppe: Lo scavo del santuario megalitico dell’età del Rame e sue preesistenze e persistenze</i> , in G. Facchinetti, L. Mordeglia, A. Bettini, S. Morretta, M.G. Ruggiero (eds.), <i>Soprintendenza Per I Beni Archeologici Della Lombardia: Notiziario 2010-2011</i> , EDIZIONI ET, 2013, pp. 120.
S3.I1	“The Spring Fed Pond Located behind ‘Rock 1’ at Naquane in Early October”	Picture of the small pond behind Rock 1 at Naquane taken by Madeline Lamwers in early October 2025
S3.I2	“The page mentioning Cemmo from the 1916 version of <i>Guida d’Italia del Touring Club Italiano per la Lombardia, Piemonte e Canton Ticino</i> ”	L.V. BERTARELLI, <i>Guida d'Italia del Touring Club Italiano: Piemonte, Lombardia Canton Ticino Vol. II</i> , Touring Club Italiano, 1916, pp. 414.
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S3.I4	“Süss’ 1955 map of <i>Parco Nazionale delle Incisioni Rupestri di Naquane</i> ”	E. SÜSS, <i>Per la valorizzazione dei petroglifi camuni</i> , in “CAB 1954”, 1955, pp. 137-155. CAB 1955
S3.I5	“Early Version of Anati’s Typology of engraved figures in Valcamonica by time period published in 1966”	E. ANATI, <i>I metodi di analisi e di archivio dell’arte rupestre</i> , in “Bollettino del Centro Camuno di Studi Preistorici”, 2, 1966, pp. 141.
S3.I6	“Still Frames from a video made about the <i>I Camuni: Alle radici della civiltà Europea</i> Exhibit in Milan Archived on the internet at <i>maràa: archivio della memoria della Valle Camonica</i> ”	<i>I Camuni - Mostra Milano 1982</i> , maràa: archivio della memoria della Valle Camonica. Published 23 August, 2017 https://maraea.it/i-camuni-mostra-milano-1982/ .
S4.I1	“Inauguration of <i>Parco Archeologico Nazionale dei Massi di Cemmo</i> on 6 October 2005”	R. POGGIANI KELLER, C. LIBORIO AND M.G. RUGGIERO (eds.), <i>Arte Rupestre della Valle Camonica: Sito UNESCO n. 94, 2005 Piano di Gestione, Atti del Convegno, Capo di Ponte, 6-8 Ottobre, 2005</i> , Sestanteinc, 2009, pp. 302-3.

S4.I2	“Entrance of <i>Massi di Cemmo</i> ”	Picture of entrance gate of <i>Parco Archeologico Nazionale dei Massi di Cemmo</i> by Madeline Lamwers in April 2026
S4.I3	“Entrance of <i>Seradina-Bedolina</i> ”	Screenshot of Google Earth (map circa 2017)
S4.I4	“The Main Natural Features of <i>Massi di Cemmo</i> the meadow, the boulders and the cliff”	Panoramic picture of <i>Parco Archeologico Nazionale dei Massi di Cemmo</i> by Madeline Lamwers in April 2026
S4.I5	“The Emergency Release Button to open the gates in case of emergency”	Picture of the Emergency Button at the entrance of <i>Massi di Cemmo</i> by Madeline Lamwers in April 2026
S5.I1	“Graphic Explaining the Social Model of Disability using physical accessibility as an example to highlight what inclusion can look like on a societal level.”	<i>Understanding Disability</i> , Youth Engagement Resource Platform. Accessed 22 May, 2026 https://www.yacvic.org.au/yerp/diversity-equity-inclusion/what-is-disability/ .
S5.I2	“Italy’s Next Generation EU Plan created to help improve the lives of Italians post COVID-19 Pandemic.”	Screenshot of plan cover <i>Piano Nazionale di Ripresa e Resilienza (#NextGenerationItalia)</i> , Italia Domani. Accessed 22 May, 2026. https://www.governo.it/sites/governo.it/files/PNRR_3.pdf
S6.I1	“Low Post and Chain Fence this example is called Driveway Chain Link Fencing from Harrod Horticulture”	<i>Driveway Chain Link Fencing</i> , Harrod Horticulture. Accessed 22 May, 2026. https://www.harrodhorticultural.com/driveway-chain-link-fencing-pid9275.html .
S6.I2	“The Stelae Pit Today as seen from the bridge while exiting the sanctuary.”	Picture of the Stelae Pit from the sanctuary of <i>Massi di Cemmo</i> by Madeline Lamwers in April 2026
S6.I3	“Late Bronze Age Wall in need of restoration near the Stelae Pit.”	Picture of the Bronze Age Wall next to the Stelae Pit from the sanctuary of <i>Massi di Cemmo</i> by Madeline Lamwers in April 2026
S6.I4	“Current Iteration of <i>Massi di Cemmo</i> ’s Primary Italian Government Website”	Screenshot of the website <i>Parco Archeologico Nazionale dei Massi di Cemmo</i> , Ministero della Cultura: Direzione Regionale Musei Lombardia. Accessed 26 April, 2026. https://museilombardia.cultura.gov.it/en/museums/parco-archeologico-nazionale-dei-massi-di-cemmo/ .
S6.I5	“Example of a collection of Physical Learning Materials provided by the Maryland Center for History and	Screenshot from the website <i>Traveling Trunks</i> , Maryland Center for History and Culture. Accessed 26 April, 2026.

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Appendices

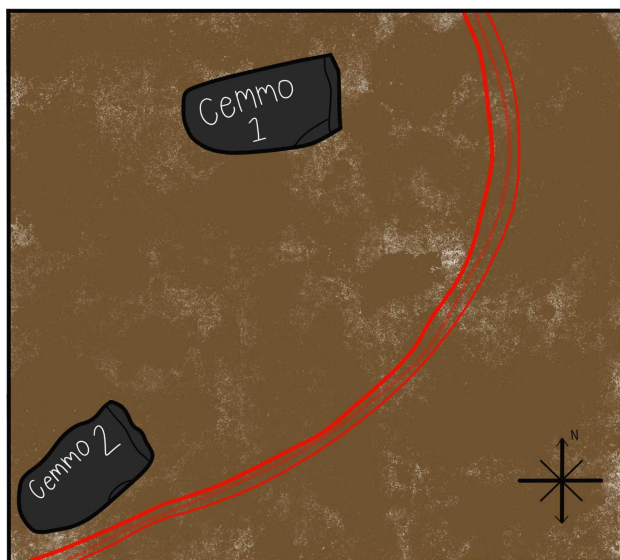


Figure A Early Copper Age Foundation of Site

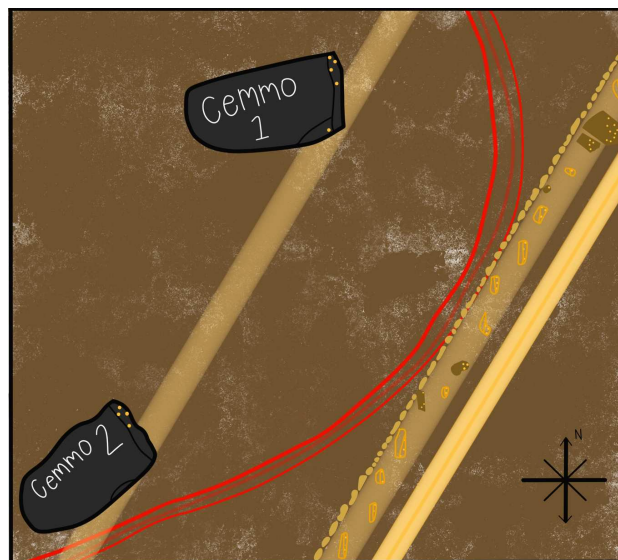


Figure B Copper Age (1) Site

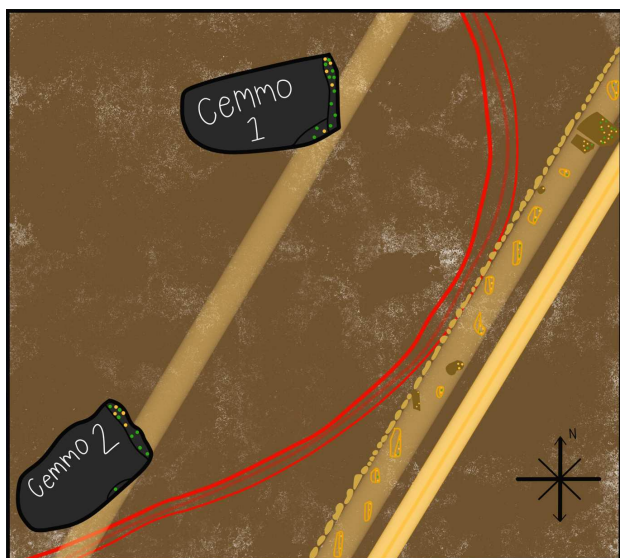


Figure C Copper Age (2) Site

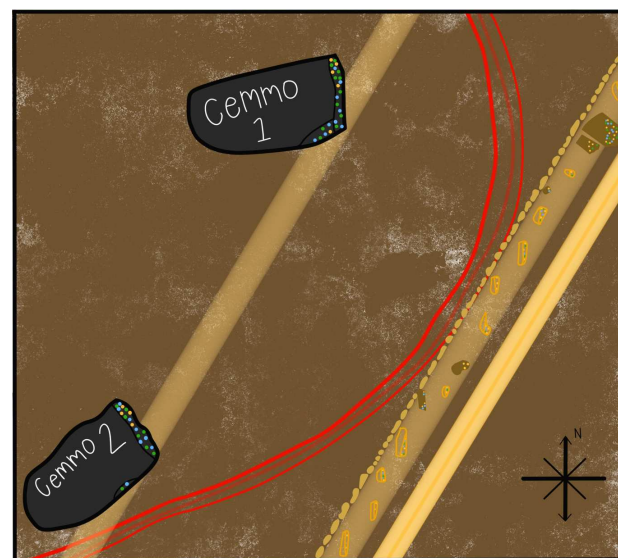


Figure D Copper Age (3) Site

Site Drawing Key:

- | | | | |
|---|--|---|-----------------------------------|
|  | A Potential Path of the Plow
Marks found at <i>Massi di Cemmo</i> |  | Proposed Kerb of Tabular Stones |
|  | Stele found <i>in situ</i> |  | Rock Engravings (Style III A 1) |
|  | Example Stele to Show Idealised Alignment |  | Rock Engravings (Style III A 2) |
|  | Trench/Walkway |  | Rock Engravings (Style III A 2/3) |
|  | Line to delineate engraved rock face (and to show directionality) | | |

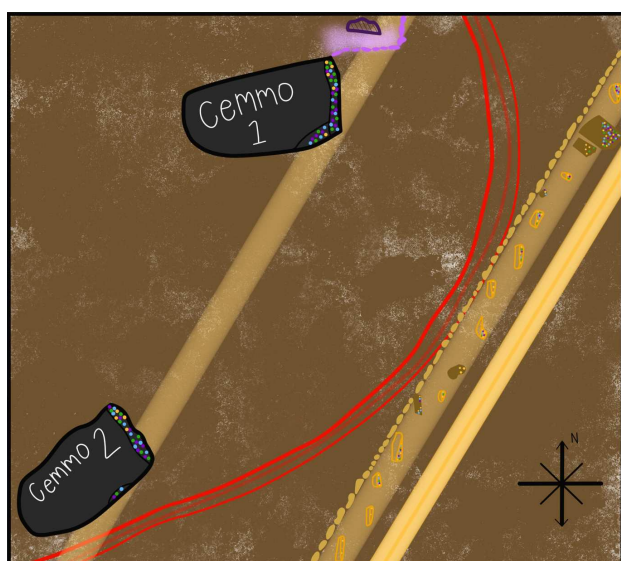


Figure E Copper Age (4) Site



Figure F Middle Bronze Age to Early Iron Age Site

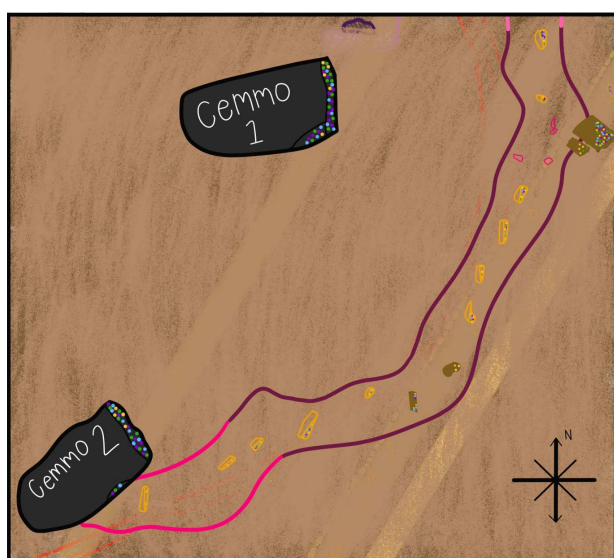


Figure G Late Bronze Age/Early Iron Age Site



Figure H Early Iron Age Site

Site Drawing Key:

 Rock Engravings (Style III A 3)

 Fragment of "Cemmo 20"

 Pebble/Pottery Sherd Flooring

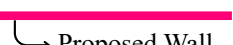
 Medium Stone Boundary

 Accumulation from 700 years of Abandonment

 Late Bronze Age Wall outline
(Traced from Archaeological site Map)

 Small Pieces of/Broken Stele built INTO LBA Wall

 Stelae from the Copper Age still in Use
(Yellow have been moved, Brown are still *in situ*)

 Proposed Wall Continuation
(Beyond Excavation Limit)

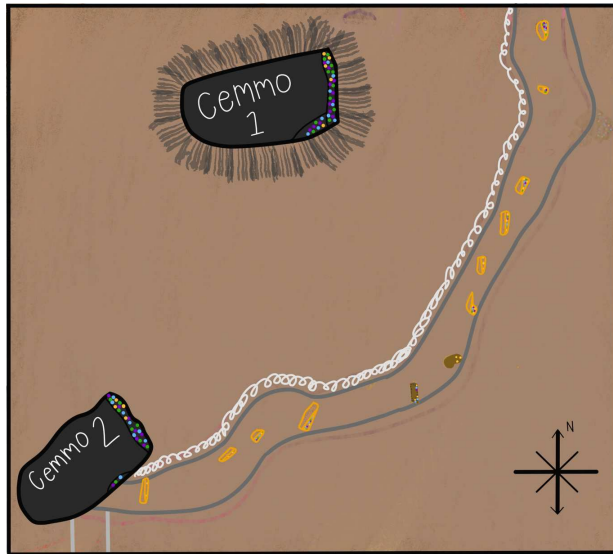


Figure H Iron Age Site

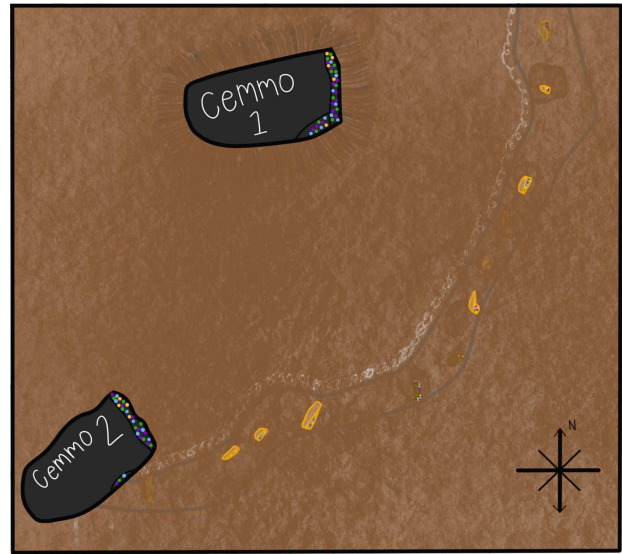


Figure I Late Iron Age/Roman Era Site

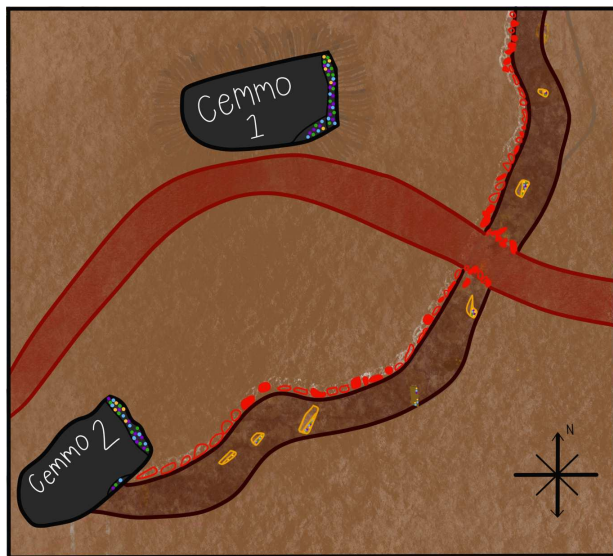


Figure J Roman Era Site

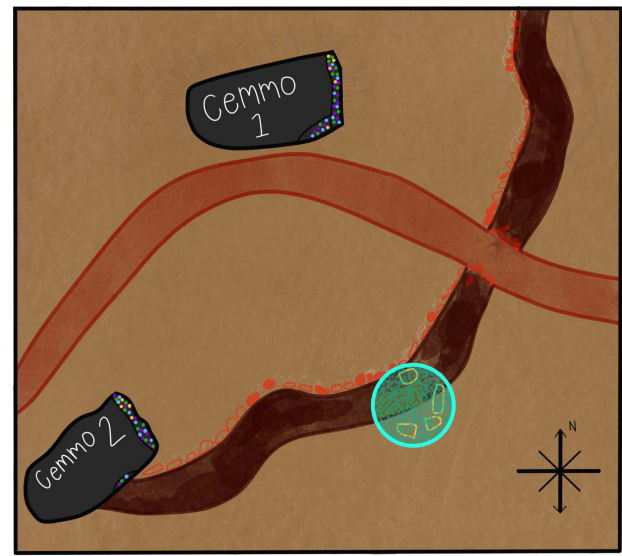


Figure K Late Roman Era Site

Site Drawing Key:

- | | |
|---|---|
| Iron Age Addition to Late Bronze Age Wall | Roman Road |
| New North/South Wall Addition | Medium Sized Stones found <i>in situ</i> |
| Shallow Trench | Proposed Location of Medium Sized Stones |
| Seemingly Cultic Hoe marks | Pit dug in the Late Roman Era to hide Stelae |
| Accumulation from the Iron Age | "Decommissioned" Copper Age Stelae |
| Late Bronze Age Wall Transformed into Roman Era Platform (To Display Copper Age Stelae) | Carefully Placed Pebbles sealing the Stelae Pit |

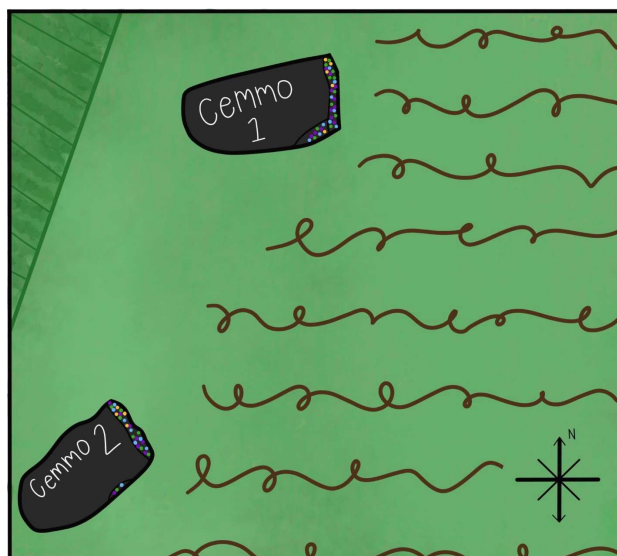


Figure K Early 20th Century Site

Site Drawing Key:



Vineyard surrounding Cemmo Boulders at the 1907 "Discovery"



Hill Building up to the Road behind the Boulders

Important Beginning Note: The drawings being discussed were created using a combination of Canva (Educator's Edition) and ProCreate on an iPad and Mac Book

Chronological Drawing Process

As Extrapolated on Page 16, though the artist is unsure if this process or how it was done will make sense to anyone else.

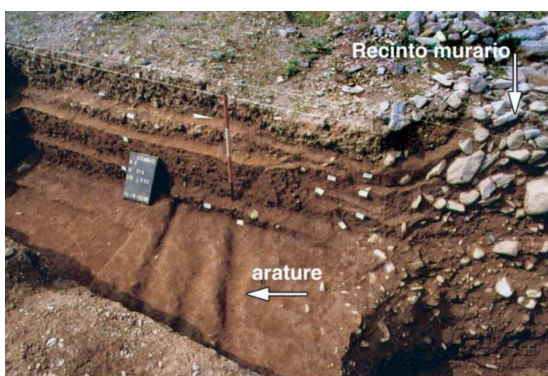
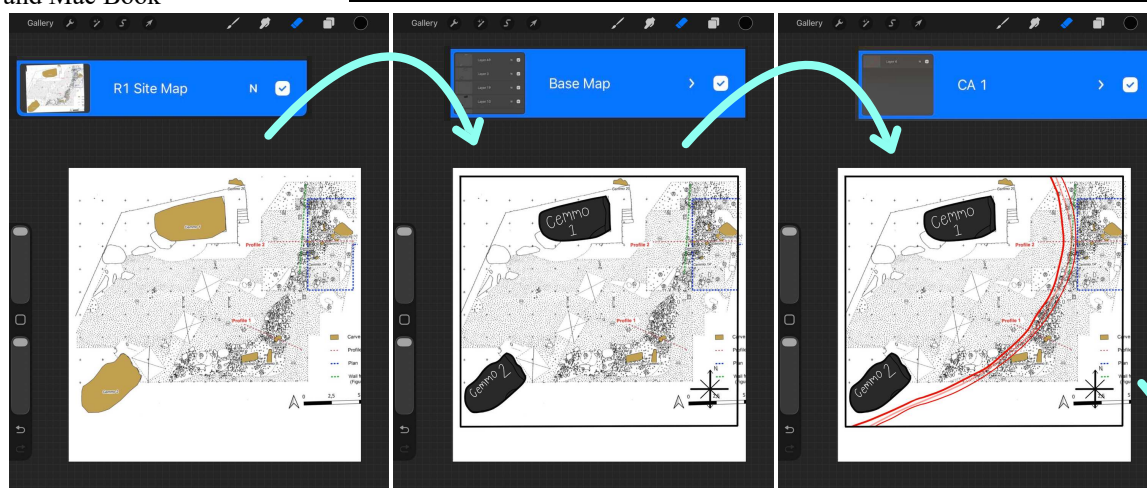
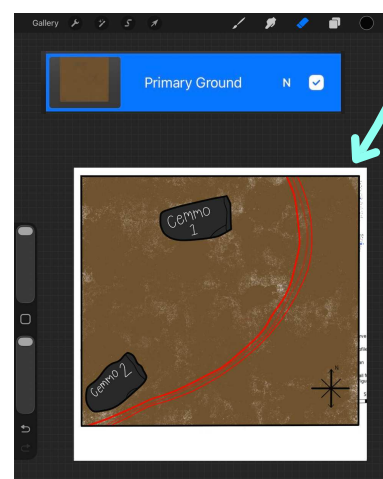


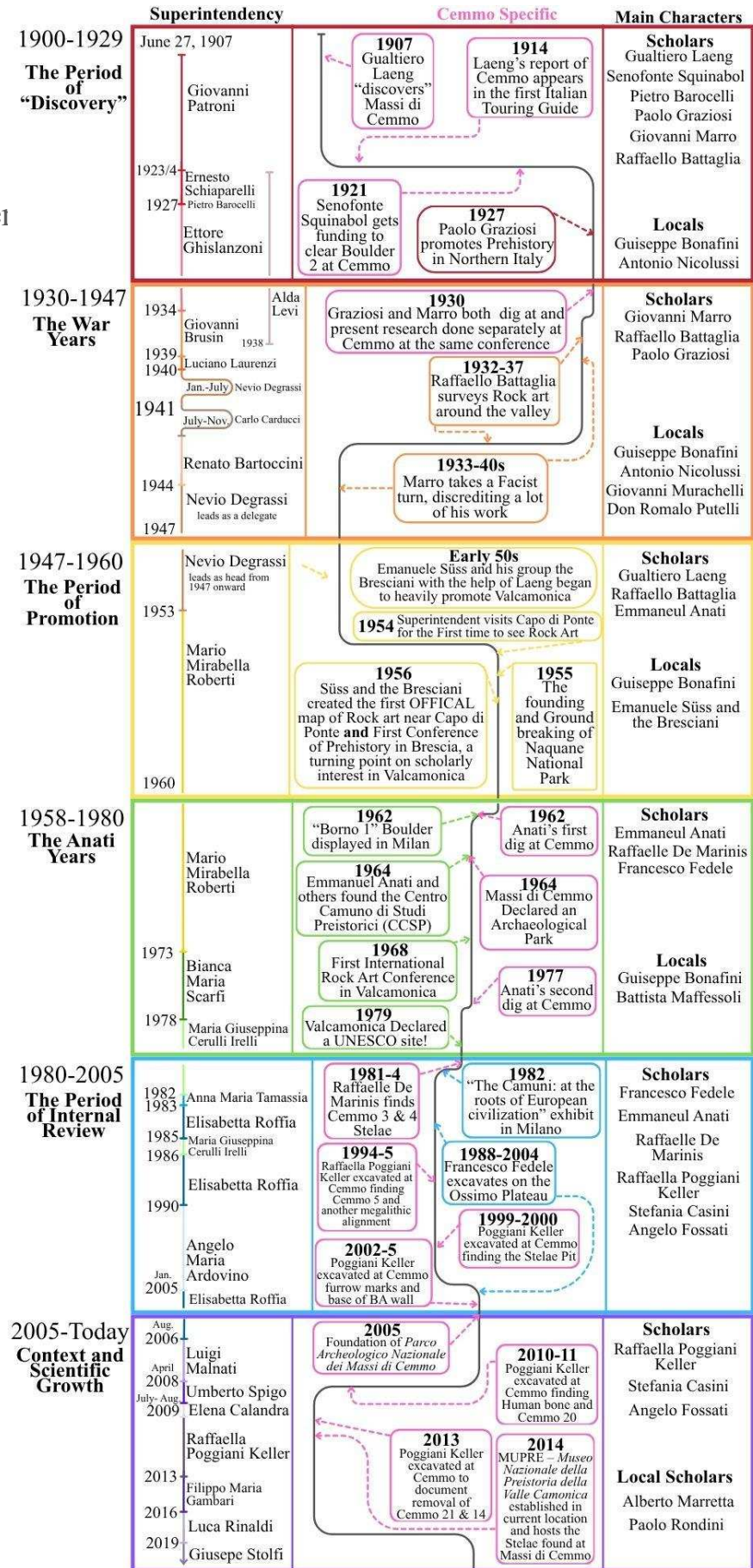
Image from POGGIANI KELLER 2006, 259. that was used to determine how the plow marks may have interacted with one another on a larger scale.

Phases of Drawing as seen through ProCreate layers (which are labelled in Blue), starting with the site map and ending with the foundation level drawing.



Appendix B

This is the complete timeline of the discovery of Cemmo in chronological order that is separated into sections in Section 3. Created by ML using Canva



Appendix C

Below is the original and then translated versions of the questionnaire emailed to National Parks around the world.

Language:	English	Subject:	Valourization of Rock Art
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Hello,

My name is Madeline Lamwers, I am a trained teacher and historian and I am currently working on my Master's thesis at the Universita di Pavia. The aim of my thesis is to make Massi di Cemmo, a rock art site in northern Italy that contains a copper age megalithic sanctuary, more educationally and physically accessible for visitors. As a result of this aim, I thought it prudent to reach out to other locations which preserve and protect rock art to see how they educate the public and get people excited about the context and history behind it. Below, I have included some questions that I am hoping you are willing to answer if you have the time. If you are unable, thank you for your time and I hope you have a lovely day.

Thank you,

Madeline Lamwers

(English is my first language and I used translation software to create this email. If something does not make sense, or you would like to see the original English version of this email, please let me know.)

QUESTIONS:

Pertaining the CONTEXT of the Rock Art site:

1. What forms of rock art exist at your site? What is their physical context?
2. What is the historical context of the rock art at your site?
3. Has the rock art been reliably dated (using scientific, archaeological, stylistic, historical or other means)?
4. Are there still living descendants of the original rock artists? If so, does your site have a good relationship with them?

Pertaining to the Educational Aspect:

1. What type of information is available for visitors about your rock art site on location (physically at the site)?
2. How do you contextualize the importance of your rock art site to the wider public (who may not have a strong background in said context)?
3. Are there ways in which you promote your rock art site educationally (special events, displays at museums/visitor centers, tours, etc.)?
4. What types of information do you consider absolutely critical to have available for visitors, to help them gain a better grasp of the context of your rock art site?

5. How does your site preserve the natural beauty/context of the rock art's location, while still making it accessible to visitors?
6. How does your rock art site address accessibility (physically, informationally, sensorily, etc.) concerns?
 - a. I do understand that for some sites this is unrealistic due to location or other environmental factors, so please skip if your site is one of those
7. How do you get people excited about rock art?

Other General Questions:

1. Am I able to cite your answers in my thesis (this can be with a specific name, or generally as I am amalgamating data from many emails)?
2. Do you have any other recommendations of people or parks that I should reach out to that would be willing to answer questions?
3. Are there any other ideas I should keep in mind while developing my thesis plan?

Language:	European Spanish	Subject:	Puesta en Valor del Arte Rupestre
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Estimado/a:

Mi nombre es **Madeline Lamwers**. Soy profesora e historiadora titulada y actualmente estoy trabajando en mi **tesis de máster en la Università di Pavia**. El objetivo de mi investigación es hacer que **Massi di Cemmo**, un yacimiento de arte rupestre situado en el norte de Italia que alberga un santuario megalítico de la Edad del Cobre, resulte más accesible tanto desde el punto de vista educativo como físico para los visitantes.

Con este propósito, he considerado oportuno ponerme en contacto con otros lugares que conservan y protegen arte rupestre para conocer de qué manera transmiten esta información al público y cómo consiguen despertar el interés por el contexto histórico y cultural que rodea estos sitios. A continuación incluyo algunas preguntas que me gustaría plantearles, por si tuvieran la amabilidad de responderlas si disponen de tiempo. En caso de que no les sea posible, les agradezco igualmente su atención y les deseo un excelente día.

Muchas gracias de antemano.

Atentamente,
Madeline Lamwers

(Como hablante nativa de Inglés, he utilizado un programa de traducción para el texto original de este correo electrónico. Por favor, indíquenme si desean recibir la versión original en Inglés.)

PREGUNTAS

Sobre el CONTEXTO del yacimiento de arte rupestre:

1. ¿Qué tipos de arte rupestre se encuentran en su yacimiento? ¿Cuál es su contexto físico?

2. ¿Cuál es el contexto histórico del arte rupestre presente en su yacimiento?
3. ¿Ha sido datado el arte rupestre de forma fiable (mediante métodos científicos, arqueológicos, estilísticos, históricos u otros)?
4. ¿Existen actualmente descendientes vivos de los autores originales del arte rupestre?
En caso afirmativo, ¿mantiene su institución una relación con ellos?

Sobre el aspecto educativo:

1. ¿Qué tipo de información está disponible para los visitantes sobre su yacimiento de arte rupestre en el propio lugar (es decir, físicamente en el yacimiento)?
2. ¿De qué manera contextualizan la importancia de su yacimiento de arte rupestre para el público general (que puede no tener una formación previa en este ámbito)?
3. ¿Existen iniciativas para promover el conocimiento del yacimiento desde una perspectiva educativa (eventos especiales, exposiciones en museos o centros de visitantes, visitas guiadas, etc.)?
4. ¿Qué tipo de información consideran absolutamente imprescindible que esté disponible para los visitantes con el fin de ayudarles a comprender mejor el contexto del yacimiento?
5. ¿Cómo se preserva la belleza natural y el contexto del entorno del arte rupestre, al tiempo que se facilita el acceso a los visitantes?
6. ¿Cómo aborda su yacimiento las cuestiones relacionadas con la accesibilidad (física, informativa, sensorial, etc.)?
 - a. Entiendo que en algunos casos esto puede resultar inviable debido a la ubicación u otros factores ambientales, por lo que pueden omitir esta pregunta si fuera el caso.
7. ¿Qué estrategias utilizan para despertar el interés del público por el arte rupestre?

Otras preguntas generales:

1. ¿Puedo citar sus respuestas en mi tesis (ya sea mencionando un nombre concreto o de forma general, dado que estoy recopilando información procedente de numerosos correos electrónicos)?
2. ¿Podrían recomendarme otras personas o parques con los que sería conveniente ponerme en contacto y que podrían estar dispuestos a responder a estas preguntas?
3. ¿Hay algún otro aspecto o recomendación que debería tener en cuenta durante el desarrollo de mi tesis?

Language:	Azerbaijani	Subject:	Qayaüstü incəsənət irsinin tanınması və dəyərləndirilməsi
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Hörmətli cənab/xanım,

Mənim adım **Madeline Lamwers**-dir. Mən ixtisaslı müəllim və tarixçiyəm və hazırda **Pavia Universitetində magistr dissertasiyam üzərində çalışıram**. Dissertasiyamın məqsədi İtaliyanın şimalında yerləşən və Mis Dövrünə aid meqalitik ziyarətgahı ehtiva edən **Massi di Cemmo** qayaüstü incəsənət məkanını ziyarətçilər üçün həm təhsil baxımından, həm də fiziki baxımdan daha əlçatan etməkdir.

Bu məqsədlə qayaüstü incəsənəti qoruyan və mühafizə edən digər məkanlarla əlaqə saxlamağın faydalı olacağını düşündüm ki, onların ictimaiyyəti necə məlumatlandırdıqlarını və insanların bu abidələrin arxasında duran tarix və kontekstə necə maraq göstərməsini təmin etdiklərini öyrənirəm. Aşağıda vaxtınız olduğu təqdirdə cavablandırmağınızı ümid etdiyim bəzi suallar təqdim etmişəm. Cavab vermək mümkün olmasa belə, vaxt ayırdığınız üçün təşəkkür edir və sizə xoş gün arzulayıram.

Təşəkkür edirəm,
Madeline Lamwers

(Ana dili İngilis dili olan bir şəxs kimi, bu e-poçtun orijinal mətnini tərcümə etmək üçün tərcümə proqramından istifadə etdim. Əgər orijinal İngilis dilində olan versiyanı istəsəniz, zəhmət olmasa mənə bildirin.)

SUALLAR

Qayaüstü incəsənət məkanının KONTEKSTİ ilə bağlı:

1. Sizin məkanınızda qayaüstü incəsənətin hansı formaları mövcuddur? Onların fiziki konteksti nədir?
2. Məkanınızdakı qayaüstü incəsənətin tarixi konteksti nədir?
3. Qayaüstü incəsənət etibarlı şəkildə tarixləndirilibmi (elmi, arxeoloji, üslubi, tarixi və ya digər üsullarla)?
4. Qayaüstü incəsənətin ilkin yaradıcılarının bu gün yaşayan nəsilləri varmı? Əgər varsa, məkanınızın onlarla yaxşı əlaqəsi varmı?

Təhsil aspekti ilə bağlı:

1. Ziyarətçilər üçün qayaüstü incəsənət məkanınız haqqında yerində (yəni məkanın özündə) hansı məlumatlar təqdim olunur?
2. Qayaüstü incəsənət məkanınızın əhəmiyyətini daha geniş ictimaiyyətə (bu sahədə dərin biliyi olmayan insanlara) necə izah edir və kontekstləşdirirsiniz?
3. Qayaüstü incəsənət məkanını təhsil məqsədilə təşviq etmək üçün hansı üsullardan istifadə edirsiniz (xüsusi tədbirlər, muzey və ya ziyarətçi mərkəzlərində sərgilər, ekskursiyalar və s.)?
4. Ziyarətçilərin qayaüstü incəsənət məkanının kontekstini daha yaxşı anlaması üçün hansı məlumatların mütləq təqdim olunmasını vacib hesab edirsiniz?
5. Məkanınız qayaüstü incəsənətin yerləşdiyi yerin təbii gözəlliyini və kontekstini qoruyaraq eyni zamanda ziyarətçilər üçün necə əlçatan edir?
6. Qayaüstü incəsənət məkanınız əlçatanlıqla bağlı məsələləri (fiziki, informasiya, sensor və s.) necə həll edir?

- a. Bæzi məkanlarda yerləşmə və ya digər ekoloji amillərə görə bunun mümkün olmadığını anlayıram, buna görə də məkanınız belədirsə, bu sualı keçə bilərsiniz.

7. İnsanlarda qayaüstü incəsənətə maraq yaratmaq üçün nə edirsiniz?

Digər ümumi suallar:

1. Cavablarınızı dissertasiyamda sitat gətirmək üçün istifadə edə bilərsiniz (bu, konkret adla və ya ümumi şəkildə ola bilər, çünki mən bir çox e-poçtdan əldə olunan məlumatları birləşdirirəm)?
2. Sualları cavablandırmağa hazır ola biləcək başqa şəxsləri və ya parkları tövsiyə edə bilərsinizmi?
3. Dissertasiya planımı hazırlayarkən nəzərə almalı olduğum başqa ideyalar varmı?

Language:	Swedish	Subject:	Synliggörande och förmedling av hållristningar
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Hej,

Mitt namn är **Madeline Lamwers**. Jag är utbildad lärare och historiker och arbetar för närvarande med min **masteruppsats vid Università di Pavia**. Syftet med min uppsats är att göra **Massi di Cemmo**, en hållristningsplats i norra Italien som innehåller en megalitisk helgedom från kopparåldern, mer pedagogiskt och fysiskt tillgänglig för besökare.

Som en del av detta arbete kontaktar jag olika platser som bevarar och skyddar hållristningar för att få en bättre förståelse för hur de förmedlar kunskap till allmänheten och hur de väcker intresse för den historiska och kulturella kontexten kring dessa platser. Nedan har jag samlat några frågor som jag skulle vara mycket tacksam om ni har möjlighet att besvara. Om det inte är möjligt tackar jag ändå för er tid och uppmärksamhet.

Stort tack på förhand.

Med vänliga hälsningar,

Madeline Lamwers

(Som engelska är mitt modersmål har jag använt ett översättningsprogram för originaltexten i detta mejl. Vänligen meddela mig om ni skulle vilja ta del av den ursprungliga engelska versionen.)

FRÅGOR

Om KONTEXTEN kring hållristningsplatsen:

1. Vilka typer av hållristningar finns på er plats? Vad är deras fysiska kontext?
2. Vad är den historiska kontexten för hållristningarna på er plats?

3. Har hällristningarna daterats på ett tillförlitligt sätt (genom vetenskapliga, arkeologiska, stilistiske, historiske eller andre metoder)?
4. Finns det fortfarande levande ättlingar till de ursprunglige skaparna av hällristningarna? Om så er fallet, har er organisation en relation till dem?

Om den pedagogiske aspekten:

1. Vilken typ av information finns tilgjengelig for besøkere om er hällristningsplats på platsen (det vill säga fysisk ved platsen)?
2. Hur förklarar och sätter ni in betydelsen av er hällristningsplats i ett sammanhang för en bredare allmänhet (som kanske inte har någon större förkunskap om ämnet)?
3. Finns det sätt på vilka ni arbetar pedagogisk för att lyfta fram er hällristningsplats (till exempel särskilda evenemang, utställningar på museer eller besökscenter, guidade turer etc.)?
4. Vilken typ av information anser ni vara absolut nødvendig att göra tilgjengelig for besøkere for å hjelpe dem att bättre forstå konteksten kring er hällristningsplats?
5. Hur bevarar ni den naturlige miljøen og konteksten kring hällristningarnas plats samtidigt som den görs tilgjengelig for besøkere?
6. Hur arbetar er plats med frågor kring tilgjengelighet (fysisk, informationsmessig, sensorisk etc.)?
 - a. Jag förstår att detta kan vara svært eller urealistisk for visse plasser på grunn av läge eller andre miljøfaktorer, så ni kan gjerne hoppe over denna spørsmål om det gjelder er plats.
7. Hur arbetar ni for å vekke menneskers interesse for hällristninger?

Övriga frågor:

1. Får jag citera era svar i min uppsats (antingen med ett specifikt navn eller mer allment, eftersom jag sammanställer informasjon från mange e-postmeddelanden)?
2. Har ni några rekommendationer på andre personer eller parker som jag skulle kunne kontakta og som eventuelt skulle være villige att svare på spørsmål?
3. Finns det några andre idéer eller aspekter som ni tycker att jag bør ha i åtanke når jag utvikler min uppsatsplan?

Language:	Norwegian	Subject:	Formidling av helleristninger
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Hei,

Mitt navn er **Madeline Lamwers**. Jeg er utdannet lærer og historiker, og arbeider for tiden med min **masteroppgave ved Università di Pavia**. Formålet med oppgaven min er å gjøre **Massi di Cemmo**, et helleristningsområde i Nord-Italia som inneholder en megalittisk helligdom fra kobberalderen, mer tilgjengelig for besøkende både pedagogisk og fysisk.

Som en del av dette arbeidet har jeg tatt kontakt med andre steder som bevarer og beskytter helleristninger for å få bedre innsikt i hvordan de formidler kunnskap til publikum og hvordan de skaper interesse for den historiske og kulturelle konteksten bak disse stedene. Nedenfor har jeg inkludert noen spørsmål som jeg håper dere har anledning til å besvare dersom dere har tid. Dersom det ikke er mulig, takker jeg likevel for deres tid og ønsker dere en fortsatt fin dag.

Tusen takk på forhånd.

Med vennlig hilsen,
Madeline Lamwers

(Siden engelsk er mitt morsmål, har jeg brukt et oversettelsesprogram for originalteksten i denne e-posten. Gi meg gjerne beskjed dersom dere ønsker å motta den opprinnelige engelske versjonen.)

SPØRSMÅL

Om KONTEKSTEN til helleristningsstedet:

1. Hvilke former for helleristninger finnes på deres sted? Hva er deres fysiske kontekst?
2. Hva er den historiske konteksten for helleristningene på deres sted?
3. Har helleristningene blitt pålitelig datert (ved bruk av vitenskapelige, arkeologiske, stilistiske, historiske eller andre metoder)?
4. Finnes det fortsatt levende etterkommere av de opprinnelige skaperne av helleristningene? Dersom ja, har deres institusjon et godt forhold til dem?

Om den pedagogiske dimensjonen:

1. Hvilken type informasjon er tilgjengelig for besøkende om helleristningsstedet på selve stedet (altså fysisk på lokaliteten)?
2. Hvordan formidler dere betydningen av deres helleristningssted til et bredere publikum (som kanskje ikke har inngående kunnskap om denne konteksten)?
3. Finnes det måter dere arbeider med å fremme stedet pedagogisk på (for eksempel spesielle arrangementer, utstillinger ved museer eller besøkssentre, omvisninger osv.)?
4. Hvilken type informasjon anser dere som helt avgjørende å gjøre tilgjengelig for besøkende for å hjelpe dem til å få en bedre forståelse av konteksten rundt helleristningsstedet?
5. Hvordan bevarer deres sted den naturlige skjønnheten og konteksten rundt helleristningenes beliggenhet, samtidig som området gjøres tilgjengelig for besøkende?
6. Hvordan håndterer deres helleristningssted spørsmål knyttet til tilgjengelighet (fysisk, informasjonsmessig, sensorisk osv.)?
 - a. Jeg forstår at dette for noen steder kan være urealistisk på grunn av beliggenhet eller andre miljømessige forhold, så dere kan gjerne hoppe over dette spørsmålet dersom det gjelder deres sted.
7. Hvordan arbeider dere for å vekke interesse for helleristninger hos publikum?

Andre generelle spørsmål:

1. Har jeg anledning til å sitere svarene deres i masteroppgaven min (enten med et spesifikt navn eller mer generelt, ettersom jeg sammenstiller data fra mange e-poster)?
2. Har dere anbefalinger til andre personer eller parker jeg bør kontakte som kunne være villige til å besvare spørsmål?
3. Finnes det andre ideer eller aspekter dere mener jeg bør ha i tankene når jeg utvikler planen for masteroppgaven min?

Language:	Finnish	Subject:	Kalliotaitteen Esittäminen ja Tulkinta
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Hyvä vastaanottaja,

Nimeni on **Madeline Lamwers**. Olen koulutukseltani opettaja ja historioitsija, ja työskentelen parhaillaan **maisterintutkielmani parissa Pavia-yliopistossa (Università di Pavia)**. Tutkielmani tavoitteena on tehdä **Massi di Cemmosta**, Pohjois-Italiassa sijaitsevasta kalliotaidekohteesta, joka sisältää kuparikaudelle ajoittuvan megalittisen pyhäkön, paremmin saavutettava sekä opetuksellisesta että fyysisestä näkökulmasta vierailijoille.

Tämän tavoitteen puitteissa olen ottanut yhteyttä muihin kalliotaidetta säilyttäviin ja suojeleviin kohteisiin saadakseni paremman käsityksen siitä, miten ne tiedottavat yleisölle ja kuinka ne herättävät kiinnostusta kohteiden historialliseen ja kulttuuriseen kontekstiin. Alla olen esittänyt muutamia kysymyksiä, joihin toivon teillä olevan mahdollisuus vastata, mikäli aikaa on. Mikäli vastaaminen ei ole mahdollista, kiitän silti ajastanne ja toivotan teille oikein hyvää päivänjatkoa.

Lämpimät kiitokseni jo etukäteen.

Ystävällisin terveisin,
Madeline Lamwers

(Koska englanti on äidinkieleni, olen käyttänyt käännösohjelmaa tämän sähköpostin alkuperäisen tekstin kääntämiseen. Ilmoittaisittehan ystävällisesti, jos haluaisitte saada alkuperäisen englanninkielisen version.)

KYSYMYKSETKalliotaidekohteen KONTEKSTIIN liittyen:

1. Millaisia kalliotaitteen muotoja kohteessanne esiintyy? Mikä on niiden fyysinen konteksti?
2. Mikä on kohteessanne esiintyvän kalliotaitteen historiallinen konteksti?
3. Onko kalliotaide ajoitettu luotettavasti (tieteellisin, arkeologisin, tyyllisin, historiallinen tai muin menetelmin)?

4. Onko alkuperäisten kalliotaiteen tekijöiden jälkeläisiä edelleen elossa? Jos on, onko kohteellanne tai organisaatiollanne yhteys heihin?

Opetukselliseen näkökulmaan liittyen:

1. Minkälaista tietoa kalliotaidekohteestanne on saatavilla vierailijoille paikan päällä (eli fyysisesti kohteessa)?
2. Miten esitätte kalliotaidekohteenne merkityksen laajemmalle yleisölle (jolla ei välttämättä ole syvällistä taustatietoa aiheesta)?
3. Onko olemassa tapoja, joilla edistätte kalliotaidekohteen tunnettuutta opetuksellisesta näkökulmasta (esimerkiksi erityistapahtumat, näyttelyt museoissa tai vierailukeskuksissa, opastetut kierrokset jne.)?
4. Minkälaista tietoa pidätte ehdottoman olennaisena tarjota vierailijoille, jotta he voisivat paremmin ymmärtää kalliotaidekohteen kontekstin?
5. Miten kohteessanne säilytetään kalliotaiteen sijaintipaikan luonnollinen kauneus ja ympäristöllinen konteksti samalla kun alue tehdään vierailijoille saavutettavaksi?
6. Miten kalliotaidekohteessanne käsitellään saavutettavuuteen liittyviä kysymyksiä (fyysinen saavutettavuus, tiedollinen saavutettavuus, aistillinen saavutettavuus jne.)?
 - a. Ymmärrän, että joissakin kohteissa tämä ei ole mahdollista sijainnin tai muiden ympäristötekijöiden vuoksi, joten voitte halutessanne ohittaa tämän kysymyksen.
7. Miten herättätte ihmisten kiinnostuksen kalliotaidekohtaan?

Muut yleiset kysymykset:

1. Voinko viitata vastauksiinne maisterintutkielmassani (joko nimellä tai yleisemmällä tasolla, koska kokoan aineistoa useista sähköposteista)?
2. Voitteko suositella muita henkilöitä tai puistoja/kohteita, joihin minun kannattaisi ottaa yhteyttä ja jotka saattaisivat olla halukkaita vastaamaan kysymyksiini?
3. Onko muita näkökulmia tai ajatuksia, jotka minun tulisi ottaa huomioon kehittäessäni tutkielmasuunnitelmaani?

Language:	Indonesian	Subject:	Valorisasi Seni Cadas
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Halo,

Nama saya **Madeline Lamwers**. Saya adalah seorang guru dan sejarawan terlatih, dan saat ini sedang mengerjakan tesis Magister saya di **Università di Pavia**. Tujuan dari tesis saya adalah untuk menjadikan **Massi di Cemmo**, sebuah situs seni cadas di Italia utara yang mengandung tempat suci megalitik dari Zaman Tembaga, lebih mudah diakses baik secara edukatif maupun secara fisik bagi para pengunjung.

Sehubungan dengan tujuan tersebut, saya merasa perlu untuk menghubungi berbagai lokasi lain yang melestarikan dan melindungi seni cadas, guna mengetahui bagaimana mereka mendukung masyarakat serta menumbuhkan minat publik terhadap konteks dan sejarah di baliknya.

Di bawah ini saya sertakan beberapa pertanyaan yang saya harap Anda bersedia menjawab apabila memiliki waktu. Apabila Anda tidak dapat menjawabnya, saya tetap mengucapkan terima kasih atas waktu Anda dan semoga Anda memiliki hari yang menyenangkan.

Terima kasih,

Madeline Lamwers

(Bahasa Inggris adalah bahasa pertama saya, dan saya menggunakan perangkat lunak penerjemahan untuk menyusun email ini. Apabila terdapat bagian yang kurang jelas, atau apabila Anda ingin melihat versi asli dalam bahasa Inggris, mohon beri tahu saya.)

PERTANYAAN

Terkait KONTEKS Situs Seni Cadas

1. Bentuk seni cadas apa saja yang terdapat di situs Anda? Bagaimana konteks fisiknya?
2. Bagaimana konteks historis dari seni cadas yang terdapat di situs Anda?
3. Apakah seni cadas tersebut telah berhasil diberi penanggalan yang dapat diandalkan (melalui metode ilmiah, arkeologis, stilistika, historis, atau metode lainnya)?
4. Apakah masih terdapat keturunan yang hidup dari para pembuat seni cadas tersebut? Jika ya, apakah situs Anda memiliki hubungan yang baik dengan mereka?

Terkait Aspek Edukasi

1. Jenis informasi apa saja yang tersedia bagi pengunjung mengenai situs seni cadas Anda di lokasi (secara langsung di situs)?
2. Bagaimana Anda mengkontekstualisasikan pentingnya situs seni cadas Anda kepada masyarakat luas (yang mungkin tidak memiliki latar belakang pengetahuan yang kuat mengenai konteks tersebut)?
3. Apakah terdapat cara-cara tertentu untuk mempromosikan situs seni cadas Anda secara edukatif (misalnya melalui acara khusus, pameran di museum atau pusat pengunjung, tur, dan sebagainya)?
4. Jenis informasi apa yang menurut Anda sangat penting untuk tersedia bagi pengunjung agar mereka dapat memahami konteks situs seni cadas Anda dengan lebih baik?
5. Bagaimana situs Anda menjaga keindahan alam dan konteks lokasi seni cadas tersebut, sekaligus tetap menjadikannya dapat diakses oleh para pengunjung?
6. Bagaimana situs seni cadas Anda menangani isu aksesibilitas (baik secara fisik, informasi, sensorik, dan sebagainya)?
 - a. Saya memahami bahwa untuk beberapa situs hal ini mungkin tidak realistis karena lokasi atau faktor lingkungan lainnya; oleh karena itu, silakan melewati pertanyaan ini apabila hal tersebut berlaku bagi situs Anda.

7. Bagaimana Anda menumbuhkan ketertarikan masyarakat terhadap seni cadas?

Pertanyaan Umum Lainnya

1. Apakah saya diperbolehkan mengutip jawaban Anda dalam tesis saya (baik dengan mencantumkan nama secara spesifik, maupun secara umum karena saya akan menggabungkan data dari banyak email)?
2. Apakah Anda memiliki rekomendasi mengenai individu atau taman/situs lain yang sebaiknya saya hubungi dan yang mungkin bersedia menjawab pertanyaan-pertanyaan ini?
3. Apakah ada gagasan atau hal lain yang sebaiknya saya pertimbangkan dalam mengembangkan rencana tesis saya?

Language:	Quebec French	Subject:	Mise en valeur de l'art rupestre
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Bonjour,

Je m'appelle Madeline Lamwers. Je suis enseignante de formation ainsi qu'historienne, et je travaille présentement à mon mémoire de maîtrise à l'[Université di Pavia](#). L'objectif de mon mémoire est de rendre le site d'art rupestre de [Massi di Cemmo](#), dans le nord de l'Italie — qui comprend un sanctuaire mégalithique datant de l'âge du cuivre — plus accessible, tant sur le plan éducatif que physique, pour les visiteurs. Dans cette optique, j'ai jugé pertinent de communiquer avec d'autres sites qui préservent et protègent l'art rupestre afin de mieux comprendre comment ils sensibilisent le public et suscitent l'intérêt pour le contexte et l'histoire qui s'y rattachent. Vous trouverez ci-dessous quelques questions auxquelles j'espère que vous pourrez répondre si vous en avez le temps. Dans le cas contraire, je vous remercie tout de même pour votre attention et vous souhaite une excellente journée.

Merci,

Madeline Lamwers

(L'anglais est ma langue maternelle et j'ai utilisé un logiciel de traduction pour rédiger ce courriel. Si certains passages ne sont pas clairs, ou si vous souhaitez consulter la version originale en anglais, n'hésitez pas à me le faire savoir.)

QUESTIONS :

Concernant le CONTEXTE du site d'art rupestre :

1. Quels types d'art rupestre sont présents sur votre site? Quel est leur contexte physique?
2. Quel est le contexte historique de l'art rupestre sur votre site?
3. L'art rupestre a-t-il été daté de façon fiable (à l'aide de méthodes scientifiques, archéologiques, stylistiques, historiques ou autres)?
4. Y a-t-il encore des descendants vivants des artistes originaux? Si oui, votre site entretient-il de bonnes relations avec eux?

Concernant l'aspect ÉDUCATIF :

1. Quel type d'information est offert aux visiteurs sur place (physiquement au site) à propos de votre site d'art rupestre?
2. Comment mettez-vous en contexte l'importance de votre site d'art rupestre auprès du grand public (qui n'a pas nécessairement de connaissances approfondies du sujet)?
3. Existe-t-il des moyens par lesquels vous faites la promotion éducative de votre site (événements spéciaux, expositions dans des musées ou centres d'interprétation, visites guidées, etc.)?
4. Quels types d'information jugez-vous absolument essentiels à fournir aux visiteurs afin de les aider à mieux comprendre le contexte de votre site d'art rupestre?
5. Comment votre site parvient-il à préserver la beauté naturelle et le contexte du lieu tout en le rendant accessible aux visiteurs?
6. Comment votre site d'art rupestre prend-il en compte les enjeux d'accessibilité (physique, informationnelle, sensorielle, etc.)?
 - a. Je comprends que, pour certains sites, cela peut être irréaliste en raison de leur emplacement ou de facteurs environnementaux; dans ce cas, n'hésitez pas à passer cette question.
7. Comment suscitez-vous l'enthousiasme du public pour l'art rupestre?

Autres questions générales :

1. Puis-je citer vos réponses dans mon mémoire (soit en mentionnant un nom précis, soit de manière générale puisque je compile des données provenant de plusieurs courriels)?
2. Avez-vous des recommandations de personnes ou de sites/parcs que je pourrais contacter et qui seraient susceptibles de répondre à ces questions?
3. Y a-t-il d'autres éléments ou idées que je devrais garder en tête lors de l'élaboration de mon mémoire?

Language:	European Portuguese	Subject:	Valorização e Salvaguarda da Arte Rupestre
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Exmo.(a) Senhor(a),

O meu nome é Madeline Lamwers, sendo professora e historiadora de formação. Encontro-me atualmente a desenvolver a minha dissertação de mestrado na Università di Pavia, centrada na valorização, acessibilidade e interpretação do património de arte rupestre.

O trabalho em curso tem como objeto de estudo o sítio de Massi di Cemmo, localizado no norte de Itália, o qual integra um santuário megalítico datado da Idade do Cobre. O principal objetivo da investigação consiste em propor estratégias que promovam uma maior acessibilidade — tanto no plano físico como no plano educativo — a este tipo de património,

assegurando simultaneamente a sua preservação e integridade.

Neste contexto, venho, por este meio, solicitar a vossa colaboração institucional, no sentido de recolher informação comparativa junto de entidades responsáveis pela gestão, preservação e valorização de sítios de arte rupestre. Pretende-se, em particular, compreender as abordagens adotadas no que respeita à mediação cultural, à educação patrimonial e ao envolvimento do público.

Assim, apresento seguidamente um conjunto de questões, às quais ficaria muito reconhecida se pudessem responder, na medida da vossa disponibilidade. Caso não seja possível, agradeço, desde já, a atenção dispensada.

Com os melhores cumprimentos,
Madeline Lamwers

(O inglês é a minha língua materna e recorri a ferramentas de tradução para a redação deste contacto. Caso alguma formulação não seja clara, ou se preferirem receber a versão original em inglês, terei todo o gosto em disponibilizá-la.)

QUESTÕES

I. Contextualização do Sítio de Arte Rupestre

1. Quais as tipologias de arte rupestre presentes no vosso sítio e qual o respetivo enquadramento físico e paisagístico?
2. Qual o contexto histórico e cultural associado às manifestações de arte rupestre no vosso sítio?
3. As representações rupestres foram objeto de datação fiável (por via de metodologias científicas, arqueológicas, estilísticas, históricas ou outras)?
4. Existem comunidades contemporâneas consideradas descendentes dos autores originais? Em caso afirmativo, de que forma se estabelece a relação institucional com essas comunidades?

II. Mediação, Educação e Valorização Patrimonial

1. Que tipologias de informação interpretativa se encontram disponíveis para os visitantes no próprio local?
2. De que forma é comunicada a relevância patrimonial do sítio junto de públicos não especializados?
3. São desenvolvidas iniciativas de valorização educativa (tais como exposições, programas em centros de interpretação, visitas guiadas, ou outros eventos)?
4. Que conteúdos informativos consideram essenciais para uma adequada compreensão do contexto do sítio por parte do público?
5. De que modo é assegurado o equilíbrio entre a preservação da integridade paisagística e patrimonial e a acessibilidade ao público?
6. Que medidas são adotadas para garantir a acessibilidade (física, cognitiva, sensorial e informativa) ao sítio?
 - a. Reconhece-se que, em determinados contextos, tais medidas podem ser limitadas por condicionantes ambientais ou geográficas; nesse caso, esta questão poderá ser desconsiderada.
7. Que estratégias são utilizadas para promover o interesse e o envolvimento do público?

com a arte rupestre?

III. Questões Complementares

1. Autorizam a utilização e citação das vossas respostas no âmbito da presente dissertação (com identificação institucional específica ou de forma anonimizada)?
2. Poderiam indicar outras instituições, especialistas ou sítios que recomendariam para efeitos de recolha de informação comparativa?
3. Existem recomendações adicionais que considerem pertinentes para o desenvolvimento de um plano de valorização e acessibilidade de sítios de arte rupestre?

Appendix D:

Rock Art Site Contact Information¹

Name of Site	Location ²	Why Chosen	Contact Info.	C ³ ?	R ⁴ ?	R2 ⁵ ?	TYN ⁶ ?
Twyfelfontein*	Namibia	Diverse forms and locations of rock art (engravings and paintings), used as a community gathering place with spiritual power for thousands of years	Visited this site in 2023	N/A ⁷	N/A	N/A	N/A
Dorawaka Athubendi Lena Cave	Sri Lanka	Mesolithic engravings in a rock shelter	warakapolaps@gmail.com Website: (https://warakapolaps.lk/english/places_view.php?folder=Dorawaka%20Cave)	Y ⁸	N	N	N
The Korean Government	South Korea	Various rock art sites around S. Korea as each site doesn't have an email	english@knto.or.kr	Y	N	N	N

¹ Sites with * are sites I got answers to at least some of my Questions from (this includes sites I have visited in the past)
² Locations have a colour code by Continent: Africa, Asia, Europe, North America, Oceania, and South America & the Caribbean
³ C stands for Contacted, as in Did I reach out to contact the site in some way?
⁴ R stands for Reply, as in Did I receive a reply?
⁵ R2 stands for Second Reply, as in Did I receive a secondary reply (from the same person or from someone they contacted)?
⁶ TYN stands for Thank you Note, as in Did I send a Thank you Note for the Reply
⁷ N/A stands for Not Applicable
⁸ Y stands for YES; N stands for NO

		that I can contact, or an English Hotline					
NM Angono-Binangonan Petroglyphs Site	The Philippines	3rd Millennium rock art of both people and animals	nmabpsms020@gmail.com Website:https://www.nationalmuseum.gov.ph/our-museums/regional-area-and-site-museums/rizal/	Y	Y	N	Y
Composite of all Prehistory Museums in Indonesia	Indonesia	There are various Archaeological parks, but all of them are connected to museums. There are many caves with some of the earliest rock art in the world.	bpsmpsangiran@kemdikbud.go.id	Y	N	N	N
Soto Dolomen*	Spain	Dolomen with decorated orthostats (Long grave passage) Neolithic/Bronze Age collective burial sites	Telephone: (+34) 959 305 075 / (+34) 627 940 357 Website: http://www.dolmendesoto.org/ E-mail: promociontigueros@gmail.com	Y	Y	Y	Y
Coa Valley	Portugal	UNESCO rock art site, the largest concentration of paleolithic open-air rock art in the world	Main Museum email: museugeral@arte-coa.pt	Y	N	N	N
Arch. Area of Caeira	Spain	Neolithic/EBA open air rock art site.	Telephone: (+34) 986 833 204 Website: https://terrasdepontevedra.org/es/arte-rupesitre/centro-arqueologico-de-la-caeira/ E-mail: turismo@concellodepoyo.es	Y ⁹	N	N	N

⁹ Attempted to email, but was informed that Email doesn't exist

Rock Art of the Serena Region	Spain	Multiple rock art shelters under one designation dating from Neolithic to Iron age	Telephone: (+34) 924 007 009 Website: https://www.turismoextremadura.com/es/explora/Centro-de-Interpretacion-de-la-Pintura-Rupestre/ E-mail: up@cabezadebuey.es	Y	N	N	N
Enebralejos Cave	Spain	Copper-Bronze age site including hundreds of engravings, no animals though, as well as human remains	Telephone: (+34) 921 507 077, (+34) 921 507 113 Website: https://www.cuevadelosenebralejos.es/es/ E-mail: cuevadelosenebralejos@gmail.com	Y	N	N	N
Open Air Rock Art sites of Domingo Garcia	Spain	Upper Paleo - Modern engravings in two phases Paleo and after paleo, includes Animals as well as people dueling	Telephone: (+34) 921 460 334 Website: http://www.turismocastillayleon.com/es/arte-cultura-patrimonio/yacimientos-arqueologicos/cerro-san-isidro E-mail: oficinadeturismodesegovia@jcy1.es	Y	N	N	N
Idols of Sejos	Spain	Copper and Early Bronze Age circle of stelae with a proposed cultic use	Website: http://www.esenciadecantabria.com/disfruta/turismo-natural/puertos-de-sejos adlmancomunidadreservadelsaja@gmail.com	Y	N	N	N
Monument of Peña Tù*	Spain	Neolithic/EBA open air rock art site, engraved outcropping with a main	Telephone: (+34) 664 38 20 26, (+34) 985 400 164 (Llanes Tourism office) Website: https://www.turismoasturias.es/descubre/c	Y	Y	N	Y

		feature of a human figure and a dagger	ultura/museos-y-espacios-culturales/castros-y-espacios-arqueologicos/idolo-de-penatu E-mail: turismo@ayuntamientodellanes.com				
Parque Arqueológico da Arte Rupestre (Campo Lameiro)	Spain	Recommended to reach out to by my contact point for Peña Tú	info@par.es	Y	N	N	N
Gobustan National Historical Artistic Preserve	Azerbaijan	UNESCO rock art site, seemingly unreliably dated, but copper/bronze age with animal and human engravings	Telephone: (+994 12) 544 66 27 Website: http://gobustan-rockart.az/ E-mail: office@gobustan-rockart.az	Y ¹⁰	N	N	N
Tanum Rock Engravings	Sweden	UNESCO site. Iron age open air site, maybe not the best for this project due to its late age (but Data is Data).	tanumworldheritage@vregion.se https://www.tanumworldheritage.se/?lang=en	Y	N	N	N
Alta Rock Carvings*	Norway	UNESCO world heritage site dating back to 7000 years ago. The site has engravings of many animal figures and is also found on glacially flattened rocks like Naquane.	Tel: +47 41 75 63 30 E-mail: post@altamuseum.no https://www.altamuseum.no/en/the-rock-art-of-alta	Y	Y	N	Y

¹⁰ Attempted to email, but was informed that Email doesn't exist

Astuvansalmi Rock Paintings Geopark*	Finland	Rock Painting hydraulically dated, seems to show evidence of a cultic site due to amber pendants and arrowheads found while diving. Younger than 5700 years ago.	Contacted: Jenna Tiimo Marketing and project coordinator jenna.tiimo@saimaageopark.fi +358 40 482 6123 Answered by: Vilma-Lotta Tallgren (Geoscientist) vilma-lotta.tallgren@saimaageopark.fi	Y	Y	Y	Y
Kilmartin Glen	UK	The highest concentration of rock art in Scotland, maybe older than Cernmo, but it does have standing stones/stelae	enquiries@kilmartin.org	Y	N	N	N
The Baluachraig Carvings	UK	Rock carvings as old as 5000 years, the org in the contact box watches over a bunch of different open air sites.	https://www.historicenvironment.scot/about-us/contact-us/	Y	N	N	N
Escoural Cave	Portugal	Recommended to reach out to by a different reply email (specifically from a PhD student in N. Quebec)	visitar@patrimoniocultural.gov.pt	Y	N	N	N
Capitol Reef NP	USA	Fremont Culture Engravings	(435) 425-3791 https://www.nps.gov/common/utilities/sendemail/sendemail.cfm?o=4884C9BEA2DA11BA9BA91EAEED1EA4A36693569C12B18389&r=/care/contacts.htm	Y	N	N	N

Kaloko-Honokōhau National Historical Park	USA	“Ki'i pohaku Carved in rock, ki'ipohaku (petroglyphs) speak from early and more recent times... Ki'i pohaku in the park include European guns amid more traditional images.”	care_information@nps.gov 808 329-6881 x1329 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4084D3B4A2DA A1BA9B9B1DBFEA59ACA250&r=/kaho/contacts.htm	Y	N	N	N		
Dinosaur National Monument	USA	“Many of the petroglyph and pictograph sites in Dinosaur National Monument are credited to the Fremont peoples who lived in the area between 300 and 1300 CE...” (very late, but data is data).	435 781-7700 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4F8CD5B4A2DAA1BA9BA91EAEED1EA4A36693569C12B18389&r=/dino/contacts.htm	Y	N	N	N		
El Morro National Monument	USA	“The landscape around Atsina (rock art site) would have been utilized by the ancestral Puebloans” (very late, but data is data).	Monument Headquarters (505) 285-4641 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=5C80D5BF84ECA8B386BF14AAD919BBBE089A4999&r=/elmo/contacts.htm	Y	N	N	N		
Mojave National Reserve*	USA	“Colorful cacti, rock art, and fascinating geologic shapes are abundant...”	(760) 252-6100 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=468AD1BAAD2D	Y	Y	N	Y		

			AA1BA9B9B1DBFEA59ACA250&rf=/moja/contacts.htm				
Albates Flint Quarries National Monument	USA	“Among the many archaeological treasures, the petroglyphs at Albates Flint Quarries stand out—intricate designs of animals, humans, and symbols, each believed to hold profound cultural or spiritual meaning.”	(806)857-3151 https://www.nps.gov/common/utilities/sendmail/sendmail.cfm?o=4784D6A9A2DA1A1A891A903BDFC03AAB94F9248AF52A69FD15810B8&rf=/a1fl/contacts.htm	Y	N	N	N
Arches National Park	USA	Petroglyphs modern and more ancient	435-719-2299 https://www.nps.gov/common/utilities/sendmail/sendmail.cfm?o=4A97D8B394DDA9B3B4B503BCB710A4BB&rf=/arch/contacts.htm	Y	N	N	N
Chaco Canyon National Historical Park	USA	“Chaco Canyon is home to thousands of petroglyphs and pictographs.”	(505) 786-7014 ext. 221 https://www.nps.gov/common/utilities/sendmail/sendmail.cfm?o=488DD8AEA2DAA1BA9BA91EAEED1EA4A36693569C12B18389&rf=/chcu/contacts.htm	Y	N	N	N
Grand Canyon-Parashant National Monument*	USA	“Religious specialists made petroglyphs in places full of power such as locations with	(435) 688-3200 para_interpretation@nps.gov	Y ¹¹	Y	Y	Y

¹¹ Ranger Krystal, the interpretive ranger at this site was extremely helpful

		important plants, rocks, or water. They documented events, histories, family stories, and perhaps their own vision quests, at Nampawcap.”					
Bears Ears National Monument	USA	Recommended to contact by Grand Canyon-Parashant NM Rangers	utmtmail@blm.gov	Y	N	N	N
Hawai'i Volcanoes National Park	USA	“The archaeological site of Pu'uloa contains over 23,000 petroglyph images; motifs containing cupules or holes (84% of the total), motifs of circles, other geometric as well as cryptic designs, human representations known as anthropomorphs, canoe sails, and even feathered cape motifs.”	Visitor Information (808) 985-6011 (available from 9 a.m. to 5 p.m., Hawai'i Standard Time)	N	N	N	N
Lava Beds National Monument*	USA	“With over 5,000 individual carvings, this site is one of the most extensive representations	530-667-8113 LABE_Information@nps.gov	Y ¹²	Y	N	Y

¹² The person who replied was named David Curtis (Archaeologist) was very helpful and gave a lot of context and additional resource options.

		of Native American rock art in California”					
Nez Perce National Historical Park*	USA	“Long before European immigrants first set foot in this country, the ancestors of the nimiipuu (Nez Perce) created densely grouped clusters of petroglyphs and a few pictographs on either side of an eddy formed by a series of sharp bends in the Snake River.”	Phone: (208) 843-7009 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4580CBBEA2C5A6AF9DAF1CBDC61EA5AB498F4B8E48BF83917F11BE9450D189A9&r=/nepe/contacts.htm	Y ¹³	Y	N	Y
Organ Pipe Cactus National Monument	USA	“In what is now Organ Pipe Cactus National Monument, archaeological evidence places human beings in this area approximately 16,000 years ago. These people left behind projectile points, seashells, pottery, and rock art. The paths they followed on foot are still carved onto the desert floor...”	520-387-6849 Hours are 9 am to 5 pm daily, Mountain Time (2 hours behind Eastern, 3 hours behind on Daylights Savings Time) https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=64B7EB92A2FAA1BA9BA91EAEED1E4A4A36693569C12B18389&r=/orpi/contacts.htm	Y	N	N	N

¹³ The replicant, Russ Cash (Integrated Resources Division Manager / Archaeologist) was very helpful and profound, I sited them in Section 5.2

Petrified Forest National Park	USA	“The site boasts over 650 petroglyphs covering a group of rockfaces within a small area.”	(928) 524-6228 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=7BA0FD94A2DAA1BA9BA91EAEED1EA4A36693569C12B18389&r=/pefo/contacts.htm	Y	N	N	N
Virgin Islands National Park	USA	“Here, mysterious faces are found carved into the fall’s blue basalt rock. A spring fed pool beneath reflects a 20-foot wide panorama of carvings year-round with other petroglyphs visible nearby.”	https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=5D8CD2A8A2DAA1A891A903BDFC03AAB94F9248AF52A69FD15810B8&r=/vis/contacts.htm	Y	N	N	N
Noatak National Reserve	USA	“At one site a total of 18 individual petroglyph panels were documented, 11 of which are incorporated into the qargi. Another site had 21 petroglyph panels, each on a separate stone within the qargi.”	Headquarters and Visitor Information (907) 442-3890 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=5C80DAA9A2C4AABE99BA1AA3D919BBBE089A4999&r=/noat/contacts.htm Specifically: Scott Shirar, Jeff Rasic, and Eric Carlson	Y	N	N	N
Lake Clark National Park and Reserve	USA	“There is no archaeological evidence of long standing or large community residencies, but painted images on	Phone: (907) 644-3626 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=67A4F897A2E5A6AF9DAF1CBDC63EA5AB498F4B8E	Y	N	N	N

		rock, known as pictographs, vestiges of dwellings, and materials such as stone tools, charcoal deposits and fragmented bones provide a glimpse into ancestral human activity.”	48BF83917F11BE9450D189A9&rl=/acl/contacts.htm				
Petroglyph National Monument	USA	“Archaeologists have estimated there may be over 25,000 petroglyph images along the 17 miles of escarpment within the monument boundary.”	505-899-0205 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=5890C8BA93DDAE8382B21FA3F819BEA8509C66814CA5C2985009&rl=/petr/contacts.htm	Y	N	N	N
Canyonlands National Park (the Needles Area)*	USA	Peek-a-boo Panel	The Needles Visitor Center 435-259-4711 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4884D5A294DDA9B3B4B503BCB710A4BB&rl=/cany/contacts.htm	Y	Y	N	Y
Jeffers Petroglyphs Minnesota State Park	USA	“More than 7,000 years of history are preserved on this outcropping of Sioux quartzite, home to roughly 5,000 rock carvings made by the ancestors of today’s Native Americans.”	jefferspetroglyphs@mnhs.org https://www.mnhs.org/jefferspetroglyphs/learn/rock	Y	Y	N	Y
Valley of Fire Nevada State Park	USA	“World-renowned for its 40,000 acres of bright red	702-397-2088 vofsp@parks.nv.gov	Y	N	N	N

		Aztec sandstone outcrops nestled in gray and tan limestone, Valley of Fire State Park contains ancient, petrified trees and petroglyphs dating back more than 2,000 years”	https://parks.nv.gov/parks/valley-of-fire				
Nine Mile Canyon	USA	“This 46-mile-long canyon is full of Archaic, Fremont and Ute rock art...”	435 636 3701 https://www.carbon.utah.gov/attraction/nine-mile-canyon/	N	N	N	N
Petroglyph Beach State Historic Park	USA	“Wrangell’s Petroglyph Beach boasts the highest concentration of petroglyphs in Southeast Alaska and offers easy access for exploration.”	1 (907) 874-2829 info@travelwrangell.com https://travelwrangell.com/petroglyph-beach	Y	N	N	N
Mesa Verde National Park	USA	“The large petroglyph panel seen along the trail, represents the written language of the people who inhabited and traveled through this canyon. More than thirty human and animal figures, spirals, and handprints cover an area of over 35 feet wide.”	Headquarters - 970-529-4465 Visitor Information - 970-529-4465 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=66A0ED9EA2F4AAB291A912A3C63EASAB498F4B8E48BF83917F11BE9450D189A9&r=/meve/contacts.htm	Y	N	N	N

Petrified Forest National Park	USA	Multiple sites of very early rock art	Visitor Information: (928) 524-6228 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=7BA0FD94A2DAA1BA9BA91EAEED1EA4A36693569C12B18389&r=/petfo/contacts.htm	Y	N	N	N
Bandelier National Monument	USA	“At Long House there are hundreds of petroglyphs, carved drawings, of a variety of subjects including this one of a turkey...”	Visitor Center daytime phone (505) 672-3861 x 0 or 1800 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=69A4F59FA2E5A6AF9DAF1CBDC634AEA3529854AF52A69FD15810B8&r=/bandl/contacts.htm	Y	N	N	N
Hovenweep National Monument*	USA	“We believe the ancestral Puebloans at Holly used this petroglyph panel to mark the summer solstice. Just below the canyon rim, two large boulders form a narrow opening. On the summer solstice, a beam of light enters the narrow opening and lights up the boulder face.”	Visitor Information 970-562-4282 ext. 10 https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=438ACDBE94DDA9B3B4B503BCB710A4BB&r=/hove/contacts.htm	Y	Y	N	N ¹⁴
Crystal River Archaeological State Park	USA	Extremely early settlement (10,000 YA) with STELE!!	352-795-3817 https://www.trailofthoridasindianheritage.org/crystal-river-archaeological-park/	N	N	N	N

¹⁴ The way in which this site contacted me did not allow for a return email, so I was unable to thank them for their data.

Writing-on-Stone / Áisinaí'pi Provincial park	Canada	This one is a UNESCO site and also contains stelae, and glacial erratics	https://albertaparks.ca/parks/south/writing-on-stone-pp/park-research-management/world-heritage-designation/ https://imagesdanslapierre.mcg.org/en/explore/aisinaipi/	Y ¹⁵	N	N	N
Sproat Lake Provincial Park	Canada	Rock engravings along the coast of the Pacific Ocean	parkinfo@gov.bc.ca	Y	Y ¹⁶	N	Y
Pepeshapissinikan Rock Archaeological Site *	Canada	"The Pepeshapissinikan rock art archaeological site is a high granite wall adorned with finger-painted pictograms. Pepeshapissinikan means "one sees naturally painted figures in the rock." Carbon-14 dating has established that these pictograms were painted between 2300 and 2100 years ago."	Contacted: rpeq@mcc.gouv.qc.ca Answered by: Frédéric Hotin ¹⁷ (Responsable des collections archéologiques, Laboratoire et Réserve d'archéologie du Québec) labo-reserve.archeologie@mcc.gouv.qc.ca	Y	Y	Y	Y
Herschel Petroglyphs	Canada	"This stunning archeological site includes a buffalo rubbing stone, buffalo jump, buffalo processing area, and	Phone: (306) 377-2045 Email: anciente@sasktel.net	Y	N	N	N

¹⁵ One of my cohort is friends with the director of this site and gave me their more personal email, so for that reason I did not include it in the Contact info. section.

¹⁶ I received a reply from this park, but the staff indicated they did not have the resources to help me at present, so I thanked them for their reply.

¹⁷ Mr. Hotin is a Doctoral student mentioned earlier in the Europe section, and is also studying the Copper Age in Northern Italy!

		various stone circles the exact meaning of which is still debated.”				
Kejimikujik National Park and National Historic Site	Canada	“The most noticeable traces left by the early Mi'kmaq are the engravings they created in the glacially polished slate outcrops found at several locations around lakeshores.”	902-682-2770 kejimikujik@pc.gc.ca	Y	Y ¹⁸	N
Navajo Nation National Park System	Navajo Nation (in the USA ¹⁹)	“There is rock art on tribal land but it is not discussed online, so I emailed their general information hotline.”	Itsjinimie@navajo-nsn.gov https://navajonationparks.org/	Y	N	N
Brisbane Water National Park*	Australia	Multiple groups of Aboriginal Rock engravings	parks.info@environment.nsw.gov.au npws.centralcoast@environment.nsw.gov.au	Y	Y ²⁰	Y
Ikara-Flinders Ranges National Park	Australia	Multiple groups of Aboriginal Rock engravings	https://www.parks.sa.gov.au/contact-us/get-in-touch-online	Y	N	N

¹⁸ Forwarded my email onwards, but I never heard anything after that.

¹⁹ The Navajo Nation is technically sovereign, but is located across 4 US states

²⁰ Ranger Jeff Betteridge was extremely helpful and very kind. He was one of the first to reply and gave me hope that I would actually be able to collect data.

Garigal National Park	Australia	Multiple groups of Aboriginal Rock engravings	npws.sydneynorth@environment.nsw.gov.au	Y	N	N	N
Kakadu National Park	Australia	“The park has one of the world’s greatest concentrations of rock art sites. Some paintings are up to 20,000 years old, which makes the artwork one of the longest historical records of any group of people on Earth.”	KakaduNP@decew.gov.au	Y	N	N	N
Ayo Rock Formation ²¹	Aruba	This site contains modern graffiti as well as indigenous rock paintings	I visited this site in the Summer of 2022	N/A	N/A	N/A	N/A
Catal-Supe UNESCO site	Peru	This location has multiple large and complex building structures, but there are also various stele/menirs around so I am going to count it.	I visited this site in the Summer of 2018	N/A	N/A	N/A	N/A
Nazca Lines	Peru	A UNESCO site with what could be considered “non traditional” rock art, as it contains massive	I visited this site in the Summer of 2018	N/A	N/A	N/A	N/A

²¹ All of the sites from South America or the Caribbean are not included in the final amalgamation of data as after considering each one closely and consulting others, it was determined that they would not add any helpful additional information and all three sites have extremely different context to that of *Cemmo*.

		figures made of lines, created by walking or moving rocks aside to reveal the lighter coloured gravel below.				
Totals of Contacts and Replies (or considered Visited Sites)			54	16	5	15

Answers from Contacted/Visited Sites

Qs Pertaining to the CONTEXT of the Rock Art site:	
1.	What forms of rock art exist at your site? What is their physical context?
2.	What is the historical context of the rock art at your site?
3.	Has the rock art been reliably dated (using scientific, archaeological, stylistic, historical or other means)?
4.	Are there still living descendants of the original rock artists? If so, does your site have a good relationship with them?
Pertaining to the Educational Aspect:	
5.	What type of information is available for visitors about your rock art site on location (physically at the site)?
6.	How do you contextualize the importance of your rock art site to the wider public (who may not have a strong background in said context)?
7.	Are there ways in which you promote your rock art site educationally (special events, displays at museums/visitor centers, tours, etc.)?
8.	What types of information do you consider absolutely critical to have available for visitors, to help them gain a better grasp of the context of your rock art site?
9.	How does your site preserve the natural beauty/context of the rock art's location, while still making it accessible to visitors?
10.	How does your rock art site address accessibility (physically, informationally, sensorily, etc.) concerns?
11.	How do you get people excited about rock art?
Other General Questions:	
12.	Am I able to cite your answers in my thesis (this can be with a specific name, or generally as I am amalgamating data from many emails)?
13.	Do you have any other recommendations of people or parks that I should reach out to that would be willing to answer questions?
14.	Are there any other ideas I should keep in mind while developing my thesis plan?

African Sites

Twyfelfontein	
1	Rock engravings and Rock Paintings. Located in the Kunene Region, of North Central Namibia in what was once damaraland. The engraved/painted rocks are located in a transitional zone between semi desert, shrubland and savannah, on top of a shale aquifer which creates a spring where the site takes its name from. The engraved boulders themselves are made of a rusty orange sandstone.
2	The site has been inhabited for 6,000 years, first by hunter-gatherers and later by Khoikhoi herders. Both ethnic groups used it as a place of worship and a site to conduct shamanist rituals. In the process of these rituals at least 2,500 items of rock carvings have been created, as well as a few rock paintings. Displaying one of the largest concentrations of rock petroglyphs in Africa.
3	No, because not new archaeology has been done at this site since 1976
4	Yes, the Khoi San are still living, I know they are able to use the area for things as long as they contact the site directors.
5	Each group that comes is led by a local guide and can answer almost any question. Again because the work done on this location is so old, I am not sure how correct it is.
6	Highlighting several things including that the place is really freaking old, that it is still sacred and used by hunter gatherers today, and by showing off the diversity of figures and how they interact with each other.
7	No
8	Who the Khoi San are, and what the rock carvings were used for
9	This site is not accessible for a lot of reasons including ladders and stairs you have to climb, uneven ground, the heat and the fact that it is literally in the middle of nowhere.
10	It doesn't. Disabled people aren't seen in Namibia.
11	If they drive all the way out here, they are excited

12	Not Applicable
13	Not Applicable
14	Not Applicable

European Sites²²

Soto Dolomen (Spain)	
1	Arte esquemático megalítico. Grabados y pinturas que reúnen la totalidad de técnicas y categorías temáticas del arte rupestre megalítico, al ser el megalito más decorado de la península ibérica. Dolmen de Soto (Trigueros, Huelva, España).
	Megalithic schematic art. Engravings and paintings that encompass the full range of techniques and thematic categories of megalithic rock art, as it is the most richly decorated megalith on the Iberian Peninsula. Dolmen of Soto (Trigueros, Huelva, Spain).
2	Estelas y menhires procedentes de un monumento anterior ubicado en el mismo lugar (probablemente un círculo de piedras), que fueron reutilizados en la construcción del dolmen, y luego regrabados durante más de dos mil años. En resumen, estas decoraciones abarcan un largo periodo entre la última fase del Neolítico y el Bronce final (IV-II milenio a.n.e.).
	Stelae and menhirs originating from an earlier monument located at the same site (probably a stone circle), which were reused in the construction of the dolmen and later re-engraved over more than two thousand years. In summary, these decorations span a long period between the final phase of the Neolithic and the Late Bronze Age (4th–2nd millennium BCE).
3	Las decoraciones y pigmentos del Dolmen de Soto están entre los más estudiados de Europa, usándose metodología actual, como puede verse en la obra de: Bueno, P., Linares, J. A., Balbín, R., Barroso, R. (Eds.) (2018) Símbolos de la muerte en la prehistoria reciente del sur

²² Answers will be provided in their original form in Black text, and their translated form in a darker version of their continental colour (ex. Europe = Purple)

	de Europa. El dolmen de Soto, Huelva. España. Sevilla: Junta de Andalucía.
	The decorations and pigments of the Dolmen of Soto are among the most studied in Europe, using modern methodologies, as seen in the work: Bueno, P., Linares, J. A., Balbín, R., Barroso, R. (Eds.) (2018) Symbols of Death in the Recent Prehistory of Southern Europe. The Dolmen of Soto, Huelva, Spain. Seville: Junta de Andalucía.
4	No.
5	1) Poste con QR que dirige a este enlace: https://artpoints.prehistour.eu/points/12 2) Paneles informativos en el recinto 3) Cartelería con QR que dirige a este enlace donde se pueden descargar videos y folletos: https://www.juntadeandalucia.es/cultura/enclaves/enclave-arqueologico-dolmen-de-soto y a la web municipal (www.trigueros.es) 1) A post with a QR code linking to: https://artpoints.prehistour.eu/points/12 2) Informational panels within the enclosure 3) Signage with QR codes linking to downloadable videos and brochures at (https://www.juntadeandalucia.es/cultura/enclaves/enclave-arqueologico-dolmen-de-soto) and to the municipal website: (www.trigueros.es)
6	Función del monumento como observatorio astronómico, tumba y templo, y en este contexto, el arte rupestre como decoración y sobre todo como memoria colectiva ligada al culto de ancestros. Para los menores, asemejamos los símbolos prehistóricos a la señalética que ellos acostumbraban a ver en medios de comunicación, redes sociales, y en su entorno. The function of the monument as an astronomical observatory, tomb, and temple, and within this context, rock art as decoration and, above all, as collective memory linked to ancestor worship. For children, prehistoric symbols are compared to the types of signage they are used to seeing in media, social networks, and their everyday environment.
7	Visitas guiadas: turísticas y de educación o de interpretación patrimonial. Actividades en el dolmen para centros educativos y en centros educativos. Congreso internacional CIMAR-ICRAM Celebración del día europeo de la Cultura Megalítica

	Celebración del día europeo del Arte Rupestre Jornadas Europeas de Arqueología Día internacional de los Monumentos y Sitios CIMO Trigueros (Centro de Interpretación del Megalitismo Onubense, en Trigueros) Exposiciones en el Museo Provincial de Huelva Visualización de los Equinoccios en el Dolmen de Soto Lunas de Soto (actividades culturales-lúdicas en las noches de verano) Guided tours: tourism-focused, educational, and heritage interpretation. Activities at the dolmen for schools and within educational centers. International Congress CIMAR-ICRAM. Celebration of the European Day of Megalithic Culture. Celebration of the European Rock Art Day. European Archaeology Days. International Day for Monuments and Sites. CIMO Trigueros (Interpretation Centre of Megalithism of Huelva, in Trigueros). Exhibitions at the Provincial Museum of Huelva. Observation of the equinoxes at the Dolmen of Soto. “Lunas de Soto” (cultural and leisure activities on summer nights).
8	La información histórica relativa a la cronología, el significado de los símbolos, técnicas, y función dentro del contexto funerario. Historical information related to chronology, the meaning of symbols, techniques, and their function within the funerary context.
9	El dolmen de Soto junto a otros dos dólmenes que forman el conjunto, su yacimiento arqueológico, y su entorno natural (paisaje cultural), están legalmente protegidos con la máxima categoría que permite la legislación española (BIC Bien de Interés Cultural). Un acuerdo entre la Junta de Andalucía (gobierno regional) y el Ayuntamiento de Trigueros mantiene el entorno en buenas condiciones. The Dolmen of Soto, together with two other dolmens that form the complex, its archaeological site, and its natural surroundings (cultural landscape), are legally protected under the highest category permitted by Spanish law (BIC – Asset of Cultural Interest). An agreement between the Junta de Andalucía (regional government) and the Municipality of Trigueros ensures the site is kept in good condition.
10	No hay barreras en lo relativo a la movilidad. En los sitios web mencionados hay recursos en varios idiomas y sonoros. En el CIMO hay

	objetos tocables y textos en dos idiomas. There are no barriers in terms of mobility. The mentioned websites provide resources in multiple languages and audio formats. At CIMO, there are tactile objects and texts in two languages.
11	El completo programa de actividades anual que hemos descrito y que está dirigido a distintos públicos, desde el escolar al profesional. Presentaciones en redes sociales, medios de comunicación y ferias de turismo. A comprehensive annual program of activities aimed at diverse audiences, from school groups to professionals. Presentations on social media, in the media, and at tourism fairs.
12	Sí, puede citarlas. Yes, you may cite them.
13	Los incluidos en la red PRAT-CARP https://www.prehistour.eu/es/ . Those included in the PRAT-CARP network: https://www.prehistour.eu/es/
14	Muchas gracias por su interés en el Dolmen de Soto (Trigueros, Huelva, España). Thank you very much for your interest in the Dolmen of Soto (Trigueros, Huelva, Spain).

Monument of Peña Tú (Spain)	
1	Peña Tú is a sandstone crag that rises at the western end of the flat La Borbolla mountain range (Llanes), near Puertas de Vidiago, and in whose surroundings some fifty megalithic burial mounds have been documented. At the base of the rocky crag, under a small overhang, a collection of engravings and paintings of considerable interest is preserved. Three types of representations can be distinguished: painted schematizations, forming a series of dots and anthropomorphic figures, and the one known as an idol and a dagger. From the modern period, a third group of representations is preserved, consisting of engraved and pecked crosses. (First 3 answers from the Website provided by my contact point: https://artepaleoliticoenasturias.com/peña-tu/)
2	Most researchers seem to accept the connection between the statues and stelae of northern Spain, which include the anthropomorphic representation at Peña Tú, and megalithic tumulus necropolises. Regarding this particular group, the relationship with the burials at Sierra Plana de La Borbolla appears evident.
3	Yes and no, there has been stylistic dating. Regarding chronological attribution, the depiction of the dagger is precisely what allows for better contextualization, with formal parallels in Late Bell Beaker or Epicampaniform models. In general, the synchronicity of the entire

	set has been assumed, regardless of the techniques used and the motifs represented, framing its creation in the Chalcolithic period, throughout the third millennium BC . However, diachronic analyses have also been proposed, from the end of the Neolithic period, to which the schematizations and painted dots would correspond, to the Early Bronze Age to which the dagger-idol pair would belong.
4	No, no existen descendientes vivos conocidos de los autores originales. No, there are no known living descendants of the original authors.
5	Existe un panel informativo en el punto de acceso. <i>There is an information panel at the access point.</i>
6	Los elementos que pueden indicar al público general la importancia del lugar son tres: Se indica la protección que tiene el yacimiento: bien de interés cultural, máxima protección de la normativa española; Se encuentra señalizado, mediante panel informativo, lo que llama la atención ya del visitante respecto de cualquier otro punto de la zona que no cuente con ninguna indicación; Se encuentra vallado para su protección física. <i>There are three elements that can indicate to the general public the importance of the place: The protected status of the site is indicated: it is a cultural asset, receiving the highest level of protection under Spanish law; It is signposted with an information panel, which immediately draws the visitor's attention compared to other points in the area that lack any signage; That link contains a description and bibliographic references for this site. Additionally, that website includes information on rock art found in caves in our region, although that art dates from the period prior to the one you are researching (Paleolithic); It is fenced off for its physical protection.</i>
7	Si. Al tratarse del único yacimiento de este periodo y por su singularidad, cuenta con un apartado especial en el Museo Arqueológico de Asturias, donde existe una recreación o reinterpretación artística del mismo. <i>Yes. As it is the only site from this period and due to its uniqueness, it has a special section in the Archaeological Museum of Asturias, where there is an artistic recreation or reinterpretation of it.</i>
8	Una descripción somera y los datos sobre su antigüedad. <i>A brief description and information about its age.</i>
9	El entorno de este monumento se encuentra protegido desde el punto de vista administrativo. En síntesis, esto significa que cualquier actividad que se realice en el entorno de protección debe contar con autorización previa del organismo que tiene atribuida la competencia de la protección. En este caso, es la administración regional (Principado de Asturias). La protección como tal de ese entorno se encuentra publicada en el siguiente Decreto: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2017-14600 <i>The area surrounding this monument is administratively protected. In short, this means that any activity carried out within the protected area must have prior authorization from the body responsible for its protection. In this case, it is the regional administration (Principality of Asturias). The protection of that environment as such is published in the following Decree:</i>

	https://www.boe.es/diario_boe/txt.php?id=BOE-A-2017-14600
10	Dada la ubicación del yacimiento, no es posible abordar estos aspectos. Given the location of the site, it is not possible to address these aspects.
11	Ninguna. La valoración de la sociedad por este tipo de arte es alta, de forma que el interés por estos yacimientos no necesita incentivos por parte de la administración. None. Society's appreciation for this type of art is high, so interest in these sites does not need incentives from the administration.
12	Si. Dirección General de Patrimonio Cultural. Yes. General Directorate of Cultural Heritage.
13	Existen parques arqueológicos de arte rupestre de periodos cercanos a este (Neolítico, Calcolítico) en la región vecina de Galicia. There are archaeological parks of rock art from periods close to this one (Neolithic, Chalcolithic) in the neighboring region of Galicia.
14	No.

Alta Rock Carvings (Norway)²³

1	This rock art site has both Engravings and paintings. There are many sites, but four main sites which are on the UNESCO list: Hjemmeluft, Kålfjord, Transfårelv, Storsteinen and Amthannnes. All of the engravings appear on flat smooth rocks, made this way by weathering from the sea and Uplift (maybe also glaciers? unclear). The type of rock that the carvings were chiselled into is a softish clay slate with red and green vertical stripes. The sites are at Ratsnesfjellet on the east side of the Altafjord in a landscape characterised by rocky outcrops, narrow passes, and stone screens. Here there are human figures, deer/reindeer, geometrical figures, lines and patches of colour. The colouring agent that was used was iron oxide mixed with blood, fat or other binding agents.
2	Alta has the largest concentration of rock art made by hunter-gatherers in northern Europe. The rock art comprises both rock carvings and rock paintings made from 7000 to 2000 years ago. Storsteinen is unusual in that over several thousand years people have come back to carve new figures on the same rock surface, which is why there are so many figures on top of each other. In Alta, people usually made use of the smooth rock surfaces by the shore. As the land rose from the sea due to land upheaval, new rock surfaces were used.

²³ All of the questions for this section were answered using the website links I was given in the reply to my email.

	Storsteinen lies between the other large rock carving areas in Alta, with Hjemmeluft and Kålfjord on one side and Amtmannsnes on the other. Hjemmeluft and Kålfjord were the most important areas in the two oldest phases. However, in the third phase activity at these sites practically ceased, and Amtmannsnes became the new major site for rock carving. But throughout the changing focus of all these phases (1-3), Storsteinen has retained its role as a place for rituals.
3	Yes and no, there is Geological dating. There is broad agreement among researchers that the rock carvings in Alta were made on the smooth rock surfaces at the water's edge. As the land gradually rose, and new rock surfaces came to light, the artists made use of these for their carvings. The oldest scenes are therefore high above present sea levels, whilst the later ones are lower down in the terrain. It is uncertain whether the rock paintings had the same close connection with the sea and the shoreline as the rock carvings. Based on the rock carvings' height above sea level, we can divide them into different chronological phases that can be dated to the period from c 5000BC to the birth of Christ.
4	Nope. Too Old
5	There appears to be both informational panels and booklets (that can be picked up I am assuming at the museum), as well as an audio tour you can access on your phone.
6	<i>Unable to Answer</i>
7	A museum and special activities that 'interact' with the stone age like archery and knapping.
8	<i>Unable to Answer</i>
9	Elevated hiking trails, and in the 70s/80s some of the rock art was painted red to ensure it was visible for all and protected. "You have the option between a trail of 1,2 km or a trip of 1,9 km. The shorter trail of 1,2 km in the western end will take you to rock carvings that have been painted in red. This makes them easier to see in different weather conditions. On the eastern side are the unpainted rock carvings. Some of these can be difficult to spot in cloudy conditions, but use our guide leaflet to localize as many carvings as possible. Good luck on your rock art hunt!"
10	There is an audio tour and the ramps/boardwalks created seem extremely accessible. There are also a tonne of online resources like access to archive of images on a satellite map, and 3D models.
11	<i>Unable to Answer</i>

12	<i>Unable to Answer</i>
13	<i>Unable to Answer</i>
14	<i>Unable to Answer</i>

Astuvansalmi Rock Paintings Geopark (Finland)	
1	Meillä on kalliomalauksia, jotka on maalattu punamullalla kalliorykännteisiin. We have rock paintings that have been painted with red ochre on rock faces (cliffs).
2	Kalliotaide alueellamme on kivikautista, esimerkiksi Astuvansalmen maalaukset on tehty 6000–4200 vuotta sitten. The rock art in our area dates to the Stone Age. For example, the paintings at Astuvansalmi were created approximately 6,000–4,200 years ago.
3	Kalliomalauksien ajoituksessa on käytetty ainakin rannansiirtymäakronologiaa. Kun tiedetään menneistä vedenkorkeuden muutoksista ja niiden ajoituksista, on maalaisten korkeutta voitu verrata menneisiin vedenpinnan korkeuksiin. Shore displacement chronology has been used in dating the rock paintings. When past water level changes and their timing are known, the height of the paintings can be compared to historical water levels.
4	Kohteet ovat niin vanhoja, ettei tätä pysty sanomaan. The sites are so old that this cannot be determined.
5	Joissakin kohteissa on infotauluja, joissa kerrotaan kohteista. Some sites have information boards that provide details about the sites.
6	Niistä kohteista, jotka ovat Geoparkin geokohteita, on tietoa nettisivuillamme. For those sites that are part of the Geopark, information is available on our website.
7	Meillä on vierailukeskuksessamme Mikkelin kunnassa tietoa alueemme suurimmasta kalliomalauksesta (Astuvansalmi). Lisäksi kerromme kalliomalauksissa tapahtumisista, mikäli se sopii aiheeseen tai niistä tulee kysymyksiä. At our visitor center in the municipality of Mikkelä, we provide information about the largest rock painting in our area (Astuvansalmi). We also talk about rock paintings during events when relevant or when questions arise.

8	Pidän tärkeänä tietoa kalliomaalausten ajoituksista ja siitä, millaista kalliotaiteen tekijöiden elämä ja elinympäristö on ollut niiden aikana. I consider it important to provide information about the dating of the rock paintings and about the life and environment of the people who created them.
9	Muinaismuistot ovat suojeltuja kohteita ja maalausten suojelu on yleensä myös maanomistajan kiinnostuksen kohteena, sillä kalliomaalaukset ovat yleisesti pidettyjä ja arvostettuja muinaisjäännöksiä. Kohteissa on reittejä ja esimerkiksi katselutasanteita. Esimerkiksi Astuvansalmen kalliomaalauksella näitä ollaan uusimassa. Ancient monuments are protected sites, and protecting the paintings is usually also in the landowner's interest, as rock paintings are generally valued and appreciated cultural heritage sites. There are routes and viewing platforms at the sites. For example, these are currently being renewed at the Astuvansalmi rock painting site.
10	Kohteista ei voi tehdä esteettömiä, mutta esimerkiksi Astuvansalmen maalausta on mahdollista katsoa myös vesiltä, esimerkiksi laivan tai veneen kyydistä. Tietoa pyrimme jakamaan helposti ymmärrettävässä muodossa. The sites cannot be made fully accessible, but for example, the Astuvansalmi painting can also be viewed from the water, such as from a boat or ship. We aim to present information in an easily understandable format.
11	Jakamalla tietoa niistä. Usein ihmiset ovat jo valmiiksi kiinnostuneita kalliomaalauksista. By sharing information about it. Often people are already interested in rock paintings.
12	Kyllä, mutta toivon vielä erikseen tarkastusta siitä missä yhteydessä. Yes, but I would like to review the context in which they are used. ²⁴
13	Suomessa Ismo Luukkonen (https://ismoluukkonen.net/) onkin sinulla jo ehkä tiedossa. Voitit myös löytää vastauksia Museovirastolta (https://www.museovirasto.fi/en/) tai Metsähallitukselta (omistaa osan kohteista) https://www.metsa.fi/en/ . In Finland, Ismo Luukkonen (https://ismoluukkonen.net/) may already be known to you. You could also find answers from the Finnish Heritage Agency (https://www.museovirasto.fi/en/) or Metsähallitus (which owns some of the sites): https://www.metsa.fi/en/
14	Ei tule mieleen, onnea matkaan ja hienoa että teet tutkimusta! None come to mind—good luck with your work, and it's great that you are conducting research!

²⁴ I did send them the section of my thesis in which these answers were used (5.2) as instructed and heard nothing back.

North American Sites

Mojave National Reserve (US)	
1	We have petroglyphs, pictographs, and cupules. They can be found on basalt, rhyolite, granite and limestone on boulder and cliff faces and in rock shelters.
2	Context is generally associated with ceremonial activities such as vision quests or puberty rituals. Some of the rock art has been dated using cat-ion ratio dating, stylistic cultural affiliation, and ethnographic resources.
3	<i>Not Answered</i>
4	Yes there are living descendants and we have a good relationship with them.
5	We do very minimal single interpretive signage. We leave most of the responsibility of learning about the rock art to the individual and provide only the barest of context for a very basic understanding of the possibilities of function and meaning.
6	The rock art is in its native setting with only a single interpretive sign and a dirt pathway through the site.
7	<i>Not Answered</i>
8	<i>Not Answered</i>
9	<i>Not Answered</i>
10	Yes, due to the remote nature and rough terrain our rock art sites are not accessible.
11	Again, the interest generated is left up to the public. We do little but to minimally interpret and then leave further research up to the individual.
12	You may cite and use whatever exchanges occur between us.
13	Also, please see the Condition Assessment and Treatment Plan for a project I am working on presently with Great Basin National Park.

14	<i>Not Answered</i>
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Grand Canyon-Parashant National Monument (US)	
1	The majority of our “rock writing” (term preferred by our local tribes) are petroglyphs pecked into both vertical and horizontal rock surfaces on cliffs, boulders, and bedrock. The terms rock writing or rock imagery are the preferred terms by our associated tribes. This is because petroglyphs and pictographs hold important messages and stories, and while they are in a way artistic expressions, they hold far more value than the context of the term ‘rock art’ generally conveys.
2	The rock writing is believed to have accumulated along the natural corridor of the dry drainage over a period of several thousand years. Grand Canyon-Parashant National Monument has approximately 13 associate tribes, 7 of which are individual bands of the Southern Paiute People. Southern Paiute people, as well as their ancestors the Ancestral Puebloans, have inhabited this area for time immemorial. The petroglyphs at Nampawear specifically are also in a lava field that holds significant meaning for the modern Southern Paiute People. The name ‘Nampawear’ is Southern Paiute for ‘Big foot canyon’, likely informed by the large petroglyphs shaped like human feet that can be found along the canyon.
3	No reliable chronometric dates. Dating is primarily stylistic.
4	Yes, and yes. Tribal consultation is extremely important to our park’s mission and priorities, and we still hold an annual tribal youth camp in the area today. The goal of this camp is to invite Southern Paiute Youth to learn traditional skills from their own elders and connect with their traditional homelands.
5	On-site information is primarily an interpretive display panel and pamphlets in the register box.
6	The importance of preserving rock art is really what we emphasize rather than trying to connect the site to the wider public. In North America, we are primarily “colonial” archaeologists examining other peoples’ ancestors. The interpretive panels at the site were informed by tribal consultation. Alongside highlighting the importance of preservation of these resources, we also work with these tribes to interpret the meaning of such special places. These are their stories, we simply try to provide resources, oversight, and federal collaboration to help tell their story and histories to the public. Direct input from local tribes is vitally important to our interpretation of the site.

7	We have worked with volunteer groups to assist in documenting the rock art throughout the canyon, but we generally don't promote visitation other than through its inclusion on a "scenic attraction" map and pamphlets.
8	The ground rules of no touching/chalking/etc. But also, who, when, and the various potential explanations of why.
9	Current struggle. Our visitation has been increasing dramatically. The site is very remote (2.5 hours on dirt roads) so the general context of the canyon setting is not impacted. We are currently dealing with the proliferation of "social trails" created by the public for closer access that are impacting and shifting boulders. We have been working on revegetating/obliterating the social trails with cacti and other vegetation.
10	Physical accessibility would be very difficult without some type of "off-road" capable device. Currently, physical accessibility for disabled persons would be very difficult due to both the remote location of the site as well as the terrain of the trail itself. All site-specific plans, including public use sites such as Nampawear, are managed in accordance to Grand Canyon-Parashant National Monument's Resource Management Plan (RPM) which also informs and restricts what we can and cannot do to create access to the site. While no updates or changes are in the works at this time, with new technology, opportunities for site 3D tours are becoming more and more feasible as well. The BLM [Bureau of Land Management] has used this technology to create tours of difficult to access archeology sites in Bears Ears National Monument.
11	Rarely has been a concern in the American Southwest. Lots of very interested people with numerous protected/interpreted sites to visit and even more "chance encounters" awaiting them around nearly every corner. Also, leading again with tribal-informed interpretation, and highlighting the knowledge to be gained and the experiences to be had through learning about other cultures can be a catalyst for many people to become interested in these sites as well.
12	Yes
13	Petroglyph National Monument in Albuquerque, New Mexico would be a good one to approach. Relatively "new" monument right next to large growing urban area with lots of living descendants and, I'm sure, interesting interpretive/educational problems. Natural Bridges National Monument and Hovenweep National Monuments in South Eastern Utah, as well as Bears Ears National Monument.
14	Very excited to see someone exploring this issue. Would love to see the Thesis when completed!

Lava Beds National Monument (US)

1	- Lava Beds National Monument manages several rock imagery sites. Stylistically, the rock imagery is defined as the Klamath Basin Style; unique to the region. The style includes both petroglyphs and pictographs and is characterized largely by prolific use of geometric figures (especially circles, drilled holes, parallel lines, and zigzag or wavy lines). Human figures are rare and game animal representations are absent. - One of the most significant sites is Petroglyph Point, which is a physically separate unit to the primary monument. Petroglyph Point contains an estimated 5,000 elements of petroglyphs that are primarily placed on an approximately 500m-long section of the west-facing cliffside of a volcanic tuff cone that formed approximately 273,000 ±18,000 years ago. However, additional petroglyphs do exist on the east side of the land formation on a similar cliff face. The tuff cone was historically surrounded by a freshwater lake on three sides from its inception until about 1905–1915 CE, when the lake was drained by the US Bureau of Reclamation to create new agricultural land. - Another of the most significant sites is Fern Cave, which is a lava tube cave containing an unestimated number of pictographs within its interior. The pigments used are black and white and the motifs contain the same as those listed for Petroglyph Point but with an increased appearance of human figures. The pictographs were created largely on the walls of the lava tube but some appear on the ceiling as well. The lava tube likely formed at some point during an eruptive stage of Medicine Lake Shield Volcano 100,000–13,000 years ago and is composed of basalt (48.4–55.9 percent SiO₂) and basaltic andesite. - Numerous other sites lie scattered across the landscape within Lava Beds National Monument, mostly pictographs appearing within lava tube caves but with some sporadic appearances of above-ground petroglyphs. The latter primarily consist of cupule concentrations, colloquially known as “rain rocks.” Only two lava tubes that contain pictographs are open to the public—Big Painted Cave and Symbol Bridge.
2	The Klamath Basin Style of rock imagery is exclusive to the indigenous Klamath and Modoc nations and their ancestors, whose combined territories spanned approximately 8,500 square miles and was centered around the historic Klamath and Tule lake basins. The Klamath and Modoc peoples closely share cultural markers – linguistically, religiously, societally, and materially – but consider themselves separate tribes. Regarding the creation and intention of the rock imagery, the prevailing theory argues that it was created as a means for directly accessing spiritual power at sites known to be attributed to specific, named ancestor spirits. Access to power was not limited to religious leaders as all people were allowed to seek spiritual power, but certain sites were restricted only to specialists. Power questing was considered a vital component to a Klamath and Modoc individual’s personal development – man or woman, spiritual specialist or non-specialist – and was performed as many times throughout an individual’s lifetime as they felt necessary. Ethnographic evidence suggests that many sites were revisited across generations and that some rock imagery would be refreshed, either repainted or re-incised, by those individuals.

3	- To date, no robust studies have been performed on any rock imagery attributed to the Klamath Basin Style, either within or outside of Lava Beds National Monument. Only one chronometric study thus far has been performed and was done so at the Fern Cave site in 1997. The results of this study provided three AMS dates (uncalibrated) of 840 ± 70, 330 ± 50, and 230 ± 70. - Indirect dating methods have been employed that examined climatic patterns of the early Holocene. A 1990 study that developed a climatic model for wet and dry periods affecting water levels of Tule Lake determined that the cliff face at Petroglyph Point was inundated at specific intervals. This study proposes that the creation of the rock imagery occurred either within the last 500 years, between 4500 and 2600 BP, or 6400–5700 BP. Based on the model, the study argues that the latter range represents the oldest possible dates for the rock imagery. The same study conjectures that the pictographs within Fern Cave occurred only within the last 500 years—although it does so only through anecdotal evidence. o Both studies listed above are problematic in their techniques and conclusions and require revisitation.
4	Yes, the Klamath Tribes of Klamath, Modoc, and Yahooskin and the Modoc Nation. Both tribal groups have an active relationship with Lava Beds National Monument. By law, the monument is required to consult with the associated tribes on a government-to-government basis regarding any undertakings by the monument and its staff. These consultations are facilitated by an in-house tribal liaison who has worked with the tribes for 15 years. Beyond this legal requirement, staff of the Lava Beds National Monument frequently engage with tribal members and groups on a collaborative level to provide access to various resources for spiritual and educational gain.
5	The interpretive material available for the public regarding rock imagery is restricted to a single pamphlet available on-site at Petroglyph Point and a handful of waysides or kiosks at select locations (i.e., Petroglyph Point, Big Painted Cave, and Symbol Bridge).
6	The interpretive material described above uses information that pre-dates the last 15 years of research on the subject. Therefore, it presents an inaccurate and incomplete narrative for monument visitors and is in dire need of updating.
7	Lava Beds National Monument does not provide formal tours of any rock imagery site that it manages unless at the request of the associated tribal groups described above. In these cases, I usually provide a guided tour of Petroglyph Point. Formal displays are not employed and special events do not occur. This stance is taken largely in response to the NPS mission statement to preserve the cultural and natural resources that it manages, thus limiting public engagement to the aforementioned Petroglyph Point, Big Painted Cave, and Symbol Bridge. Some information is provided on the monument's website (Images in Stone) but, like the other interpretive material, it is outdated and inaccurate.
8	I believe it is of singular importance for visitors to learn that the descendants of those who made the rock imagery, and lived throughout the greater region, are very much alive and continue to be active community members. It is also of utmost importance to apply the

	research of recent specialists in order to proliferate a more refined understanding of the rock imagery's purpose and the intentions of its creators.
9	- Presently, a chain-link fence provides a physical barrier at Petroglyph Point. Occasionally, law enforcement staff will set up a camera at the site, although I'm not privy to the reasons for exactly why or when this occurs. Similarly, an iron gate with a padlock barricades the entrance to Fern Cave. This site is closed to the public and access is allowed only to tribal members of the Klamath Tribes and Modoc Nation. An indirect protective measure is provided at Big Painted Cave and Symbol Bridge by signage that entreats visitors not to deface or interact with the rock imagery. - Regarding Petroglyph Point, the monument has recently developed a site management plan that proposes to revamp visitor engagement by replacing the fence with a more aesthetically pleasing physical structure that respects the spiritual significance of the site while still providing visual access to the rock imagery. Implementation of this plan is currently unscheduled, however.
10	- Currently, the rock imagery sites open to the public are not physically accessible for those with mobility issues. This concern has been incorporated, however, into the proposed site management plan for Petroglyph Point by developing infrastructure that facilitates the needs of those with mobility restrictions.
11	I do so through direct engagement, whether that be a guided tour of the site(s) or through discussion with visitors. In these cases, I discuss what I've learned from the prevailing research on the matter as well as my own research into the cultural history of the indigenous Modocs. I believe my passion for the subject is conveyed in my rhetoric.
12	Yes, I'm comfortable with being cited.
13	First and foremost, I recommend contacting the culture and heritage programs for the Klamath Tribes and the Modoc Nation. If you haven't already done so, I recommend reaching out to the Mojave National Preserve (another National Park Service unit).
14	I'm unfamiliar with how cultural histories are treated in Europe and Italy but the only thing I would recommend is to interview the locals about their knowledge of the site. Oral histories often contain much more information than what can be gleaned from other avenues of research and can actually help to inform said research. This is also an effective method to learn what visitors find desirable about the site.

Nez Perce National Historical Park (US)	
1	At our park, we have multiple rock art sites. Most are small rock art panels with only a small number of figures. All these figures are petroglyphs. Pictographs aren't as common in this area. However, we do have one large rock art site that is immediately adjacent to the Snake River on the Washington side of the river bank. This site is called Buffalo Eddy and is open to the public. The site consists of multiple rock art panels with a large number of petroglyphs. These petroglyphs consist of anthropomorphic figures, animals, and abstract designs pecked into large basalt rock boulders on the bank of the river. The site itself is approximately 200 sq meters. The site is open to the public and is actively interpreted to the public as well.
2	The rock art at our sites comes from the Nez Perce People and other Columbia River Plateau peoples. We have archaeology sites at park designated sites that are 10,000+ years before present. There are several sites outside of the park that also date to 10,000+ years before present. This area of the country was likely one of the first areas settled inland from the coast after the migration of people crossing the Bering Land Bridge due to the large navigable rivers that lead to the Pacific Ocean. Other rock art is more current and dates to the post Euro-American contact era.
3	Not all of our rock art sites have been reliably dated using scientific methods, but some have.
4	It is assumed that the Nez Perce people are the descendants of those that created the rock art. We have a good relationship with the tribe and the park is named after that tribe. We work with them regularly on education, archaeological, research, maintenance, and interpretive projects.
5	The location of all our rock art sites (with the exception of Buffalo Eddy) are not disclosed to the public, are protected by the Archaeological Resources Protection Act, and there is no public information at those sites or in our publications about those sites. At Buffalo Eddy, there are multiple interpretive wayside signs/panels that provide information to the public about the site and also ask for people to respect the location and the rock art at the site.
6	Our primary means of contextualizing and emphasizing the importance of the rock art site to the public is done via our website at https://www.nps.gov/nepe/learn/historyculture/buffalo-eddy.htm and in publications that we hand out to visitors of the park.
7	Our website is the primary way in which we provide information about the site. Due to the view of indigenous tribes that emphasizes the importance (and often sacred nature) of rock art, we don't promote these sites to gain visitation. The site is well-known in the region, and is easily accessible. If it were not easily accessible, it is likely that its location would be hidden from the public due to the significance

	and size of the site. It has been the practice of most agencies to withhold location information about rock art sites and not promote them. Not disclosing locations and not promoting sites is generally considered one of the best means of protecting these sites. There are many individuals out there that trade illegally in antiquities and indigenous American cultural material. They will sometimes go to such lengths as cutting out sections of rock art panels to illegally keep or even sell. It's an unfortunate practice. Preventing locational knowledge from becoming public helps protect these sites. Unfortunately, once history has been destroyed, we don't get it back. You can always grow another tree, grow another flower, breed another mountain lion, or print more brochures. You can't regain history.
8	I think that the most important piece of information is the significance of the site. They aren't just relics of an old culture that is dead and gone. These petroglyphs are still actively used in modern indigenous cultural practices, they carry significant spiritual and cultural value to an indigenous culture that is older than this country. They aren't a sideshow. They are held in a sacred regard by indigenous cultures. They aren't a piece of art in a museum such as the Smithsonian, the Louvre, or other places that display art. Rock art isn't art in the traditional western context. Indigenous American rock "art" is an expression of a spiritual practice, an historic record for that culture, a tool for continuing an oral history tradition, and represents a continuous connection to ancestors and spirits that spans millennia. It's not a painting or necessarily an artistic expression like we would value a Rembrandt, a Van Gogh, or Picasso painting.
9	We have archaeologists and conservationists that regularly monitor the site, document changes, and repair any damage that occurs to the site. We also have botanists that control vegetation around the rock art panels that prevent vegetation from encroaching onto the panels. We have a facilities crew that maintains a visitor trail to the site. We also have education/interpretive rangers that discuss the site with the public to help instill an understanding of significance, respect, and stewardship over the site.
10	We maintain a trail to the site from a parking lot near the Buffalo Eddy site. No other rock art site has any facilitated access. The trail that leads to Buffalo Eddy is regularly repaired and maintained by our facilities division. The information waysides are maintained by our interpretive staff. Any updates to the information is undertaken by our interpretive division in collaboration with the Nez Perce Tribe.
11	I generally find that people get most excited about rock art sites when the age of the sites is discussed. There truly is something special about viewing something that was created by someone over 10,000 years ago. There is nothing more powerful for connecting someone to humanity's past than a creation made by a human we will never know, that we never knew, that is from an unknown place, from an unknown family, and from an unknown state of mind. The only thing we can connect to is a sense of our shared humanity across millennia.
12	<i>Not Answered</i>

13	<i>Not Answered</i>
14	<i>Not Answered</i>

Canyonlands National Park (US)	
1	Petroglyphs and pictographs. The images are both carved and painted on Sandstone cliff faces into the desert varnish. It is a high desert biome, with Juniper and Pinyon pine trees. These images appear high on the cliff face as the valley floor had more sediment deposits when they were applied to the sandstone. This sediment deposits have since eroded.
2	These images were placed anywhere from 5,000 BCE to 1300 AD. We also have some post-Spanish contact images, so 1500 AD timeframe.
3	Yes, the pictographs have dated via C-dating and the petroglyphs via historical and style dating.
4	Yes and Yes, the National Park Service works closely with the descendant groups to ensure their voiced is heard and part of the park interpretation of cultural resources.
5	At these sites, there are interpretative wayside exhibits that discuss the history of the people who created these images.
6	The National Park Service provides interpretative opportunities for the public to understand the importance of these images through interpretative programming, wayside exhibits, and brochures. The interpretative opportunities provide the public an avenue in which to understand the cultural significance of these images to American heritage
7	Yes, our visitor center provides educational material about the images and appropriate ways to visit/interact with these images.
8	The historical and present-day value of these images. These aren't images from a dead culture, but rather a living, vibrant culture that exists today.
9	The natural terrain itself protects the images. The images are high on cliff faces (people are unable to access them), so they are naturally protected.

10	Visitors are able to view the images from park roadways.
11	Via education, visitors come to appreciate the landscape and the cultural history within it.
12	National Park Service, we are unable to be individually cited, but rather just as an agency itself.
13	Have you reached out to Petroglyph National Monument in Albuquerque, New Mexico? I would also reach out to the BLM [Bureau of Land Management] and Three Rivers Petroglyph site in New Mexico.
14	What do the descendant groups say about these images? Providing a space for them is important as well.

Jeffers Petroglyphs MN State Park (US)	
1	Our carvings were made in a pink ortho-quartzite, really tough stuff. As of yet we don't have a geophysical way of dating carvings so we rely on styles to get a rough idea of times and geographic connections. There are roughly 8,000 carvings on the site with probably around a 1000 or so covered by windblown soils.
2	The site is SUPER eclectic and has a crazy number of styles: -Mississippian era carvings linked to Southeastern farmers from around 1,000-1,400 CE -Columbia Plateau Tradition, probably within the last several thousand years -Paleo-Early Archaic Big Game imagery (Big Game Tradition) from the North Western Plains -Dene/Pueblo imagery from the Southwest. There is post 1300s stuff (maybe Dene) as well as earlier Pueblo stuff -A fair amount of Western Great Lakes/Eastern Plains "Ceremonial Style" imagery. This is from the last 1,000 years, probably the last 500 -A few images that seem to have roots in Fremont stuff out of Utah -Quite a few Atlats that, stylistically, seem to be coming out of Wisconsin and Illinois and date roughly 4-6,000 years ago -Quite a bit of "Hoofprint Tradition" imagery that is found across the country and seems to have been made more or less continuously for at east 1,000 years right up through European Contact Adding up all the stylistically distinctive stuff accounts for only a small fraction of the imagery. So, to sum up: lots of diversity, good educated guesses and no way to cross check the dates, so far...

	Also, the site is part of a larger complex of sacred sites spread out along this 23 mile long ridge of quartzite. There are other petroglyph sites, petroforms, vision quest pits, astronomical features, springs, waterfalls and on and on
3	No
4	For me, the real game-changer at the site has been viewing the interpretation of the site through a Native Cultural Lens. I think archaeologists generally leaned away from making official statements about the place because it kind of defies easy classification. So, we prioritize the Native Voice and have been gifted with opportunities to collaborate with Native Elders. Joe Williams was a Fluent First Speaker of Dakota. One of the basic things he told us is that the carvings are: Prayers, Teaching Tools and that the whole site is like an Encyclopedia, (Wikipedia for kids that have never seen encyclopedias). Thinking about the site as an encyclopedia helps to make sense of the diversity. It seems that people were collecting knowledge of different kinds. Different threads of this show up in oral histories and stories. What I like to point out to people is that for 100 years it was just chaotic pictures of stuff. Now, with a Native View it can be seen as a repository of collected knowledge.
5	<i>Not Answered</i>
6	<i>Not Answered</i>
7	We offer hourly tours during the summer months that cover a smattering of the images with the focus of giving a Native Cultural Perspective supported by archaeological and historical sources. We do special early morning tours on Saturdays in the summer with alternating focus on the Mississippian Era and the Late Paleo in the Midwest. We do school field trips in spring and fall that feature activity stations designed to give insight into Native lives
8	Jeffers as part of a sacred landscape: the dawning realization of the Jeffers site as a small part of the whole has really made us rethink things here. The site is no longer just Jeffers, it is the entire 23 mile long ridge. The individual pieces are connected. It's like we're finally seeing the whole thing.
9	So our carvings are about a 1/4 mile walk from the visitor center. The outcrop is on a nearly horizontal surface (7 deg slope). The trail to it is unpaved, crushed rock. We have several ways of helping visitors with mobility issues. We offer golf cart rides to and from the outcrop. A more recent addition are GRIT wheel chairs. These are wheel chairs with mountain bike tires that are WAY easier to get around in/push than a normal skinny tire chair. Totally worth it!
	Once at the outcrop, there are boardwalks for viewing panels as well as short segments of roped off trail where visitors can walk across the

	walk for closer viewing. If the rock were anything but quartzite we would offer no contact with it: no touching, no walking etc.
10	<i>Not Answered</i>
11	<i>Not Answered</i>
12	"You can totally cite me."
13	One thing I would suggest to you and whoever else is working on your megalith site is to: -take a closer look at sites in the area -particularly focus on extraordinary natural features: cliffs, waterfalls, caves, springs, other out-of-place boulders, anything eye-catching. If you can see it, so did they! So many things here are built on, or reference natural features, striations, shapes, discolorations, channels, basins. Be sky and star aware. We have natural features that align to solstice/equinox events with carvings added in appropriate places. So often it seems like we continually have to re-learn how to see. (you see with your brain, not your eyes)
14	Another aspect of such a huge site is protection. There are some really important sites on private land that we have no way of protecting. Do we tell land owners and hope they do the right thing? Do we not tell them and hope the sites aren't damaged? We don't have a crystal answer. What kind of antiquities laws does Italy have?

Hovenweep National Monument (US)	
1	We have both petroglyphs and pictographs at our site. They are on sandstone walls and in alcoves
2	Ancestral Puebloan, Ute, and Navajo
3	Most of it, yes
4	All of the Hopi, Zuni, and Pueblos along the Rio Grande are the direct descendants of the people who made the petroglyphs. It is something that we continually work on through Tribal consultation. Not every Tribe or Pueblo has the capacity for consultation for a variety of reasons beyond their control.

5	Not much - we don't actively encourage people to see any of it due to a desire to prevent vandalism. There is also an issue with non-Indigenous representatives of the federal government interpreting rock writing that we do not have a connection to.
6	Through interpretive programming and encouraging people to visit the cultural centers on the reservations for more information.
7	No, we try not to. The southwest is riddled with vandalism and graffiti. We encourage respectful visiting of all sites in the southwest.
8	That the Tribes and Pueblos have asked us to stop taking visitors to the rock writing/petroglyph sites and speaking on their behalf since it's not our culture.
9	We try to limit access.
10	We don't heavily address the petroglyphs.
11	They typically already are, so that's not too much of an issue
12	I would prefer not.
13	<i>Not Answered</i>
14	Most of the petroglyph sites in the U.S. are on federal lands, which creates a natural tension in talking about them with the public. People feel they have a "right" to them while the Tribes/Pueblos do not share that feeling and want to keep what's sacred off of the public's radar. Early settler/Mormon/Cowboy graffiti is less sensitive to share with the public.

Pepeshapissinikan Rock Archaeological Site (Canada)²⁵

1	Pepeshapissikan is an open-air, cliff side rock art site. The art is composed of 145 monochrome (red ochre pigments) finger-made paintings. They depict animals, humans, mythologic figures and geometric symbols. The cliff side drops in a lake which is in the hinterland of the North Shore region of Quebec. It's very remote. No road leads to it. The area has a rugged landscape consisting of rocky
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²⁵ The person who replied for this site is not an expert of the site specifically, but is state curator of archaeological collections for the province of Quebec and stated in their email that they would try their best to answer my questions.

	hills, boreal forest, mossy bogs, lakes, creeks, and white watered rivers. Apart from some lumber trails and fishing lodges, it's pristine wilderness. For pictures and more information: https://www.patrimoine-culturel.gouv.qc.ca/rpcq/detail.do?methode=consulter&id=93286&type=bien https://imagesdanslapierre.mcg.org/explorer/nisula/
2	It was painted by indigenous hunter-gatherers at least 2000 years ago. It may have had a religious purpose. Sites like these are rare in Quebec but are numerous in northern Ontario and Manitoba.
3	In general, yes, by C14 dating. But research is ongoing to date specific paintings and layers of it, as some may have been restored over the centuries by indigenous individuals. For more information on dating research of Quebec's rock art, you may contact Dr. Adeline Bonneau, professor at Sherbrooke University.
4	The area is part of the ancestral territory of the Innu First Nation. The nearest indigenous village, Betsiamites, participates in the safeguard of the site and use it for spiritual and educational purposes.
5	The site is not open to the public. Other rock art sites in Quebec which are closer to towns and more accessible have been subject to vandalism. Indigenous communities may some day offer visits to tourists and citizens, which would be a blessing, but it is not a current practice. Access to information about the site is mainly conveyed by web sites. This one was created by the Quebec provincial ethnologic museum, in partnership with the federal government : https://imagesdanslapierre.mcg.org/explorer/nisula/
6	Research and digital valorization of rock art sites are made in close collaboration with local indigenous communities.
7	No
8	<i>Not Answered</i>
9	<i>Not Answered</i>
10	<i>Not Answered</i>
11	<i>Not Answered</i>

12	Yes you may.
13	I think that Rock Art sites in Portugal (northern, but also Alentejo), northern Spain, the American South-West, Australia, and South-Africa could be of interest. In Alentejo, the Escoural Cave near Evora is open to the public and as an interpretative centre. Its beautiful paintings date to the Neolithic and Chalcolithic era.
14	<i>Not Answered</i>

Oceanian Sites

Brisbane Water National Park (Australia)	
1	Rock engravings, Hawkesbury Sandstone
2	<i>Not Answered</i>
3	See attached document, but I don't believe so, it is hard to date the engravings, as the degradation / erosion of sandstone differs so much, but there is evidence in shelter with deposits dating back 5000 years nearby.
4	European occupation, decimated the local populations, Smallpox wiped out 70-80% population, then land ownership disagreements which often led to retaliation on both sides, rifles versus spears, assimilation programs etc Not much of the knowledge from pre-European times would not of made it to present day, however there are some that have stories of the site, however it is unknown how factual this knowledge is and whether it has been interpreted from knowledge about other sites and or tribal groups further afield. There are a few that claim to be Traditional Owners however nothing has been proven, there is a lot of politics involved.
5	See attached interps, however currently reviewing information, the Local Aboriginal Land Council and ourselves are in discussions to prepare new educational material on site, with QR codes plus static displays, however there are disagreements as to what information should be displayed.

6	This is interesting, here we have Aboriginal engravings thousands of year old, one of thousands of sites around the region. Note: this site is well known locally and it was chosen as a destination to educate people, to draw people attention to this site away from other sites which are more significant “Feast Site”, located across the road, which is well hidden, no walking tracks and surrounded by bush. Lack of visitation protects it from vandalism, graffiti etc though it is still prone to the elements and potential damage by bushfires. Anyway some people may visit Bulgandry by themselves (self-guided), whilst others some on educational guided tours run by the Local Aboriginal Land Council or by approved Ecotourism Aboriginal Guides. Just down the road there is a controversial engraving site called the Kariong Glyphs, these seem to get more attention than the Aboriginal engravings, which is funny because a Ranger caught someone engraving some of these in 1981, but there are people believe they are real or at least date back to around 1950 or earlier. We believe they are no older than 1977. We find it odd that more people are attracted to here, than Bulgandry.
7	Answered some of this above, but NPWS have done educational tours actively in the past, however it is more so left to educational tours done by the Local Aboriginal Land Council ore Ecotourism approved guides. Images of some of the engravings do get depicted by the Regional tourism authority, so promotion of the site regionally is prominent.
8	Whilst myself, NPWS and the local Aboriginal Land Council are still working on what information is provided at the site, it is agreed that there be QR codes and also static displays, however I know I wanted to have something educating people about the conflict , disruption of the knowledge being passed down due to disease, assimilation programs, frontier wars.
9	Natural beauty of the site, is fairly well preserved, we haven’t modified the natural landscape to a great degree. The boardwalk was erected to protect the engravings, though the timber boardwalk is prone to fire damage which could potentially burn and crack the rock the engravings are on. Currently we are investigating whether we change to boardwalk to a metal structure.
10	Currently we have wheelchair access via the boardwalk. As mentioned we are reviewing the educational display signs that we provide at present. Often for Aboriginal elders we arrange for closer access by way of a service fire trail nearby so that they don’t have to walk as far.
11	Attracting more attention, can potentially damage the site due to graffiti etc but there is also the benefits of the tourism dollar but is it worth it. Could make the site part of a Early Man tourism trail, I would love to visit the site you have there (will you pay for me 😊). NPWS do not usually promote sites due to management concerns, it is only the ones which are pretty well known, that we have to

	implement protective measures, in places there are old metal barriers (1970's) across caves to protect art.
12	Yes certainly
13	<i>Not Answered</i>
14	Monitoring of sites for damage, video surveillance and compliance, really need to see the person doing the act and also seeing the same person get back into their car (see their number plate).

Appendix E

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This is an example of what accessible sign could look like using all of the accessibility features discussed in Section 6, as well as models of what this sign could look like on site.

Figure A



Figure C

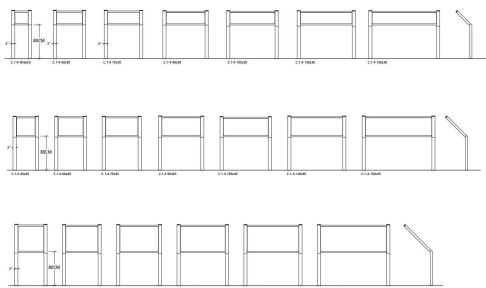
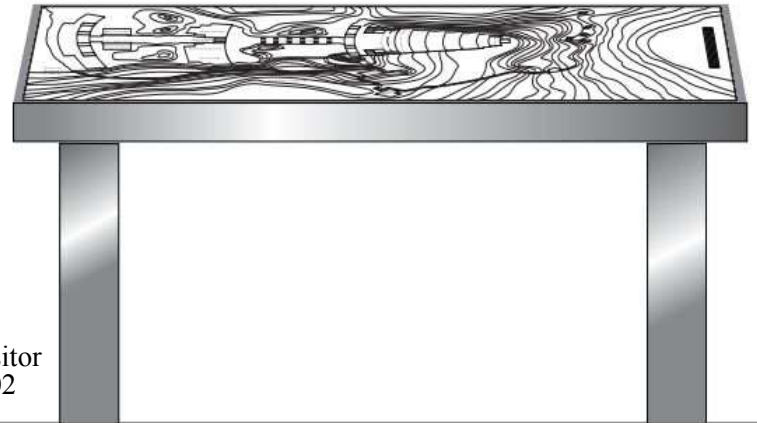


Figure B



Figures B and C are from “NPS *UniGuide* Standards: Identification, Wayfinding and Visitor Information for National Parks” from 01/06/02 (B: section 3.7, page 10) (C: section 4.2, page 96)



Figure D Examples of different types of accessible signs using figure A

Figure E Infographic about the proposed fonts to use for informational signage.

Proposed Signage Font

**PARCO ARCHEOLOGICO
NAZIONALE DEI MASSI DI
CEMMO**

A Cemmo, in prossimità del masso Cemmo 20, si osservano pratiche rituali che hanno attinenza col culto dei morti e la celebrazione degli antenati.

<u>Heading/Title Font:</u> LITERATA (specifically all caps & bold)	<u>Body Text Font:</u> Atkinson Hyperlegible
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Figure G

Expanded version of the colour palette for Signs at Cemmo that includes shades

PROPOSED COLOUR PALETTE for signs as <i>Massi di Cemmo</i>						
Colour	Hexadecimal Colour Code	Given Name	Apperance to forms of Colorblindness			
			Protanopia (reduced sensitivity to Red Light)	Deutanopia (reduced sensitivity to Green Light)	Tritanopia (reduced sensitivity to Blue Light)	Achromatopsia (monochromy or complete lack of colour)
	#1C2669	Dark Blue				
	#2C3EB7	Blue				
	#435CFF	Vivid Blue				
	#904000	Brown				
	#c47332	Grey Orange				
	#DAA77D	Pale Orange				
	#2b2b2b	Dark Grey				
	#737373	Grey				
	#E2E2E2	Light Grey				
	#ffffff	White				

Figure F Expanded infographic about what fonts to choose and why.

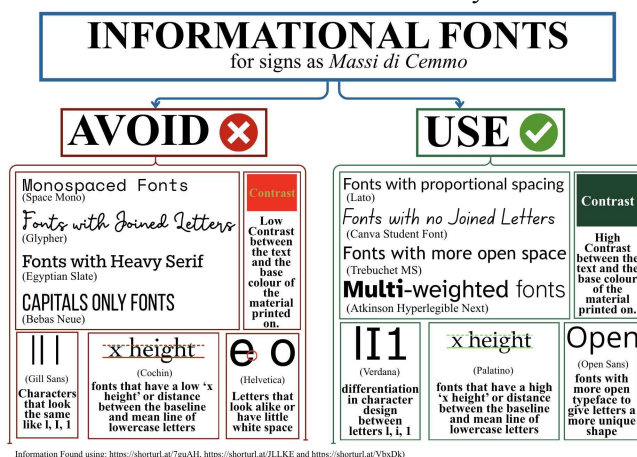
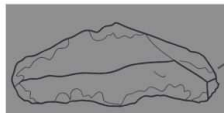
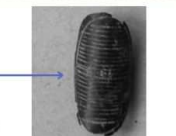
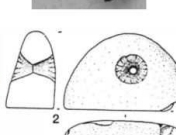


Figure H Visual indicators of each time period with the Archaeological material they are based on.

 Mesolithic Period One of several stone tools found near Cemmo 1	 4
 Neolithic Period Sketch based on description sherds found in front of Cemmo 20	 Cemmo 6
 Early Copper Age	 Cemmo 3
 Middle Copper Age	
 Late Copper Age	
 Bronze Age Bronze Ring found on the layer above Cemmo 20	
 Iron Age Loom weight found during 1994 excavation	
 Roman Period Based on an impression in the bas relief to the right	

Appendix F

Proposed signage and models to Highlight the Stelae Pit

Figure A

The locations of signs are marked by light pink rectangles, and the model (see Figure B) is identified by the darker pink square. All of these markers are placed on a map from QGIS, specifically the Close Fly 2021 version.

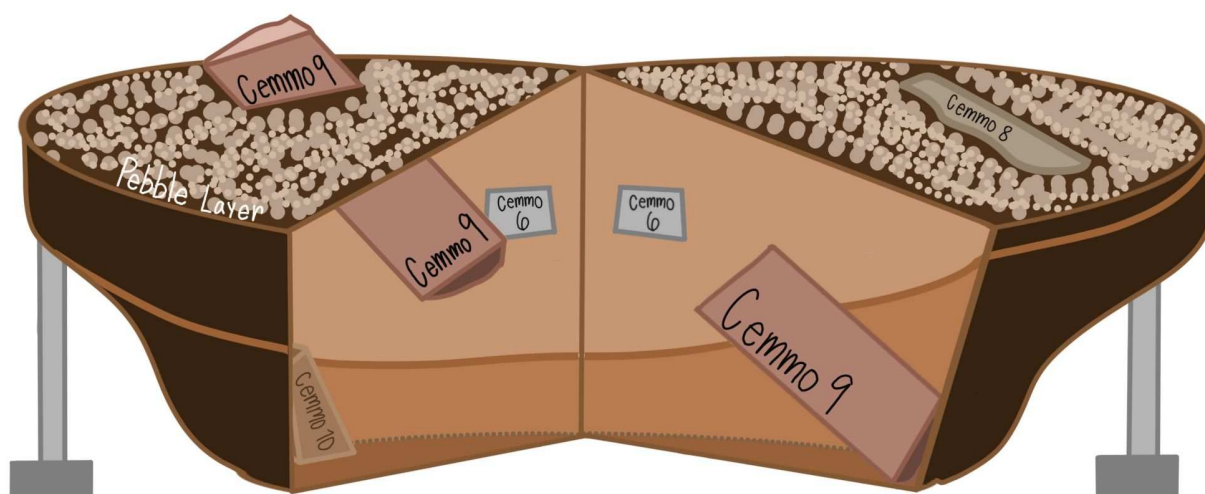


Figure B

This image is a drawn example of what a 3D model of the Stelae Pit could look like. It is based on Excavation drawings and maps, including the difference between the layers of the stratigraphy as well as the positioning of the stelae themselves within the pit. The size and shape are also based on measurements provided by the *Soprintendenza Archeologica Della Lombardia: Notiziario 1999-2000*, which highlight how large the diameter of the mouth of the pit is versus that of the bottom. This difference would require specific intervention to maintain safety as shown with the grey metal poles holding up the top of the pit.

Figure C

This is the Stelae pit with different levels of modification. The top picture shows the Stelae Pit as it is today (Picture taken 10 April, 2026), the middle picture shows the Stelae Pit with the addition of the proposed pebble bottom and replicas of Cemmo 9 and 10, finally the bottom picture add signage to the refined pit from the middle picture. All pictures were taken and modified by Madeline Lamwers.

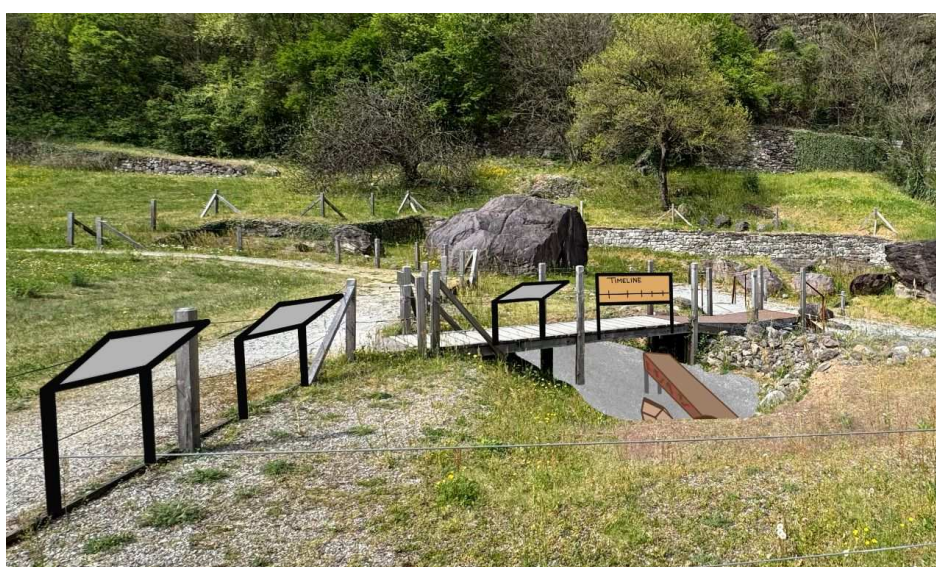
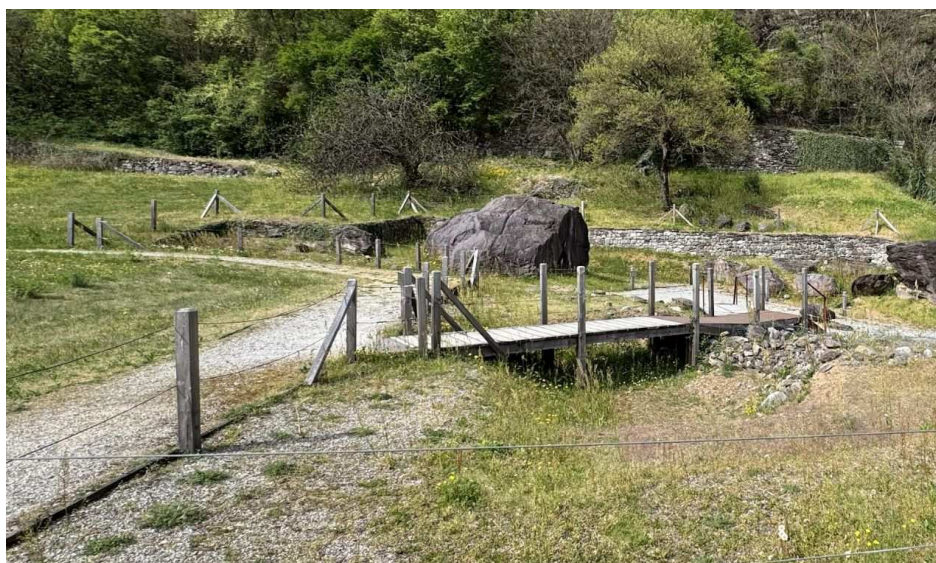
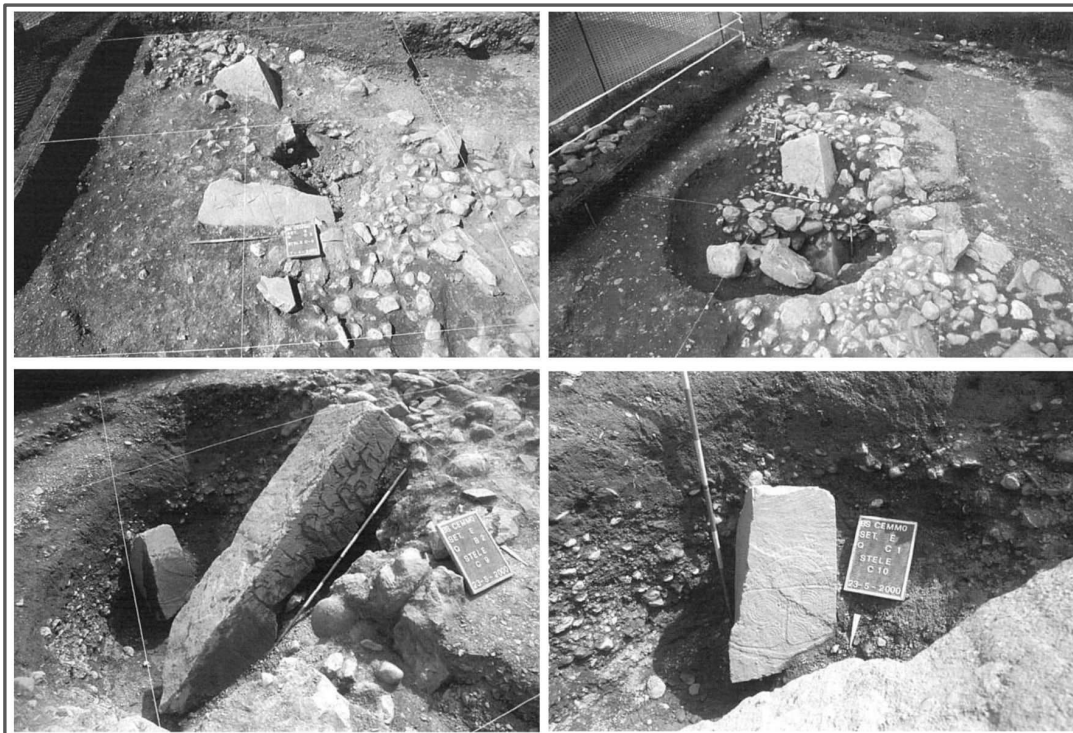
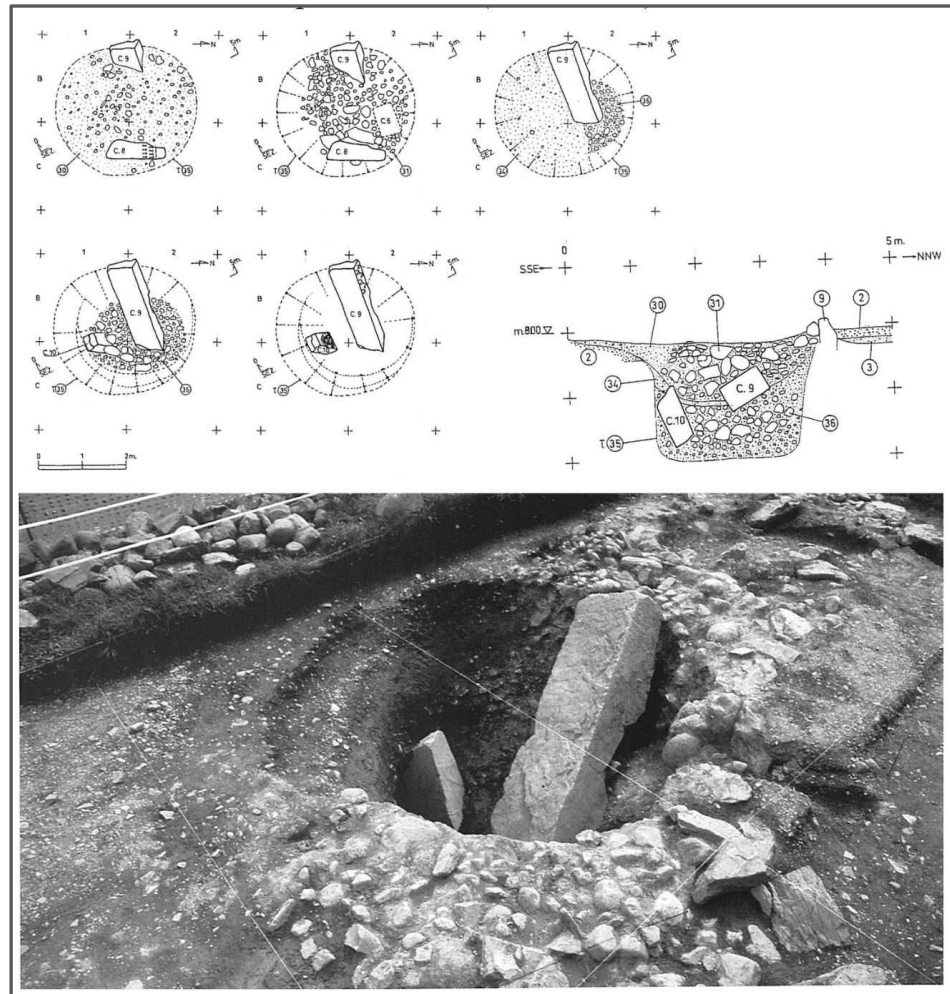


Figure D These are some of the suggestions for images to include on educational signage, as well as in which publication they appeared.

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Images from "CAPO DI PONTE (BS), Frazione Cemmo, Pian delle Greppe: Santuario preistorico dei Massi di Cemmo." *Soprintendenza Archeologica Della Lombardia: Notiziario 1999-2000*



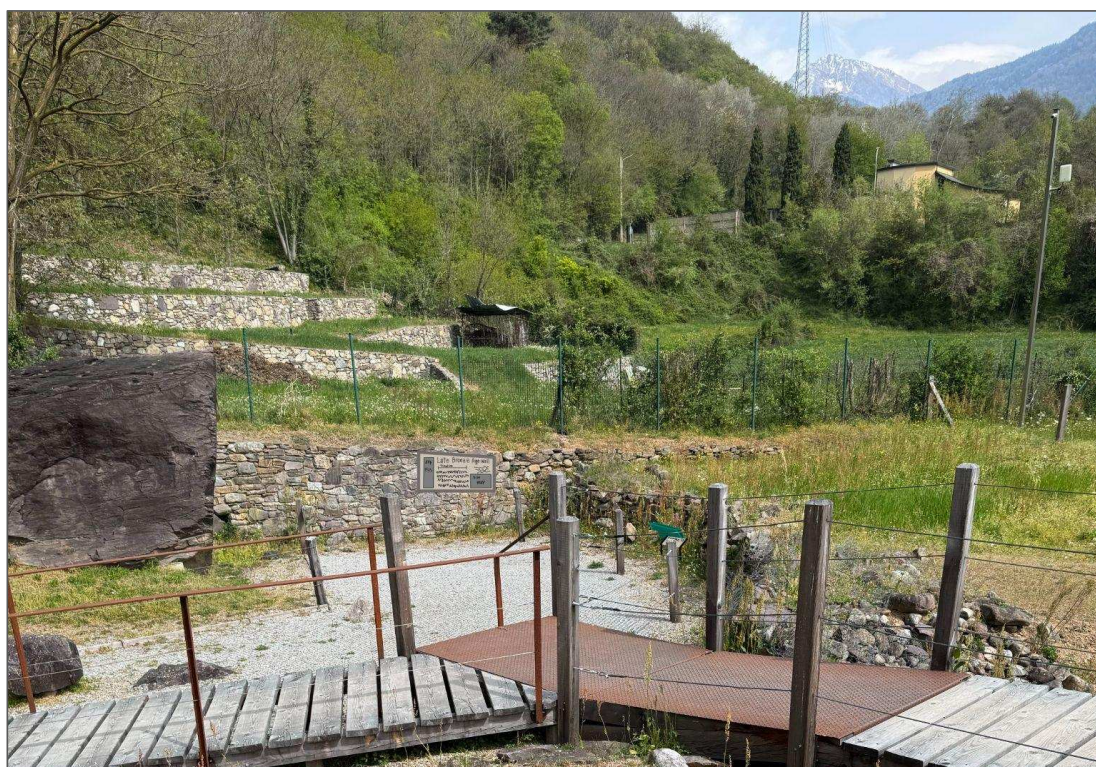
Images from *Rivista di scienze preistoriche*: fondata da Paolo Graziosi pages 245 and 247

Appendix G Proposed changes to Uplift the Bronze Age wall

Figure A A before and after of the same image that identifies the locations of informational signage within the sanctuary.



Sanctuary prior to suggested interventions



Sanctuary with artistic renderings of suggested interventions

Figure B

Teal Squares on this map taken from QGIS (fly over 2021) represent where signs would be located in the actual park, though their size would be dependent on their location.



Images from "The sanctuary of Cemmo: a tale of two monuments," in *Preistoria Alpina* on Page 11

**Figure C**

Images to include on information signage that identifies where Stelae were found within the wall and where they were published. Getting an aerial drone picture would also be very beneficial as you could then place markers of where stelae were found on a more indepth picture of wall as it exists today.



Images from "Cemmo: il sito storico della scoperta dell'arte rupestre e le novità delle ricerche in corso" located on the Old DrM-Lom Website



Figure A

Above is an example of what the ‘Home’ page of an overarching website could look like. It specifically highlights the different tabs, clearly provides Accessibility Resources, and uses the colour and text styles highlighted in Section 6.1a of this Thesis.



Figure b

Above is an example of what the Further Resources page could look like, it includes different clickable archives, a submission section and once again uses the colour and text styles highlighted in Section 6.1a of this Thesis.

Appendix I

Examples of 'History Trunks' related to *Massi di Cemmo* and what they contain

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History Trunk: Introduction to Archaeology

This Primary Materials collection is best for *Secunda* to *Quinta* as it involves more complex reading and comprehension based discussion



Figure A: storage container used to hold teaching materials based on a Total Station carrying case

Figure B: Tools of excavation (Trowel, Work Gloves and Brush)



Figure C: Measurement tools for photos (Compass, North Arrow and Checkered Photo Scales)

Figure D: Old Digital Camera and SD Card Reader



Figure G: USB and Zip Pocket with paper materials like Excavation photographs and *Soprintendenza Archeologica Della Lombardia: Notiziario*



Figure E: Letter Board and Letters for giving information about the 'site'

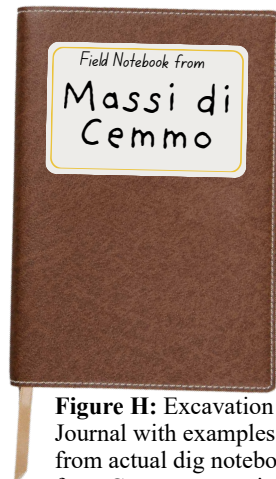


Figure H: Excavation Journal with examples from actual dig notebooks from Cemmo campaigns over the years

History Trunk: Prehistory in the Southern Alps (Mesolithic through the Copper Age)

This Primary Materials collection is best for *Prima* to *Quinta* as it involves more reflection based discussion (that can be written or oral) and more visual and hands on forms of interacting with the objects.



Figure B: Replica Stone Tools (Burin, Blade, Arrowhead, and Scraper)

Figure C: Small Piece of Animal Skin



Figure A: storage container used to hold teaching materials based on Ötzi the Ice man's birch bark containers



Figure E: Replicas of Cemmo 5 (full sized) and Cemmo 11/19 (miniaturized)



Figure D: Replica of Square Mouthed Vase Culture Pottery



Figure F: Flashlight for Stelae Experiment

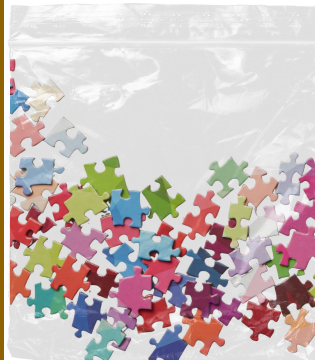


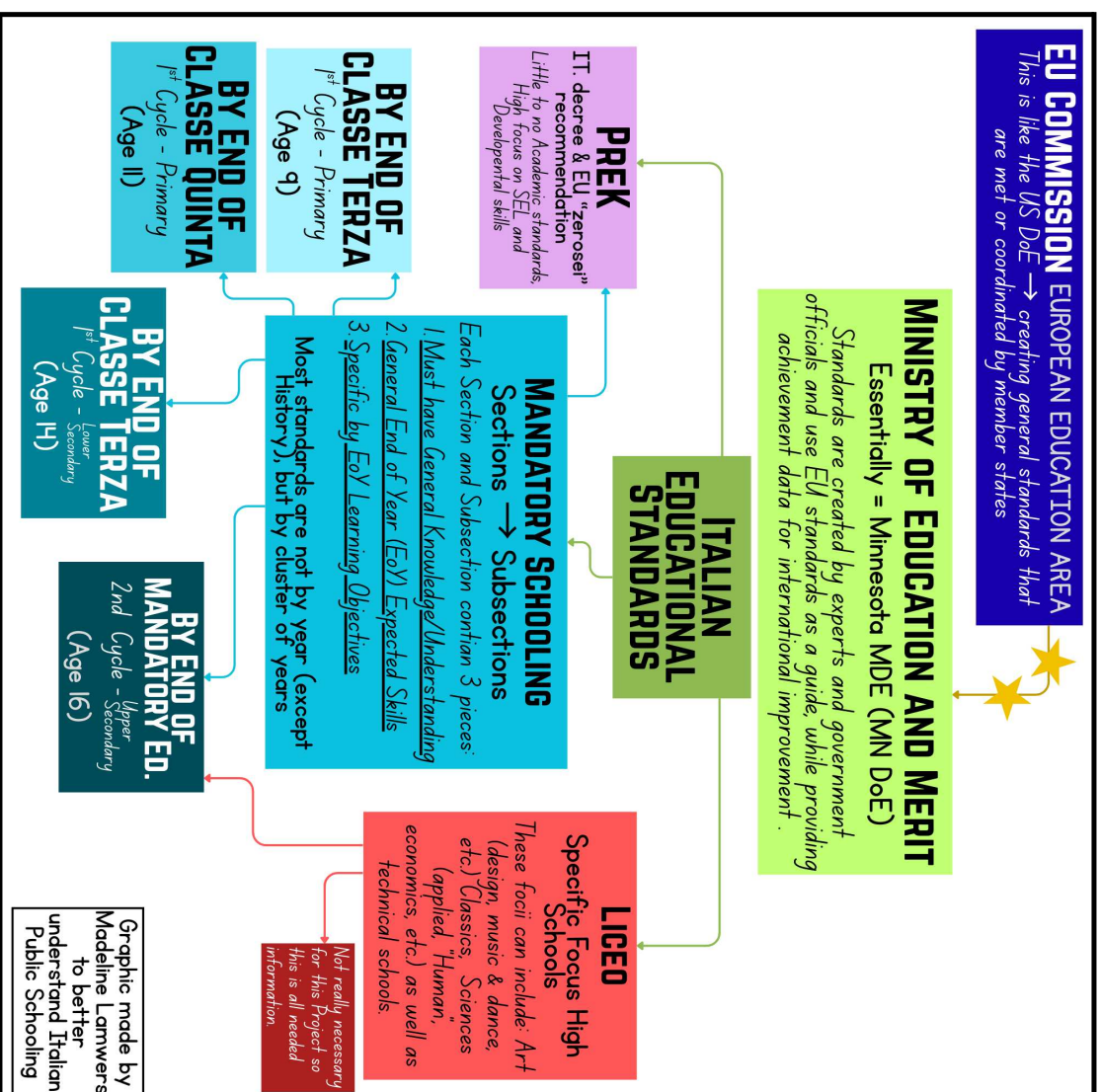
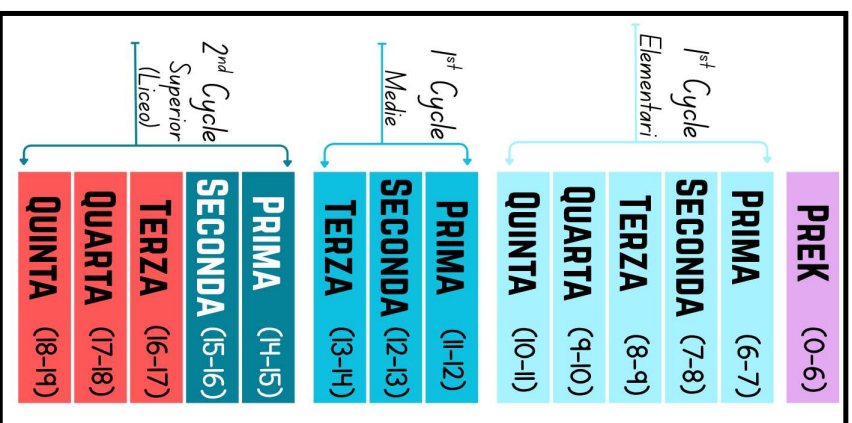
Figure G: Representation of Timeline Puzzle



Figure H: USB and Zip Pocket with paper materials like tracings of Cemmo 1 & 2

Appendix J:

How Educational Standards work in Italy for Mandatory Schooling



Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
Functional Literacy Skills	• Create, express and interpret concepts, feelings, facts and opinions in both oral and written form (listening comprehension, oral expression, reading comprehension and writing expression) • Understand the key points of a complex discussion, whether on concrete or abstract topics, and integrate them with arguments based on what is already known. • Interact appropriately and creatively using visual, audio, and digital materials in a variety of cultural and social contexts, such as education and training, work, home, and leisure.
By end of Primary (1st Cycle - Primary)	
1. Decode and understand key messages: a. identify crucial information in different types of communication: oral (explanations, stories, dialogues), written (instructions, short informational texts, simple stories, signs), and non-verbal (understanding body language, facial expressions). 2. Communicate clearly and effectively: a. express your ideas, experiences, and questions orally in a logical and coherent way, adapting your language to the context and the interlocutor. 3. Summarize the content of written texts: a. identify the main points of a text and reorganize them into a set of information capable of conveying the meaning of the whole 4. Produce meaningful texts:	

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	a. write short texts (descriptions, narratives, messages) to communicate concepts, feelings, facts, and personal opinions, respecting basic structure and linguistic correctness. 5. Interact with different media: a. consciously use images, videos, audio, and basic digital tools to actively participate in learning activities and express oneself creatively.
By End of Media (1st Cycle - Lower Secondary)	1. Master reading and analysis strategies: a. apply different reading techniques (exploratory, analytical, selective) to understand complex texts, identifying the communicative purpose, the audience, relevant information, and the linguistic register. 2. Interpret meaning in context: a. analyze the context of a message (written, oral, visual) to derive its implicit meaning, grasping nuances and communicative intentions. 3. Think flexibly: a. Examine a topic from multiple perspectives, explore different resolution strategies, and argue your positions with reasoned reasoning. 4. Process complex information: a. connect information from different sources, including digital materials that are not immediately visible, to arrive at a broad and detailed understanding of the topic being studied. 5. Communicate effectively and consciously: a. organize your vocabulary and quickly produce complex oral and written texts, using precise, rich and appropriate language and context.

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
Multilingual Competence	• Use English at a basic level, both orally and in writing (listening and reading comprehension, written production, and spoken production/interaction) in simple everyday situations related to areas of most immediate relevance and on familiar and routine topics, including study content from other disciplines. • Recognize the most obvious similarities and differences between the languages and cultures being studied. • Use a second community language at an elementary level, both orally and in writing (listening and reading comprehension, written production, and spoken production/interaction) in simple everyday situations in areas of immediate need or on very familiar topics
Mathematical/Scientific/Tech. Competence	• Use mathematical and scientific-technological knowledge to analyze real-world data and facts and to verify the reliability of quantitative analyses proposed by others. • Use logical-scientific thinking to address problems and situations based on certain elements. • Be aware of the limitations of statements that address complex situations.
Digital Competence	• Use digital technologies consciously and responsibly to research, produce, and process data and information. • Interact with others knowing how to choose the appropriate digital means of communication for a given context

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
Personal and SEL Skills	• Taking care and respecting oneself, others, public and private assets, and the environment is a prerequisite for a healthy and balanced lifestyle. • Organize new knowledge by planning how to learn it with an attitude that is functional to the objective of interest. • Complete the work started, alone or together with others.
By end of Primary (1st Cycle - Primary)	
1. Recognize the importance of a healthy lifestyle: a. learn to understand your own and others' emotions, build a positive b. relationship with your body, and acquire healthy eating habits. 2. Plan and organize your work: a. organize simple personal study activities, b. learning to manage your time in relation to deadlines and basic objectives. 3. Reflect on your learning: a. Reflect on your learning strategies, recognizing what helps you learn best and what difficulties you encounter. 4. Completing a task: a. Commit and persist in completing a task, even when faced with small difficulties, b. learning to manage frustration. 5. Adopt environmentally friendly behaviors: a. understand the importance of respecting nature and practice proactive behaviors to protect it in your daily life. 6. Collaborate positively with others:	

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)
a. work together constructively, respecting different roles, b. expressing one's ideas and listening to those of others to achieve a common goal.
By End of Medie (1st Cycle - Lower Secondary)
1. Adopt a healthy lifestyle: a. Learn to manage your emotions in relationships with others b. maintain a positive relationship with your body, including through healthy eating habits 2. Make judgments based on personal values and experiences: a. express reasoned judgments b. connecting one's personal experiences to ethical and social values c. Develop critical thinking and a civic conscience. 3. Express creativity and original thinking: a. develop ideas in a personal and original way and communicate them orally and in writing including through original and unconventional methods b. Learn to recognize and appreciate irony and learn how to use it in communications with others. 4. Understanding and valuing the environment and the local area: a. recognizing the value of the environment and the resources of the area in which one lives b. developing a sense of belonging and the desire to contribute to Natural resources' protection and enhancement 5. Self-assess your performance in a specific and constructive way: a. provide detailed and reasoned self-assessments of your performance in different areas, identifying strengths and areas for improvement and proposing strategies for progress 6. Plan and manage personal and group projects:

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
a. plan, organize and complete individual and group projects, b. Setting goals, managing time, collaborating effectively and evaluating the process and results.	
Citizenship Skills	• Understanding the need for civil, peaceful, and supportive coexistence to build the common good and acting consistently. • Express your personal opinions and feelings while respecting others. • Respect the institutional authorities recognized by the Constitution. • Participate in civic and social life in every possible way, thanks to an understanding of basic social, economic, legal, and political structures and concepts. • Recognize and respect different identities, cultural and religious traditions in a spirit of dialogue. • Adopt respectful attitudes towards the environment and common goods based on the principles of sustainability and protection.
By end of Primary (1st Cycle - Primary)	
1. Participate in discussions constructively: - intervene in a group discussion respecting times and speaking turns, actively listening to others - formulate relevant and respectful interventions. 2. Build positive relationships based on respect: - Express respect in interpersonal relationships - recognizing the importance of empathy and kindness in interactions 3. Understand and respect one's own and others' rights and duties: - recognize one's own fundamental rights and duties	

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	b. the importance of respecting the rights of others in the immediate school and social context. 4. Respect the institutional authorities recognized by the Constitution: a. Respect the authorities defined by the Constitution, which perform public functions and govern the State 5. Be open to different ideas and points of view: a. Listen to and consider the ideas and points of view of others even when different from your own b. Develop an open and tolerant mindset 6. Respect public and private rules and assets: a. understand the importance of rules for peaceful coexistence and commit to respecting them, showing care for public and private spaces and assets 7. Recognize and appreciate diversity: a. know and respect the different identities present in the own environment.
By End of Medie (1st Cycle - Lower Secondary)	1. Actively value diverse opinions: a. listen to, understand, and value the opinions of others, even when they differ from your own, b. recognizing the contribution of each perspective to the debate. 2. Defend and promote one's own and others' rights and duties: a. know and affirm one's own rights in an assertive and respectful manner of the rights and needs of others b. show awareness of one's duties. 3. Respect the institutional authorities recognized by the Constitution:

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
	a. Respect constitutional bodies such as Parliament, the President of the Republic, the Constitutional Court, and the judiciary 4. Respect public and private rules and assets: a. understand the importance of rules for peaceful coexistence and commit to respecting them b. showing care for public and private spaces and assets 5. Welcome and use criticism constructively: a. accept criticism and points of view different from your own responsibly and actively, using them as opportunities for reflection and personal improvement. 6. Recognize and value social and cultural diversity: a. understand the intrinsic value of social and cultural diversity within the classroom and in society b. actively promoting integration, intercultural dialogue, and mutual respect 7. Understand the basics of social, economic, and political structures: a. Understand the fundamental concepts relating to the social, economic, and political structures of one's context b. develop an initial awareness of the complexity of civil life 8. Adopt sustainable and responsible behaviors towards the environment and common goods: a. act in an aware and responsible manner towards one's environment and common goods, based on the principles of sustainability and protection. 9. Actively participate in responsible and supportive citizenship initiatives: a. actively participate in responsible and supportive citizenship initiatives within your school and local context b. propose solutions to common problems and devising service initiatives, in compliance with constitutional principles

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
Entrepreneurial Skills	• Demonstrate initiative, produce creative ideas and projects. • Take responsibility, demonstrate commitment and hard work. • Reflect on yourself and deal with new and unexpected challenges. • Make your choices consciously
By end of Primary (1st Cycle - Primary)	
1. Show curiosity and openness to new experiences: a. demonstrate curiosity and interest in tackling new activities and educational proposals, with an open mind to new learning. 2. Take responsibility, demonstrate commitment and industriousness: a. be aware of your actions and the consequences b. commit yourself thoroughly and work with dedication 3. Face failures with resilience: a. learn to react to mistakes and failures by viewing them as learning opportunities, quickly resuming activities and striving to improve 4. Collaborate to find innovative solutions: a. Work together with classmates to seek new strategies and creative approaches to problem-solving valuing everyone's contributions. 5. Recognize and enhance your strengths and weaknesses: a. identify and reflect on your strengths and weaknesses in relation to different activities b. develop an initial self-awareness 6. Propose simple ideas and initiatives: a. express your ideas and propose simple initiatives within the school context, thus developing a spirit	

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
of initiative	
By End of Medie (1st Cycle - Lower Secondary)	
1. Act autonomously and responsibly to achieve goals: a. operate independently, planning one's actions, taking responsibility for one's work b. persevering in achieving set goals. 2. Take responsibility, demonstrate commitment and industriousness: a. be proactive and dedicated to fulfilling commitments by carrying out your duties efficiently 3. Assess the innovative potential of new ideas: a. analyze new ideas, identifying their innovative potential, feasibility and possible developments 4. Adapt flexibly to unexpected events: a. identify and apply appropriate strategies to flexibly and constructively address unexpected situations and changes, demonstrating the ability to adapt 5. Collaborate and cooperate to turn ideas into action: a. Work collaboratively and cooperatively with others to develop ideas b. plan concrete actions, and achieve tangible results 6. Reflect on your experiences and guide your choices: a. reflect on your experiences, analyzing successes and failures, to develop greater self-awareness and guide your future choices more consciously	
Cultural Awareness & Expression Skills	• To understand the increasingly broader expressions (language, heritage, traditions) – local, regional, national, • European and global – of one's own culture. • Understanding the mutual influence between cultures. • Appreciate the diversity of ways of communicating ideas – written texts

Required Skills for End of First Cycle Education (to be able to fully exercise Citizenship nationally and globally)	
	(printed and digital), theatre, film, dance, games, art and design, music, rituals, architecture and their hybrid forms. To develop an awareness of personal identity and of historical, cultural, and landscape heritage
By end of Primary (1st Cycle - Primary)	
Explore the elements of one's cultural identity: - recognize and describe some fundamental elements of one's cultural identity, such as language, family and community traditions - Recognize some aspects of the cultural heritage of the area in which one lives Organize personal and collective events into simple timelines: - Place personal events and simple historical facts into linear timelines - using tools like basic timelines Recognize different forms of cultural expression: - expression, such as theater, music, film, dance, and simple works of art in their context Place basic cultural elements in space and time: - locate significant environments, events, cultural phenomena, and simple works of art in geographical space and historical time. Creatively express one's cultural identity: - express one's cultural identity through various forms (language, drawing, simple representations) - Share one's culture with others in a climate of respect. Produce simple artistic and musical works: - express yourself through simple practical activities of artistic production (drawing, painting, basic sculpture) and musical production (singing, use of simple rhythmic instruments) - experimenting with different materials and techniques	

Required Skills for End of First Cycle Education
(to be able to fully exercise Citizenship nationally and globally)

By End of Medie (1st Cycle - Lower Secondary)

- 1. Recognize and appreciate different forms of cultural expression:**
 - a. Recognize multiple forms of cultural expression and appreciate their intrinsic value as manifestations of human ingenuity understanding the historical and social context of their production.
- 2. Understand mutual influence and respect different cultural identities:**
 - a. Understand the mutual influence between cultures
 - b. recognize and respect their diversity within the context of a fruitful dialogue
- 3. Analyze significant elements of the past and present:**
 - a. Identify and analyze significant elements of the past of one's living environment and relate them to aspects of the present
 - b. Develop a historical and cultural awareness
- 4. Use diverse sources to acquire cultural information:**
 - a. Extract information and knowledge about aspects of the past and present from various sources (texts, images, testimonies, digital media) to deepen your understanding of your own culture.
- 5. Analyze and interpret different cultural representations:**
 - a. analyze and interpret various types of representations (theatrical, musical, cinematic, artistic), grasping their essential cultural meanings and communicative intentions.
- 6. Consolidate awareness of one's own identity in the context of diversity:**
 - a. develop awareness of one's personal identity and of one's historical, cultural and landscape of one's own country within the cultural diversities present in the world
- 7. Create personal and collaborative artistic and musical productions:**
 - a. design and create artistic productions (e.g., graphic, plastic, and multimedia works) and musical productions (e.g., instrumental and vocal performances, simple improvisations, and compositions) both individually and in groups, using various techniques and expressive languages.

History

(HIS) (Historical Geography: HiGe; Civics: Civ; Academic Skills: AcSk)

Summary of Concept:

History as a concept in Italy is very literal. There is a hard focus on the written word as the superior form of ways in which to describe past events. This focus also continually identifies ‘the West’ as the birthplace of history,

“particular, thanks also to history and politics, the peoples - first those of the West and then those of the entire world - have been able to become aware of themselves, accustomed to considering the their existence connected to that of millions of their fellow men, they became aware of what united them – for example a common language or past, a common social condition – and thus develop the will to acquire a broader and more organic prominence.”

Statements like these and several others identify that history is a western construction, something very different from the way in which we are taught to teach history in the US. Another goal of history education is developing critical thinking in connecting historical events to current issues, something that boosts news literacy and global understanding. There is also a focus on the interconnectedness of history, which makes sense when taking into context Italy’s position as a member state of the EU and how historical borders in Europe changed many times and not infrequently. Within this framework, Italian History education appears to be made up of a few specific subcategories beyond just general history:

- HISTORICAL GEOGRAPHY, where students are able to identify their location specially and temporally.
 - Includes: being able to identify and describe their physical environment as well as being able to determine the rich past of a location/site.
- CIVICS, where students identify their roles as well-informed citizens in a globalized world.
 - Includes: Basic knowledge of the Italian government and foundational documents, exploration of multiculturalism, understanding that the past and the present are intimately connected
- ACADEMIC SKILLS, where students develop necessary research and presentation skills using a historical context
 - Includes: Clear communication of ideas using facts (orally and written), identification of different types of sourcing, using contextual vocab correctly

History

(HIS) (Historical Geography: HiGe; Civics: Civ; Academic Skills: AcSk)

Topics to Be Covered

Prima-Seconda:

- My family.
- My city, town, neighborhood: the most important places
 - (public offices, places of art, monuments, squares and their meaning).
- Characters and events taken from the Bible, Iliad, Odyssey, Aeneid
 - (in a very simplified form) to understand the roots of Western culture.
- Basic Italian Geography:
 - its geographical representation to search on the map for places known or heard by the students.
 - Italy: the sea, the mountains, the countryside, in the students' experience.
- Who governs your municipality and what they decide.
 - A brief account of Italy's birth: from many regional states to a free and independent nation.
- Mammeli and the national anthem (explanation of the contents), poems and songs of the Risorgimento.
 - Stories drawn from the events of the Risorgimento and the Resistance, chosen by the teachers and linked to local references and the children's experience (e.g. content: Small Lombard lookout, the martyrs of Belfiore, the 5 Days of Milan, Anita Garibaldi, Salvo d'Acquisto, other protagonists of heroism and civil virtue in the Resistance).
- Being citizens: basic notions on the meaning of the Constitution, rights, elections and taxes.

Terza:

- The appearance of man on earth.
 - The initial stages of civilization: from the Stone Age to the Neolithic revolution.
- The birth and importance of writing.
 - Various types of writing
- Ancient civilizations in the Mediterranean and the Near East.

Quarta:

History

(HIS) (Historical Geography: HiGe; Civics: Civ; Academic Skills: AcSk)

- The polis: Athens and Sparta (democracy and oligarchy; citizens and excluded).
 - The clash with the Persian Empire (a confrontation between East and West, e.g. through reading, simplified, of passages from Herodotus and Aeschylus' Persians).
- The Greeks in Italy.
- The Italic peoples; the origins of Rome.
- Rome in Italy.
 - The unification of the Mediterranean world under Alexander the Great.
 - Systems of government in Rome (monarchy, republic); social struggles.
 - The Romanization of the Peninsula: the “social war” and the granting of citizenship.
 - The religion of the Greek and Roman world.
 - The Roman family: the father, the children, the women.
 - Economy and society: free and slave, citizens and provincials.

Quinta and Beyond:

- Rome Continued
 - The crisis of the Republic (Marius and Sulla).
 - The legacy of Rome: language and law; urbanization and territorial structures.
 - The empire from Octavian to Constantine.
 - The revolution of Christianity: a universalist religion.
 - The crisis of the empire and the migrations of the Germanic peoples.
 - Collapse of the Western Roman Empire and “Roman-barbarian” kingdoms.
- Monasticism and libraries.
- Constantinople and the Eastern Roman Empire.
 - Justinian's codification and the roots of modern legal civilization.
- The Islamic expansion.

History Standards

(Expected Skills/Specific Learning Objectives by End of Grade 3 (Elementari Terza))				
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 3 Students will....	
3.HIS.1	Historical knowledge	Knowing the main historical facts, processes and characters, understanding their role and significance in the historical context.	● Know Important historical events/epochs of Italy ○ Including Dates and important historical figures ● Be able to place specific historical figures in their correct context and explain their significance	
3.HIS.2	Understand and analyze the main historical facts and events	Highlight the internal connections between the main facts. Indicate the specificities and differences of the main historical facts with respect to current European and world events.	● Be able to identify and recognize connections between differing historical events ● Compare and Contrast historical events with current world events	
3.HIS.3	Gain an understanding of the depth of historical time	Understand the beginnings of human life on earth and the earliest forms of human culture; gain a broad understanding of the development of Mediterranean and Near Eastern civilizations.	● Gain a basic understanding of the timeline of human evolution (Homonids - Copper Age) ● Be able to broadly identify different phases of cultural evolution through the Near East and Mediterranean ○ Using different forms of timeline	

			keeping (Ages, Empires, locationality, etc.)
3.HIS.HiGe.1	Describe your environmental context	Become familiar with the reality of your country, your city, of one's neighborhood; understanding the meaning of the timeline.	- Describe their geographical context using colloquial terms - This includes at a city, province and national level - Understand and be able to explain how to use a timeline - This includes explaining the interconnectedness that exists in human societies (History doesn't occur in a vacuum)
3.HIS.HiGe.2	Recognize traces of the past	Recognize and distinguish signs of the past in one's own context both Urban and beyond. Recognize and distinguish signs of the past in Italy and beyond	- Be able to find and describe features in their own context, Urban areas and beyond, that showcase Italy's rich history - Locate features of the anthropized landscape that identify a historical presence in Italy and Beyond
3.HIS.Civ.1	Become familiar with the characteristics of Italian public life	State some principles of the Constitution; be informed about some basic rules of national and local government.	- Visually identify the Italian Constitution and state basic principles - Have a basic understanding of the rules and positions within their local and the national government
3.HIS.Civ.2	Orientation in the present and active citizenship	Using one's knowledge of the past to approach the problems of the contemporary world; to gain an initial awareness of current cultural diversity.	- Be able to identify connections between historical events and current issues. - Understand that cultural diversity is not a new concept in Italy and explore its effects on Italian culture over time.

			- Will explore local cultural differences in language, tradition and beyond. - Will explore the different cultures that make Italy their home today
3.HIS.Civ.3	Use historical knowledge as a tool to understand the present	Highlight the times, ways and the forms through which the present is linked to the past.	Will explore forms of historicization or how history has been kept in the past and how we continue to keep it today (i.e. Photography, writing, engraving, jewelry, fashion, etc.)
3.HIS.AcSk.1	Communication of historical knowledge	Being able to present orally and organize in put your thoughts into written form, composing the information you have acquired into a coherent narrative.	- Be able to do oral presentation in front of a small audience - Organize their thoughts in the written form, with a focus on non-fiction writing to share historical knowledge.
3.HIS.AcSk.2	Present historical facts	Place the salient events of the various periods on the relevant geo-historical maps, with their dates.	- will be able to identify on a map where specific historical events occurred - This includes geophysical location and date of occurrence - Will be able to identify and use different forms of geo-historical maps
3.HIS.AcSk.3	Master adequate presentation skills	Know how to orally present your knowledge. Use historically appropriate language and terminology in a context correct manner.	- Be able to make short oral presentations that adequately cover a specific subject - Be able to use historical terminology/language in the correct context
Recommended Subjects to be Covered	Prima: - The new geopolitical situation of Europe and the Mediterranean. - The Lombards		

	◦ Charlemagne. • The countryside in the Middle Ages ◦ Feudalism: lords and vassals • Italy, the engine of change: the cities and the merchants • The Maritime Republics, the Crusades and international trade (Marco Polo's journey to the East) • Three Italies: Municipalities, Papal States, the monarchy in the South • The great European monarchies • Humanism and Renaissance • The beginning of foreign domination in Italy • Three revolutions: the discovery of America and other geographical discoveries, the Protestant Reformation, the new Science • Non-European civilizations • The Thirty Years' War and the birth of the European system of states
	Seconda: • Absolutism • The Enlightenment • The industrial revolution • American Revolution and French Revolution: two different conceptions of freedom • The idea of nation and national revolutions in Europe • Liberalism, democracy, socialism • The Italian Risorgimento: Mazzinian conspiracies and Cavourian diplomacy • The Kingdom of Italy: how to build a nation-state • European colonialism and imperialism; the West's encounter with other civilizations • The second industrial revolution and new scientific discoveries Treza: • The First World War. • Italy at war. • The Peace of Versailles and the disintegration of liberal Europe: communism, fascism, Nazism. • Fascist Italy: the conquest of power, the construction of the regime, the opponents.

	● Mass society and the American century. ● World War II. The extermination of the Jews. ● Italy from its entry into the war to the Resistance. ● The world of the Cold War. ● The world's displacement towards Asia: decolonization, communist China. ● The economic development of the West and the welfare society. ● Towards European unity and the end of communist regimes. ● The political experience of the Italian Republic from the 1948 Constitution to the Clean Hands investigations and the 1994 elections with the birth of a new political-party system.
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(Expected Skills/Specific Learning Objectives by End of Grade 5 (Elementari Quinta))			
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 5 Students will....
5.HIS.1	Historical knowledge	Acquire knowledge of key historical events, processes, and figures, understanding their significance in historical context. Correctly place historical facts, processes, and figures in the correct chronological sequence and in their relative spatial context;	Building upon the knowledge base from Lower Primary, students will: ● Know Important historical events/epochs of Italy ○ Including Dates and important historical figures ● Be able to place specific historical figures in their correct context and explain their significance But with events memorized and greater depth
5.HIS.2	Understand and analyze major historical events	Know the main historical facts and their specificities and their differences in relation to Italian and European reality.	● Be able to identify and recognize connections between differing historical events ● Compare and Contrast historical events with

			- current world events - While using synthesis skills to build upon already established ideas
5.HIS.HiGe.1	Temporal and spatial placement	recognize aspects of the present that can be traced back to the past. (the concepts of sequence and simultaneity of actions, (HiGe) understanding the duration of actions) (the representation of cyclical time (day, week, month, season, year, etc.)) (the use of temporal sequences (before, after, finally, now, etc.))	- Understand and be able to explain how to use a timeline - This includes explaining the interconnectedness that exists in human societies (History doesn't occur in a vacuum) - Use vocabulary that identifies temporal sequences and/or the cyclical nature of time - Identify features in daily life that can be traced to an earlier origin - Contextualize the evolution of human tool use
5.HIS.HiGe.2	Recognize traces of the past	Recognize signs of the past in your urban context and landscape.	- Be able to find and describe features in their own context, Urban areas and beyond, that showcase Italy's rich history - Locate features of the anthropized landscape that identify a historical presence in Italy and Beyond - Conceptualize the law of Horizontality (things that are further down are from earlier in time)
5.HIS.HiGe.3	Personal and family biography		- Know their own family history and be able to trace back to their grandparents - Be able to use familial context to explain major events that occurred in the last 70

			years
5.HIS.Civ.1	Analyze historical documents	Illustrate the value of the historical documents proposed by the teacher.	- Explore forms of historicization or how history has been kept in the past and how we continue to keep it today (i.e. Photography, writing, engraving, jewelry, fashion, etc.) - Be able to explain the importance of historical documentation from a scholarly point of view - Be able to use historical documents to make points in historical arguments
5.HIS.AcSk.1	Synthesis skills	Appropriately summarize texts and narratives, identifying their essential features and drawing concept maps.	- Use different forms of historical documentation to make connections within or across specific periods - Use sources to summarize, explain and bolster their historical perspectives - Differentiate between Primary and Secondary Sources
5.HIS.AcSk.2	Communicating knowledge	Presenting acquired historical knowledge orally or in writing, logically and coherently describing historical events and processes, using appropriate language.	- Be able to do oral presentation in front of a small audience - Organize their thoughts in the written form, with a focus on non-fiction writing to share historical knowledge. - Be able to use historical terminology/language in the correct context
5.HIS.AcSk.3	Present historical facts	Place the salient events of the various periods on the relevant geo-historical maps, with their dates.	- will be able to identify on a map where specific historical events occurred - This includes geophysical location and date of occurrence

		(periodization and the timeline)	• Will be able to identify and use different forms of geo-historical maps
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Geography (GEO)

(Orientation & Space: OrSp; Language: Lang; Landscape & Territory: LaTe; Relationships & Dynamics: ReDy; Territorial Organization: TeOr)

Summary of Concept:

Geography in Italy is seen as a vital part of citizenship. The standards for this section focus on students understanding their physical location, and the relative location of specific places in their local communities. Beyond physical geography, there are also standards that fall under human geography (which includes basic economics, land use, the scaling of states, etc.) and what in the US we would call Earth Science (Natural processes and disasters). Additionally there is a heavy emphasis on Map literacy, specifically being able to identify different parts and types of maps, along with how to describe them in an academic way. Finally geography in the Italian sense delves deep into the interconnectedness that exists on Earth, whether between us and our environment, interstate dependence, historical connections and so many more. As a result of the large breadth of things covered under this topic, Geography is split into multiple subcategories:

- **ORIENTATION & SPACE**, where students are able to identify their location specially and temporally.
 - Includes: being able to identify and describe their physical environment as well as being able to determine the rich past of a location/site.
- **LANGUAGE**, where students are able to use academically correct language to identify the world around them
 - Includes: Knowing and understanding maps, how to read them, and how to describe a location using specific and often new vocabulary.
- **LANDSCAPE & TERRITORY**, where students are able to identify places in relation to themselves and identify specific features of the physical location around them
 - Includes: Economic activity and land use, Italian Geography, basic geo-sciences, and natural systems that evolve over time.
- **RELATIONSHIPS & DYNAMICS**, where students are able to understand the connections between people, each other and the landscape in which they live
 - Includes: Geopolitical issues, multistate cooperation, more-than-human interactions, and our changing climate
- **TERRITORIAL ORGANIZATION**, where students identify the political and physical boundaries that mark a 'place'
 - Includes: Basic global geography (knowing where countries are), understanding the scale of different politics and their evolution over time, and Italian internal geography (knowing about their own territory.)

Geography Standards

(Expected Skills/Specific Learning Objectives by End of Grade 3 (Elementari Terza))		
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)
3.GEO.OrSp.1	Orientteering and Map Skills	- Describe routes and positions, using personal recognition cardinal points through observation (sun and shadows) and the use of a compass. - Locate places and recognize landforms on a map. - Know and use geographical maps, including digital ones, compasses, coordinates and cardinal points, to orient oneself in geographical space by recognising the cultural diversity of places. - Know and use historical cartography and thematic maps to interpret phenomena and read landscapes.
3.GEO.OrSp.2	Personal Maps and Spaces	- Orient oneself in a known space reference points and communicating routes verbally or through the drawing of simple subjective maps. - Know the functions and rules of use of school spaces in order to orient oneself safely and independently within them.
3.GEO.OrSp.3	Scale	- Analyze spatial representations at different scales and times, understanding the relationships between the local and the global as they evolve. - Know, understand and apply the concept of trans scalarity in the reading of geographical space.
3.GEO.Lang.1	Describing Geography	- Know and use the concepts to describe the main physical and anthropological characteristics of one's own territory and of Italian landscapes - Describe and represent known places (school spaces, neighborhood spaces)

		- through drawings, descriptions and maps, using topological operators. - Begin reading geographical maps with legends at the local and Italian scale. - Know and use basic geographical vocabulary relating to natural systems and human interaction with the environment.
3.GEO.Lang.2	Communicating Geographical Concepts	- Interpret symbols and legends on geographical maps. - Use images, maps, statistical data, texts, and audiovisual materials to analyze geographical phenomena.
3.GEO.LaTe.1	Italian Landscape	- Know the main elements of Italian physical geography (rivers, seas, mountains, lakes,...) and be able to place them appropriately on a geographical map. - Identify physical and anthropic elements of landscapes and territories—e.g., the 60 UNESCO sites throughout Italy—identifying environmental transformations due to human activities.
3.GEO.LaTe.2	Geo-physical Landscape	- Intuitively understand and understand the concepts of landscape and territory. - Gain a deeper understanding of the main elements of Italian, European and world physical geography (rivers, seas, mountains, lakes, etc.) and be able to locate them appropriately on a map.
3.GEO.LaTe.3	Human Interactions with the Physical World	- Reading and interpreting the landscape: - analyzing physical and human aspects of the Mediterranean and European territory, identifying its key elements and highlighting the relationships between society and the environment. - Distinguish and describe landscape variety in the relationship between the environment and human activities, with reference to art. 9 of the Italian Constitution and art. 1 of the European Landscape Convention. - Recognize the value of the landscape as a factor in enhancing the territory. - Know the difference between natural space and territory modified by human

		- communities. - Recognize and analyze the impact of human activities on the environment, particularly the biosphere and natural resources. - Recognize the relationships between economy, society, culture, and the environment.
3.GEO.ReDy.1	More than Human Interactions	- Observe the relationships between human communities and the environment in a territory (e.g., relationships with animals, forests, rivers, seas, volcanoes, etc.), also distinguishing positive situations, risks, and critical issues. - Reflect on the conservation of environmental and cultural assets. - Develop awareness of the relationship between citizens and territory, between lived space and its care.
3.GEO.ReDy.2	Creation of Place	- Develop a sense of place: experience the social and cultural dimension of places and landscapes, recognizing the emotional connection and one's personal experience. - Recognize the role of spaces in social life: understand how spaces influence coexistence and the implementation of individual and collective projects. - Recognize the role of culture, society, and institutions in characterizing a territory at different geographical scales.
3.GEO.ReDy.3	Importance of Schools	Know, understand, and respect the functions and rules of use of public and school places for proper social coexistence.
3.GEO.ReDy.4	Evolution and Exploration of Land Use	- Understand the processes of territorial transformation. - Know and understand the impact on an Italian and global scale of current processes and phenomena such as climate change, migration, urbanization, world population growth, economic and social diversity. - Recognize the contribution of the economy to the development of a territory. - Landscape and territory: - identify and interpret the outcomes of interactions between human activities and the Earth system, investigating different landscapes and

		territories, at different geographical scales, even imagining solutions and projects for the improvement of places and relationships between human communities and the environment.
3. GEO. TeOr.1	Italian Landscape	• Know how to appropriately locate the Italian regions and the main Italian cities on a geographical map. • Know the peculiar elements of the Italian peninsula and its island territories: coastal articulation, Alpine arc, inland areas, islands and archipelagos. • Know the position of your territory and Italy in relation to Europe and the Mediterranean. • Understand the political and administrative organization of the Italian territory and its local and regional diversities.
3. GEO. TeOr.2	Local Geography	• Recognize and describe environments and landscapes characteristic of their own territory and of Italy.
3. GEO. TeOr.3	Global Geographical Organization	• Know how to appropriately place the main states and cities of the world on a geographical map. • Understand the European territory and the Mediterranean area (between Europe, Asia, and Africa) in its physical, political, economic, social, and cultural dimensions and relationships. • Understand the composition and purposes of the European Union and its role in relation to member countries such as Italy and the new global scenarios. • Identify the physical and cultural characteristics of the different continents and study some particularly relevant states for their role on a global scale and for specific cultural aspects or relations with Italy • Know how to place oneself spatially as an aware citizen, ◦ in one's local, national, European, and global context, through mastery of the main data of physical and human geography (cities, regions, states, capitals, continents, seas, mountains, rivers, lakes, etc.).

(Expected Skills/Specific Learning Objectives by End of Grade 5 (Elementari Quinta))		
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)
5.GEO.OrSp.1	Local Mapping/Aspects of your Local Territory	● Identify reference points for orientation in spaces outside the school. ● Explore the environment with curiosity: ○ place yourself in the surrounding environment, identifying its significant elements. ● Aspects of the territory: ○ relationships between human communities and physical elements (e.g., mountains, rivers, seas), naming, ○ transformation of the natural environment and exploitation of resources, structuring of spaces (e.g., functions, rules, organization, accessibility, public and private spaces) ○ the role of spaces in personal and social life ○ spaces as resources for realizing individual and social life projects and civil coexistence ● Personal space, the function and use of spaces starting from lived space: ○ the school space, the neighborhood, the city, the nearby territory (also understood as a physical or cultural subregion).
5.GEO.OrSp.2	Map Literacy	● Know cartography: be able to read symbols, legends, and scale reductions to locate physical and human elements on planispheres and regional maps. ● understanding the role of geographic location, using occasional and fixed reference points, topological indicators, cardinal points, compasses, and maps, including digital ones, to name and understand the functions and rules of lived and geographical spaces, and recognizing and appreciating the territorial diversity of landscapes and cultures. ● starting from the reading and interpretation of geographical maps (physical, political, historical, and thematic, at various scales) and other forms of

		- representation, including digital, analyze physical (e.g., mountains, lakes, rivers, seas, etc.) and anthropogenic (e.g., houses, roads, dams, industrial plants, etc.) aspects of the Italian territory - Spatial orientation through landmarks, drawn and verbalized routes, topological concepts (spatial indicators); - cardinal points based on the sun and the compass, geographical maps, including digital ones. - Represent and communicate everyday spaces: - recognize the functions, values, and critical issues of the spaces of lived and explored places to be represented and communicated, using drawings, texts, and simplified cartographic representations.
5. GEO. OrSp. 3	Basic Global Geography	- Have a mental map of the planet, locating the most relevant physical and human forms as well as some aspects related to cultural and social diversity. - Identify mountains, rivers, lakes, and seas within a given territory. - Explore the environment with curiosity: - Know how to navigate one's own living and cultural space as a true citizen, making informed use of the key data and elements of Italy's physical and human geography (regions, cities, seas, mountains, rivers, etc.) within a European and global context.
5. GEO. Lang. 1	Describing Physical Space	- Knowing, designating and describing through images the forms of geographical space (e.g. mountain, plain, island, sea, mountain range, city, countryside). - Know and appropriately use the most general concepts that allow us to reason about and interpret geographical space as region, territory, landscape, scale, place, border, distance. - Cartographic language (top-down view, symbology, reduction, scale); - cartography (including digital) and historical cartography; - statistical data, images, and sources for describing a landscape, continent, country, or region

5.GEO.LaTe.1	Italy as a Territory	• In-depth study of Italy and its territory: ◦ knowledge of the most significant elements of human geography (regions and major cities) ◦ the most significant physical features (seas, rivers, lakes, glaciers, mountains, etc.) located on the map ◦ morphology and hydrography, ◦ borders, political-administrative divisions, population, urban and rural areas, economic activities, ◦ social and cultural diversity, territorial divides; ◦ qualitative aspects (e.g., landscape values and landscape degradation); ◦ environmental issues (seismic, volcanism, hydrogeological risk, coastal erosion, desertification, subsidence) anthropogenic issues (economic and social diversity, demographics, and population aging)
5.GEO.LaTe.2	Europe as a Multistate Territory	• Know the main elements of European and world physical geography (rivers, seas, mountains, lakes,...) and be able to place them appropriately on a geographical map. • Examples of Italian and European landscapes and territories. • General physical-political and socio-cultural characteristics on a European and global scale.
5.GEO.LaTe.3	Territorial Systems	• Know and distinguish between strengths (economic and social development) and weaknesses (critical issues, risk) of an area, also considering it as a space of opportunity for personal and social life projects. • Natural Systems ◦ e.g., morphology, hydrography, climate, soil, flora and fauna ◦ human systems (e.g., inhabited spaces, communication routes, economic activities, political and administrative organization from municipalities to regions, states, and supranational organizations) and their interactions. ◦ Develop reasoning on the change and transformation of the landscape over time, also as planning for the future of the communities that live

		there.
5.GEO.LaTe.4	Scaling	• Locate and describe physical, historical, and political regions at local, national, and global scales, identifying relationships and connections between territories at different scales. • Reading and interpreting the landscape: ◦ identify key elements of a territory, and highlight the relationships between society and the environment.
5.GEO.ReDy.1	More-Than-Human Interactions	• Reflect on the connections between environment and emotions: reflect on the emotional bonds that connect people to the spaces they live in, expressing emotions through drawings that represent what has been observed. • Personal and National Connections ◦ Understand the main aspects of the Italian population, including the migration phenomenon, with particular attention to the local and Italian context.
5.GEO.ReDy.2	Climate Change	• Understand the effects of climate change, with particular attention to the environment and the Italian territory, and then consider them on a global scale.
5.GEO.TeOr.1	Geographical Academic Skills	• Know how to appropriately locate European and world states and major cities on a geographical map. • Know and infer geographic information: the main aspects of a continent, a state, or a region using different sources. • Locate and describe physical, anthropogenic, and cultural aspects of one's own territory, of Italy, and, in a simplified and general way, of Europe and the world.

Science (SCI)

(Exploration & Observations of Nature: Nat; Matter and Transformations: MaT;
Interconnections between Science, Art and Society: SAS;)

Summary of Concept:

In Italy, Science is part of STEM, but Maths, engineering or teaching tech are not a focus of this project, only the Science portion of STEM will be evaluated. Science is combined with maths to promote critical thinking skills and creative problem solving. The standards themselves say it best:

“The teaching of science in the first cycle of education is characterised by an intrinsically interdisciplinary approach, attentive to the role of creativity and imagination, and open to connections with the arts and with music, and is aimed at stimulating interest and curiosity in the exploration, study, and understanding of physical and natural phenomena, the ways of life on Earth, the characteristics of the mineral world...” (Primary Standards, pg. 75)

Science is about fostering creativity and connection, especially in young people. There are five subcategories that make up the Science standards in Italy, but due to the limitations of this project, we will be focusing on three:

- EXPLORATION & OBSERVATION OF NATURE, where students explore their surroundings and learn about basic scientific skills and cycles in nature
 - Including: The water cycle, the scientific method, data taking and display, etc.
- MATTER & TRANSFORMATION, where students identify states of matter and the transformations it goes through on Earth.
 - Including: Geology, weathering and erosion, classifications, heat and light, etc.
- INTERCONNECTIONS BETWEEN SCIENCE, ART AND SOCIETY, where students explore the diverse and robust ties between different disciplines
 - Includes: History of science, the interactions between art and the natural world, etc.

Science Standards

(Expected Skills/Specific Learning Objectives by End of Grade 3 (Elementari Terza))				
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 3 Students will....	
3.SCI.1	Science Communication	Read, understand and communicate scientific topics, knowing how to argue and motivate with appropriate skills and language their own statements.	Explain their thoughts and ideas on a specific topic using scientific reasoning and vocabulary	
3.SCI.Nat.1	Scientific Observation	Directly observe minerals, fossils, rocks, plants, fungi, animals and microorganisms, collecting samples and using, where available, appropriate investigation tools, to describe their characteristics and classify them based on criteria such as shape, colour, structure and habitat.	Be able to directly observe natural phenomena using appropriate methods (taking samples, sketching, taking quantitative and qualitative data, etc.) and then use said observations to classify and sort natural phenomena based on a specific criteria	
3.SCI.Nat.2	Natural Processes	Analyze the geosphere and the biosphere, recognizing the origin of rocks, geological processes and	- Be able to explain basic geologic processes (the rock cycle, erosion, etc.) - Be able to explain how these processes affect the ways in which humans interact with the natural world and risks/preventative	

		natural risks also in terms of environmental prevention.	measures that can be taken to ensure safety
3.SCI.MAT.1	Change over Time	Observe and describe the states of aggregation of matter and the various changes of state.	- Describe how the earth is a geologic SYSTEM which is inherently dynamic - Explore weathering, erosion, deposition and other forms of dynamic geologic events
3.SCI.SAS.1	Connections between Science and Art	Recognize the connections between science, art, and the humanities by observing the golden ratios in natural structures (shells, flowers), exploring the relationship between sound and mathematics (musical frequencies, harmonics), or studying astronomical representations in Renaissance artwork.	- Explore the ways in which nature has inspired artistic endeavours since very early human history - Explore the ways in which humans interact with the concept of space, and turn this into place through manipulation of the natural environment for aesthetic purposes.
3.SCI.SAS.2	Analysis	Analyze and interpret natural and anthropogenic phenomena using concepts, languages, and methods from natural sciences and physics, also in relation to the scientific and technological challenges of contemporary society.	- Explore and describe natural and anthropogenic phenomena using scientific language, information gathering, art, and factually based observations. - Creatively display their learning while maintaining factual accuracy.

(Expected Skills/Specific Learning Objectives by End of Grade 5 (Elementari Quinta))

Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 5 Students will....
5.SCI.1	Science Communication	Formulate hypotheses and seek explanations for one's observations through experiments, comparisons and collection of information	• Explain their thoughts and ideas on a specific topic using scientific reasoning and vocabulary • Use the scientific method to formulate arguments, ideas and respectful inter-peer debate
5.SCI.Nat.1	Observing Nature in Daily Life	• Observe and interpret natural phenomena with scientific curiosity, formulating questions, identifying relationships between measurable quantities and using appropriate language. • Knowing how to carefully observe what surrounds us, asking questions about what happens in nature and in the phenomena of everyday life (at home and at school).	• Observe and interpret natural phenomena with scientific curiosity, formulating questions, identifying relationships between measurable quantities and using appropriate language. • Expand their scientific observation skills to the world directly around them, through asking questions and taking data about things occurring in their everyday life.
5.SCI.Nat.2	Nature as Web	• Recognize interactions between living things and the environment, for example by observing how	• Recognize the interactions between living and non living things within their environment ◦ Explain how living and non living pieces of an environment inherently

		plants grow in different types of soil or how animals change their behavior according to the seasons. • Natural and anthropic landscapes; elements of the environment: soil, water, and its cycle, air, plants, fungi, animals, microorganisms; minerals, rocks, and fossils	• affect each other. • Recognize, explore and describe Natural and anthropic landscapes and how these concepts differ and change over time ○ Focus on the human effect on the environment beyond what we can see, as well as the effect of a physical landscape on human decision making.
5.SCI.MAT.1	Material Nature	Classify objects and materials according to their origin (natural or artificial), highlighting the properties and the aspects they have in common	• Classify objects and materials according to their origin (natural or artificial), highlighting the properties and the aspects they have in common ○ Explore the tricky cases, in which human activity has changed an object from its natural appearance but not its baseline make up
5.SCI.SAS.1	How Art birthed Science	Recognize the role of science in society by exploring scientific inventions that have changed history (such as the discovery of electricity or the theory of evolution) and discussing how	• Be able to identify how art and science are intrinsically linked using specific examples from Italian history • Describe and discuss the problematic past in regards to the ways in which science and art were used as tools of oppressors using specific examples from Italian history

		science impacts technology, medicine, and the environment	
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Art & Image (Alm)

(Expression/Production: EP; Communication: Comm; Observation/Reading: OR;

Analysis/Interpretation/Understanding; AIU)

Summary of Concept:

The way in which Art and Image standards are explained in Italy is very poetic, as in it takes over two pages to explain, but the main take-aways from this section are pretty simple. The creation of art is an intrinsically human action, one that shares feelings, understandings, concepts and more, long before written language becomes available to us (historically and in the present). Art is interdisciplinary. It allows us to see things from new perspectives and provides a common 'language' where all disciplines can meet. Art is multicultural. It is created all over the globe in many different ways with many different meanings and purposes. Art is contextual. To understand art, students must know the context in which it was created: who paid for it? What is it made of? What is depicted? And so on. Art is history. Art can be traced back to our early human ancestors and can be used as a way to see the dynamic changes that brought our society to the place in which it is today. All together, art is absolutely necessary to teach.

The standards say it best:

"In summary, the teaching of Art and Image pursues essential objectives: stimulating expressive and creative potential through symbolic play and visual storytelling; developing technical skills to educate the artistic gesture; instilling aesthetic literacy through works that enrich the imagination; promoting cognitive and emotional growth with symbols and metaphors; illustrating the history of art to raise awareness of the value of cultural heritage, with a focus on local heritage; and developing active citizenship, aware of the role of the arts in cultural preservation and dialogue."

Artistic education is split into 4 subsections:

- **EXPRESSION/PRODUCTION**, where students can show their emotions and ideas through a creative outlet
 - Including: SEL, basic types of arts and crafts like cutting, drawing, painting, etc.
- **COMMUNICATION**, where students share their world and identity through symbolic and metaphorical language
 - Including: Social-emotional skills, creative problem solving, etc.
- **OBSERVATION/READING**, where students observe, explain and connect to art using their own experiences and context
 - Includes: observation skills, expressing ideas, making personal connections, etc.

Art & Image (Alm)

(Expression/Production: EP; Communication: Comm; Observation/Reading: OR;

Analysis/Interpretation/Understanding: AIU)

- ANALYSIS/INTERPRETATION/UNDERSTANDING, where students can understand the meanings of works of art using contextual clues, historical understandings and cultural appreciation.
 - Includes: historical artistic context, cultural appreciation, specific contexts, etc.

Art and Image Standards

(Expected Skills/Specific Learning Objectives by End of Grade 3 (Elementari Terza))			
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 3 Students will....
3.Alm.EP.1	Cultivating Local Artists	Create works inspired by local artistic works, to cultivate one's originality through techniques simple by promoting historical and identity awareness.	• Explore local forms of artistic works • Use local forms of artistic works to communicate their identity and historical understanding
3.Alm.EP.2	Basic Drawing Skills	Draw realistic subjects from life (e.g., plant elements such as a leaf, simple objects such as a vase) using	• Learn how to draw realistic subjects using traditional mediums through repeated practice

		traditional techniques (e.g., pencils or charcoal), through gradual preparatory exercises;	
3.AIm.Comm.1	Emotional Communication	• Use colors, lines, shapes and materials to express emotions, personal ideas and stories, also taking inspiration from images and expressive registers taken from art, thus promoting the originality of personal expression • Express personal ideas through structured visual projects; • use visual language to communicate complex emotions.	• Use art to communicate emotions or personal experiences/connections using other works of art for inspiration • Explain their process and ideas using artistic vocabulary and concepts
3.AIm.OR.1	Artistic Literacy	• Recognize simple visual and audiovisual texts (e.g. paintings, illustrations, cartoons), describing their main compositional and formal elements (e.g. colors, shapes, light and shadow effects) and the basic context	• Observe, describe and identify artistic works using context clues, understandings of methodology (etc.) ◦ Give a basic explanation of a work using their observation skills • Recognize iconic works of art and be able to explain their basic context • Recognize basic techniques and mediums used in the production of artistic works

		• (e.g. what they represent, who created them), identifying their essential communicative code (e.g. colors for emotions, shapes for actions). • Recognize techniques and materials used in historical and contemporary works; read visual texts, including audiovisuals, identifying the context of their use (e.g. narration, communication).	
3.AIm.AIU.1	Art as a Cultural Medium	• Identify artistic and craft works or objects from one's own environment or from other cultures, naming their main characteristics. • Compare works from different cultures, identifying common or recurring themes. • Intercultural contexts of the studied creations (e.g., the social and communicative functions of art).	• Recognize artistic works from their own cultures and explain their main characteristics • Recognize the main characteristics of artistic works from their local Italian area. • Compare and contrast artistic works from multiple cultures using basic observations on function, medium, (etc.) while being culturally sensitive • Explore art as a medium for multicultural/intercultural communication and understanding

3.AIm.AIU.2	Art as a way a form of visual history	- Analyze a visual text (e.g. Renaissance painting, contemporary video) for its historical context, to strengthen their understanding and enrich their expressive languages. - Interpret the symbolic meaning of works based on historical context and iconic and iconographic elements - Notes on iconology, for interpreting the historical and cultural meanings of works (e.g., religious symbols in a medieval painting).	- Be able to analyze an artistic work for its historical context - Identify common iconographic elements/symbols and the meanings behind them - Compare and contrasts similar iconographic elements from different and similar contexts
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(Expected Skills/Specific Learning Objectives by End of Grade 5 (Elementari Quinta))			
Standard ID.	Sum. Sub. Standard	Subsection Actual Wording (Direct Eng. Translation)	Reworded Subsections (in the style of U.S. standards) By the end of Grade 5 Students will....
5.AIm.EP.1	Cultivating Local Artists	Create works (e.g. a drawing, a collage or a plastic or object composition) inspired by local works (e.g. a painting or a local	- Explore local forms of artistic works - Use local forms of artistic works to communicate their identity and historical understanding

		decorative frieze) to express emotions, ideas or stories, even through mixed techniques.	
5.AIm.Comm.1	Iconography Past and Present	The role of images in popular culture, ancient and contemporary	- Identify common motifs/iconographic elements and explain their meaning alone and in the context of a larger work - Explore how images play a role in political communication past and present - Expanding on what this can mean for better or worse
5.AIm.OR.1	Artistic Literacy	Observe and be able to comment on visual texts (e.g. paintings, videos), identifying their basic meanings (e.g. emotions) and formal aspects (e.g. balance, rhythm), identifying and knowing how to use the communicative code (e.g. soft lines for fluidity, shots for narration).	- Observe, describe and identify artistic works using context clues, understandings of methodology (etc.) - Give a basic explanation of a work using their observation skills - Recognize basic techniques and mediums used in the production of artistic works - Identify famous works of art and explain their purpose
5.AIm.OR.2	Context and Connection	Explore and understand simple contexts of works (e.g., who created them, in what period), connecting the elements to one's own experience.	- Gain a deeper understanding of artists through exploring the artists' personal connections to their work - Explore their own identities by creating personal connections with works of art/artists.
5.AIm.AIU.1	Cultural Comparison or Art	Connect works from one's own territory to themes from	Recognize artistic works from their own cultures and explain their main

	as a Cultural Medium	other cultures, with simple comparisons, demonstrating basic interpretative skills. • Main artistic works and traditions of your local area (e.g., local paintings, sculptures, or crafts), Italian and other cultures, ancient and contemporary (e.g., oriental mandalas, contemporary illustrations).	characteristics • Recognize the main characteristics of artistic works from their local Italian area, and then Italy more broadly • Compare and contrast artistic works from multiple cultures using basic observations on function, medium, (etc.) while being culturally sensitive • Explore art as a medium for multicultural/intercultural communication and understanding
5.AIm.AIU.2	Preservation for Future Generations	recognize the value of artistic assets and the importance of respecting them, developing a conscious approach to their protection.	• Recognize their role in the preservation of cultural treasures as the next generation • Understand that art is a way of preserving cultural knowledge and history through time • Identify risks to important artistic works and collaborate to come up with ideas to mitigate the identified risks.

Appendix K

Sample lesson Plan for Online Educational Resources

Lesson: Historical Communication and Community Building before Writing	
Age Level: <i>Elementari Terza</i>	Theme: Citizenship, Cultural Awareness, History, Geography, Academic Skills, Communication and Art as a Cultural Medium

Lesson Notes:
This lesson will touch on many different standards and recommendations, which will be sorted into two categories: Overarching/long term standards¹ and Topic Specific Standards . All will be listed below, and it is recommended to do a close reading of what is required by the end of <i>Elementari Terza</i> .

Italian Standards		
Standard	Larger Theme	Specific Skills within Theme
Required Skills for End of First Cycle Education		
Citizenship Skills	Participate in discussions constructively	- intervene in a group discussion respecting times and speaking turns, actively listening to others - formulate relevant and respectful interventions.
Citizenship Skills	Be open to different ideas and points of view	- Listen to and consider the ideas and points of view of others even when different from your own - Develop an open and tolerant mindset
Cultural Awareness & Expression Skills	Recognize different forms of cultural expression	Expression, such as theater, music, film, dance, and simple works of art in their context
Cultural Awareness & Expression Skills	Place basic cultural elements in space and time	Locate significant environments, events, cultural phenomena, and simple works of art in geographical space and historical time.
History		
3.HIS.HiGe.2	Recognize traces of the past	Locate features of the anthropized landscape that identify a historical presence in Italy and Beyond
3.HIS.Civ.3	Use historical knowledge as a tool	Will explore forms of historicization or how history has been kept in the past and how we

¹ Due to the grade of students identified for this lesson, all of the overarching skills will be those listed as to learn “By end of Primary (1st Cycle - Primary).”

	to understand the present	continue to keep it today (i.e. Photography, writing, engraving, jewelry, fashion, etc.)
Geography		
3.GEO.LaTe.1	Italian Landscape	Identify physical and anthropic elements of landscapes and territories—e.g., the 60 UNESCO sites throughout Italy—identifying environmental transformations due to human activities.
3.GEO.LaTe.3	Human Interactions with the Physical World	- Recognize the value of the landscape as a factor in enhancing the territory. - Know the difference between natural space and territory modified by human communities.
3.GEO.ReDy.2	Creation of Place	- Develop a sense of place: experience the social and cultural dimension of places and landscapes, recognizing the emotional connection and one's personal experience. - Recognize the role of spaces in social life: understand how spaces influence coexistence and the implementation of individual and collective projects.
Art and Image		
3.AIm.Comm.1	Emotional Communication	Use art to communicate emotions or personal experiences/connections using other works of art for inspiration
3.AIm.AIU.1	Art as a Cultural Medium	- Recognize artistic works from their own cultures and explain their main characteristics - Recognize the main characteristics of artistic works from their local Italian area.

Goals for Students:²
1.) Students will be able to Identify Valcamonica as a UNESCO site and explain why it is uniquely important to human history.
2.) Students will be able to identify that 'Place' is tied to culture, tangibly or intangibly, and that building it is a collaborative process through the case study of Massi di Cemmo.
3.) Students will explore how art and image have been used to communicate community values, historical understandings and other information before and after the widespread use of writing systems.

² In education, these goals are often stated as "Students will...." when directed at teachers, or "I Can/Will...." when directed at students.

- 4.) Students will discuss, collaborate and engage with each other in a respectful and open-minded way.

Prior Knowledge needed

- That Italy is a very important for pre/protohistory
- What a UNESCO site is

Necessary Knowledge to impart with this lesson

There was a time Before Writing

Writing as a system of communication has not always existed, especially in the mountains of Northern Italy. So what did people do instead? There are many examples of how important information and ideas are/were communicated before writing which include:

- Storytelling - It was very time consuming to learn how to read and write, so in the past many did not and instead knowledge was passed through stories. Originally the Iliad was a story told by specially trained poets who worked for many years to memorize it, even after Homer wrote it down.
- Dancing - In some cultures dances are created to memorialize special events or knowledge and then taught from one generation to the next. The most widely known example of this might be Hula dancing, which was used throughout history by Native Hawaiian people. Each movement represents something and when put together it becomes a type of visual story.
- Painting or drawing - This is probably the easiest of these alternative forms of history making, and something almost everyone does as a young child. In the past to warn someone that there was something dangerous ahead like a rock fall area, someone may have drawn a skull and rocks falling. This way of passing important knowledge continues today with things like road signs, which can give a lot of information with just a few pictures.

This lesson is about something similar to painting/drawing, but more challenging and much more permanent: Rock engraving. Though researchers don't know everything about what rock engraving was used for in the past, they do know it takes time, energy and skill so it must have a purpose. There are still cultures to this day that use rock engraving as a way to communicate without writing:

- In Southern Africa (Namibia especially) the San people use rock engraving to create maps of where water can be found in the Kalahari desert. This lets the people who pass know where to get vital resources and where they might find animals to hunt for food.
- In Australia, the Aboriginal people use rock carvings to create special locations for ceremonies like feasting or coming of age. The engravings mark these particular places as culturally important to anyone who comes across them.

What can rock engravings tell us when there are no more people who know how to 'read' them? This is what is being investigated today.

Valcamonica as a UNESCO Site	Valle Camonica is home to UNESCO site no. 94, also known as the “Rock Drawings of Valcamonica.” It was the first UNESCO site in Italy after being inducted in 1979 as a result of its thousands of rock carvings that were created over a period of 8,000 years. Beyond just the carvings there are also many important archaeological sites including burials, settlements and so much more! Historical timeline wise, there are some periods that are more important than others for the valley: ● Neolithic (more than 5,000 Years Ago) - Very early rock engravings usually in the form of ‘cup marks’ and the praying people found at Naquane ● Copper Age (from about 5,600 - 4,000 Years Ago) - The creation of cultic areas like that of Massi di Cemmo and the introduction of human and animal figures into the rock engravings ● Iron Age (from about 2,800 -2,300 Years ago or 800-300 BCE) - This is the period in which most of the rock carvings (including writing!) were created which showed how well Valcamonica was connected to the rest of Italy and the larger Mediterranean system. Humans have been changing the shape of Valcamonica for a very long time and as a result it was recognized as a globally important location in understanding our collective past. Why Valcamonica? It is important to remember that though people of the past physically shaped the land, the actual landscape of Valcamonica created the limits of their world. To engrave stones, people need flat surfaces of shapeable rock. Valcamonica happens to be made of sandstone (something that is pretty easily carved in comparison to other types of rock in the Alps) that was flattened and exposed by glaciers creating the perfect location in which to put rock engravings. What a place provides is what people must work with and that shapes the cultures that are built there.
History is not a Science	Especially when dealing with pre and proto history, it is very important to continually remind students that History can have more than one interpretation and that due to the nature of very early human activities, there are some things that we will never be able to know the answer to. Beyond that there are several other important things to highlight under this category: ● There may be multiple answers and ideas on what happened in the past, but there are discussions that are factually incorrect (if time is available, one could use this as a segway to discuss the dangers of misinformation). ○ Help students determine what is a trustworthy historical resource versus one that may provide inaccurate information ○ Identify the differences between historical resources and archaeological resources as well as how they are both used and produced ● History is not created in a vacuum, and one of the things that is almost universally true is that humans share ideas between communities. ○ Exploring the ‘phenomena’ of rock engraving using philosophical questions, identifying trends like megalithism in the Copper Age, etc. ● History is tied to place. The location in which something happened in the

	past can determine the outcome, what was done and who was involved. One cannot truly understand an event until they understand the environment in which it occurred.
Copper Age in Valcamonica	One of the most important periods in the development of Valcamonica was the Copper Age. During this period there was the creation of Megalithic cultic sites and a lot of symbolic and technical evolution in the making of rock engravings. Megalithic sites fall into two categories, Alpine and Valley. Both types have engraved rocks, large and smaller (movable), meadows (natural or created), and often have artifacts and even human bones. What sets them apart is... • Valley Sanctuaries also have water located in the site, large cliffs, the engraving of large boulders, and are often home to Stelae, human shaped and engraved rocks that can be moved and require help to stay standing. • Alpine Sanctuaries usually use Stele-Mehnirs which are shaped by nature but engraved by humans. The focus of this lesson will be on Valley Sanctuaries and more specifically on the evolution of the engravings found at Massi di Cemmo. While there are more stylistic and technical differences, there are four main phases of engraving, all of which happened in the Copper Age: 1. The Rocks-as-People Phase a. During this period, rocks were carved to represent people and came in two forms Armed (carved with weapons and belts) or Adorned (carved with jewelry and T-shaped faces) b. Only the Armed Stele are recarved after this point, the Adorned stele (in most cases) are left alone after this first phase. 2. The People on the Rocks Phase a. During this period human figures (and domesticated animals) are introduced. There are also new motifs like: a man and Oxen plowing, and the sun 3. Wild Animals Phase a. During this period many of the carvings produced are in the form of Wild Animals like deer, wolves (???) and wild boar, but mostly deer 4. People Holding Hands Phase a. During this last phase the engravings become a lot more organized with a clear do-not-carve-above line at the top and evenly spaced human figures and dots. It is important to highlight that not all of the stelae went through all of these phases (some were never carved at all!), these are just the seemingly most common.
The Copper Age at Massi di Cemmo: A Case Study on communication	<i>Massi di Cemmo in the Copper Age:</i> As of right now, evidence shows that Massi di Cemmo began its life as a sanctuary during the Copper Age, though people were there earlier. By the end of the Copper Age (around 4,000 years ago, or about 2,000 BCE) and beginning of the Bronze age, the sanctuary was made of two large engraved boulders (Cemmo 1 and 2), an alignment of at least 26 stelae going from North to South with their carved sides facing the east where the sun rose, three covered plow marks, and a special area that contained a broken stele and a piece of human bone. From this point, the sanctuary would not be used as a gathering place for 700 years!

	The sanctuary was used and redeveloped during this period which spanned about 1,500 years, and by taking a closer look one can see how the culture of its users changed and developed. <i>Engraving as a Form of Cultural Communication:</i> Exploring how engravings at the sanctuary changed during the Copper Age can tell us today about what the people who used the site found important. Before exploring further, it is important to remember that engraving rocks is not easy, and to do it with precision and uniformity takes specialized skills, tools and experience. This is to say that these stelae are not random doodles, someone or some people invested a lot of time and resources into creating them during a time where both of those were in short supply. <u>So what are they trying to tell us and how did that change over time?</u> Unfortunately there is no real answer to this question, just guesses based on artifacts found at Cemmo and the other Copper age sanctuaries. That being said, there are some very clear ways to see how people's view of the site changed over time. To figure out what engravings came first, scholars look at which ones overlap. The oldest engravings will all be of a similar theme (discussed above) and may have the most layers of different carvings overlapping them. There are two very clear moments of change in terms of what the sanctuary may have been used for if one bases their hypothesis on the engravings of the stelae: 1. The Rocks-as-People Phase -> The People on the Rocks/Wild Animals Phase a. This is a very clear shift, the stelae (and boulders) go from being engraved to 'look' like people/represent them to showing people on their surface. Going from representing a person to being the 'paper' on which people/animals are drawn is a big shift! The rocks lost their personhood and evolved into an object to display what people were doing. i. Imagine going from being a beautiful piece of canvas cloth that is appreciated for its fine weave/construction to being a canvas on which a painter paints (this is extreme, but perhaps more understandable for children) b. There is also a shift of focus from individuals and weaponry to agricultural activities like plowing. Plowing has been important since the foundation of the sanctuary, but it did not appear on stelae until they lost their person status. 2. The Wild Animal Phase -> People Holding Hands Phase a. This is another clear shift as the stelae go from primarily displaying seemingly randomly placed wild animals to very strict and regimented people. Some scholars believe that this is the point where building and maintaining the sanctuary really became a community effort/project, as these engravings show both high levels of organization and reintroduce people motifs though this time they are explicitly related to one another due to the hand holding. i. This idea of Cemmo as a community project is interesting to consider especially when putting into context the next phase of site development in 700 years of abandonment. Over all because there are very few definitive answers (these artists didn't have
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	writing yet that is known of), so historians and archaeologists today are left to consider what the people of the past were trying to tell us.
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Educator Notes:	• This lesson is a very basic introduction to the concept of prehistory and as a result there is a lot of context and additional information missing. It was done for two particular reasons: primarily because most 8 year olds are just learning critical thinking skills and are unable to read and participate in academic discourse, and secondarily many teachers do not have training in this topic and can therefore share misinformation completely by accident. By making this lesson introductory and primarily acting as a thought exercise, everyone is able to participate and there is less likelihood for people to be misinformed. • Prehistory can be a great way to introduce new ideas and concepts because there is a lot that is still uncertain. In sharing the actual scientific and historic information we do have, there is still a lot of space to expand, explore and think in hypotheticals, while still being grounded in reality with strict limits.
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Lecture		
Section	Important points to Hit/Scripted Examples	Questions for Friends (QfF)
Intro	Ask students what history is and allow time for them to think and answer. Create a list of their answers to refer back to throughout the lesson. After the list is assembled, prompt them to think further by asking about how important things are recorded when they are happening, and then again in a world without writing.	- What is History? - Who decides it? - How do we keep track of it? - How do we determine what is important? - How would you keep track of it in a world without writing?
Goals	Introduce learning targets	
Background	Discuss examples of how people record important information without writing (see above and attached slide show).³ Introduce the 'local' example (meaning one in Italy) of Valcamonica. Liberally use pictures and maps to give students a clear visual. Specifically Discuss: - What a UNESCO site is	- Have you heard of the Iliad? - Have you heard of Hula? - Did you draw to communicate things when you were younger? - Have you been to a UNESCO site? If so, which one? - Have you heard of Valcamonica?

³ For the purposes of this thesis I will not be making an example of the slideshow that would exist with this lesson in reality.

Lecture		
Section	Important points to Hit/Scripted Examples	Questions for Friends (QfF)
	- How location shapes history - Explain what ‘prehistory’ means in context, and what it means for students when they think about the people of the past Explain about what occurred in Valcamonica in the Copper Age, making sure to stop and let them ask questions (it is okay if you don’t know, it means that they have something to look up later). Remember to highlight how we are only seeing what is left over, as much of people’s daily lives are lost to us due to time.	- What types of things do you think they engraved and why? - What do you think the point of the engravings are? - What do I mean when I say location shapes history? And do you think that's true? - Do you think what we find in Valcamonica today is the whole picture of what life was like there in the past? Why or why not?
Case Study	Help scholars ‘explore’ Massi di Cemmo, (I would recommend doing this using pictures and one of the accessibility focused audiovisual presentations provided online) this section will be discussion heavy as students talk about what we can interpret about life in the copper age, or more specifically about Cemmo from rock engravings. Specific Questions to include: - What do you think the change in themes of the engravings mean? Why? - What might Cemmo have been used for? - Why would people build it? - Why do you think some scholars think it may have been a type of community project? - What can these engravings tell us about what was important to people of the Copper Age in Valcamonica? - What makes you think that? You can do this as a full group discussion or in small groups, but by the end everyone should be discussing together and practicing the skills highlighted in Goal 4.	- What time period would you be in if you went back 1,500 years from today? How much has changed in that time? - What do you think your objects would tell people of the future about you?
Assessment	See Activity Below	

Lecture		
Section	Important points to Hit/Scripted Examples	Questions for Friends (QfF)
Conclusion	Gather class back together and let each group share what they put on their stele and why. Discuss what all the stelae together could tell someone about what is important to their classroom community.	- What do our stelae tell others about what is important to us? How? Why? - Did this project make you think about what is important enough to share? Why or why not?

Assessment Activity:	Creation of a Classroom Sanctuary
Needed Materials:	Easy: Cardstock (heavier weight paper), pencils, bad marker/dotting tool More Involved: Corrugated Cardboard, Dull Pencils
1. Students are prompted to think about what the most important idea about their classroom community is and how to draw it as a simple symbol. a. Trust could be an ear, good snacks could be a cookie, etc. 2. Students will then work together in groups to create a Stelae. This will require them to each create a design and explain it, and then discuss and come to a compromise on what will make it onto the final piece. a. Have example of a Stele from Cemmo for them to reference and remind them how simple (for the most part - we are talking about armed stele) and how few the designs are (at most they can have 3) 3. Students will create their final piece taking turns (each piece should have enough decided upon concepts that every group member gets the chance to add to the piece). This can be done one of two ways, depending on how much you trust your students: a. Using corrugated cardboard students will sketch out their designs by making faint imprint lines; next they will put their cardboard on a soft surface with suitable thickness (carpet, dirt, old magazine, etc.); then they will use the dull pencil to punch their design out of the cardboard before passing it onto the next group member who will repeat the same steps; this will continue until all have finished then it will be displayed on the window so when light shines through you can clearly see their designs b. Using the paper students will sketch out their designs using a pencil; next they will fill the outline of their design in with dots using a marker or dotting tool; they will then pass it onto the next person who will repeat the same steps.	
Notes:	There is an easy and hard way to do this project. It really depends on time, material availability and if your classroom has a window.

Appendix L

‘Archaeologist-in-training’
Workbook Sample

Figure A

This is an example cover created for the Archaeologist-in-Training program in English and Italian that would be accessible online or in person at MuPre.

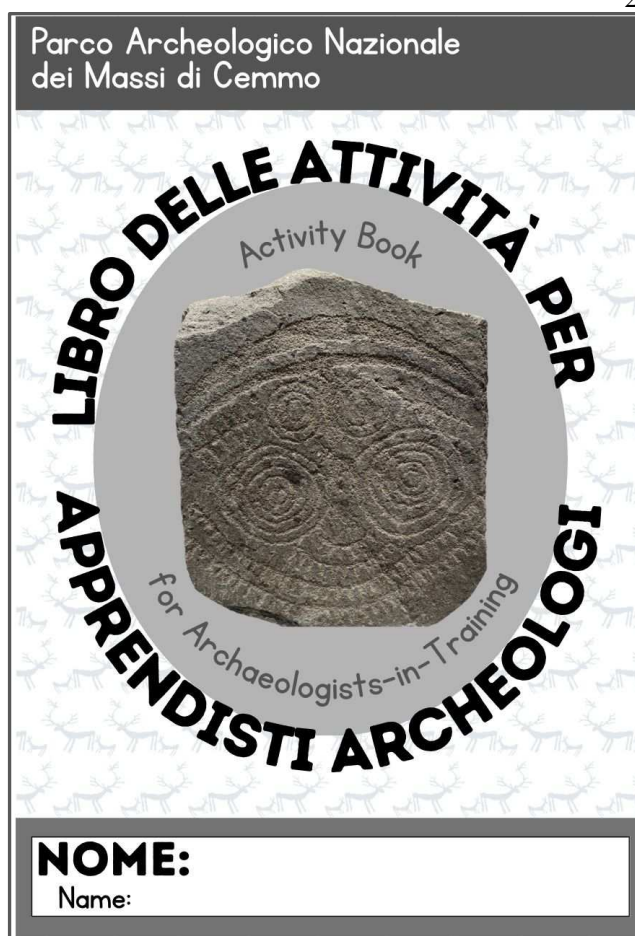


Figure B

This is an example of the certificate you would get after completing the requirements listed at the beginning of the work book. It can be signed by any adult, which cuts down on the amount of manpower needed for the program to work and allows for it to be completed remotely.

Parco Archeologico Nazionale dei Massi di Cemmo CERTIFICATO DI APPRENDISTI ARCHEOLOGO Archaeologist-in-Training Certificate	
Come Apprendisti archeologo, farò del mio meglio per imparare e condividere l'importanza preistorica dei Massi di Cemmo e della Valcamonica nel suo complesso! as an Archaeologist-in-training I will do my best to learn and share about the prehistoric importance of Massi di Cemmo and Valcamonica as a whole!	NOME: Name:
	DATA: Date:
	FIRMA DELL'ADULTO Adult Signature

Figure C

This is an example of the first two pages of the workbook. The one on the right is more important as it explains how the program works and what a person must do to complete it. It also implies that you can receive a prize from MuPre, but this would only be initiated with the museum directors explicit consent.

BENVENUTI NEL

Welcome to

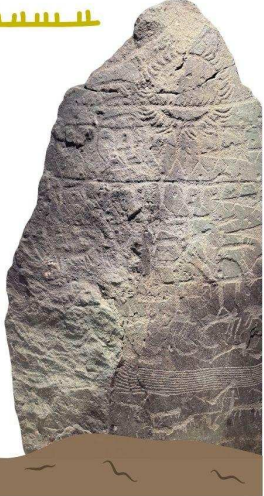
PARCO ARCHEOLOGICO NAZIONALE DEI MASSI DI CEMMO

QUESTO È UN PARCO NAZIONALE!

This is a National Park!

Un parco nazionale è un luogo che appartiene a tutti gli italiani e, in quanto visitatori, è nostro dovere proteggerlo affinché anche altri possano goderselo!

A national park is a place that belongs to all Italians, and as visitors it is our job to protect it so others get the chance to enjoy it!



COME POSSO DIVENTARE UN APPRENDISTI ARCHEOLOGO?

How do I become an Archaeologist-in-Training?

Imparando a conoscere i Massi di Cemmo e completando tutte le pagine con il simbolo corrispondente alla tua età elencata di seguito:

By learning about Massi di Cemmo and completing all of the pages with the symbol that matches your age listed below:



LA FASE COMUNITARIA

The Community Phase

L'ULTIMA FASE DELLE INCISIONI. le attività con questo disegno sono per bambini dai 3 ai 6 anni.

The latest phase of Engravings. Activities with this design are for ages 3 to 6



LA FASE ANIMALE

The Animal Phase

LA FASE INTERMEDIA DELLE INCISIONI. le attività con questo disegno sono per bambini dai 7 agli 11 anni.

The middle phase of Engravings. Activities with this design are for ages 7 to 11



LA FASE IN CUI LE PIETRE RAPPRESENTANO PERSONE

The Stones-as-People Phase

LA PRIMA FASE DELLE INCISIONI. Le attività con questo disegno sono adatte a partire dai 12 anni.

The Earliest phase of Engravings. Activities with this design are for ages 12+

Completa tutte le attività e mostrale al personale della reception di MuPre per vincere un premio!

Complete all of the activities and show it to someone at the front desk of MuPre for a prize!

Figure D

This is an example of two activities that could be included in the workbook. The one on the left is accomplishable by any age with support, whereas the activity on the right is only marked for the two older 'Phases' as it requires critical thinking and writing in a small box.

CHE COS'È UN ARCHEOLOGO?

What is an Archaeologist?

L'archeologia è lo studio degli oggetti che le persone hanno creato, utilizzato e lasciato dietro di sé, e un archeologo è una persona che trova (a volte **SCAVANDO**) questi oggetti e ne scopre l'utilizzo (a volte lavorando in un **LABORATORIO SCIENTIFICO**)!

Archaeology is the study of things that people made, used, and left behind and an Archaeologist is a person who finds (sometimes by digging), these things and figures out what the things were used for (Sometimes by working in a science lab)!




Quando gli archeologi trovano frammenti di ceramica vicini tra loro, devono verificare se si incastrano. Riesci ad abbinare i pezzi che si uniscono?

When archaeologists find broken pieces of pottery near each other they have to see if they fit together. Can you match which pieces go together?



Immagini di frammenti di ceramica provenienti dal British Museum/Shared Pictures from The British Museum



CAZZUOLA
Trowel



Field Notebook
TACCUINO DA CAMPO



Pick Axe
PICCONI

GLI STRUMENTI DEL MESTIERE!

The Tools of the Trade!

Gli archeologi utilizzano molti strumenti diversi per svolgere il loro lavoro. Dai un'occhiata agli strumenti in questa pagina e scrivi a cosa pensi che servano!

Archaeologists use a lot of different tools to do their jobs. Take a look at the tools on this page and write what you think they are used for!



FRECCIA
Arrow



DRONE

Troverete le risposte in questo opuscolo!

Look for the answers throughout this booklet!