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TITOLO

**Valcamonica Rock art between final
Neolithic and early Copper Age. The case
study of the R.6 of Luine and R.9 of In Valle**

Candidato

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Introduction

Prehistoric Valcamonica is mostly known in the world for the extensive concentration of rock art. However, a series of systematic excavations and investigations by promising researchers brought to light a significant number of sites and archeological material, evidence an equivalent important cultural heritage. The intention as the initiative of Francesco Fedele and his team was when he started excavating Breno castle area, to provide also a different documentation, independent of that of rock art. And indeed. The Breno castle has been revealed one of the most important settlements in the valley, with rich testimonies of the distant and relatively recent past. Emmanuel Anati on the other side, has founded an important systematic methodology for rock art research under a humanistic vision and his documentation has set the base of a long-term studies in valley. His significant contribution should be merit also for a series of sites he has excavated, the most known of which in Luine that has revealed a very important and long rupestrian stratigraphic sequences, that could be associated with the excavated layers. Over the years, and with excavations held by the local Soprintendenza and Universities too, a contextual frame of settlements, rock art sites, burials, etc. in the valley has been set.

It is true that the biggest concentration of rock art in the valley still today comes from Iron Age. Maybe due to its outnumbering or for historical reasons this period has been strongly favored fatally towards a more rapid evolution of studies, letting other historical phases such as Neolithic of Copper Age follow a later bloom. The opening of the road of Vite Deria in Paspardo in the 1990s has aroused interest and revived a need to focus on other periods too. The study of the thematic unit of Neolithic (principally) elements concentrated on the rocks of Paspardo ever since their discovery has been compensating by revealing interesting aspects of human life in prehistoric Valcamonica, while the discovery of the ceremonial areas of Ossimo and Cemmo has shed light on the new ideological aspects of the IIIrd millennium. Unfortunately, still today, apart from Luine, not much information come from the lower valley, especially for periods such as Neolithic and Copper Age on rock art which traditionally have been references to the sites of Ossimo, Cemmo, Borno, and high altitude Paspardo for Neolithic.

Studies have shown similarities in the figurative language between different cultures at the around the same time, overtime, suggesting a common background, migration and contacts, implying wider geographical and sociocultural borders than we think today. A similar patterning is noticed on rock art which is part of the cultural expressions of human and it gets affected, but also determined by him. But framing rock art only in its horizontal horizon is not enough. Every transition is always in reference to a revision of the past, in order one to delegate with the present and be able to secure the future. In that

sense in reality transitions are rarely abrupt fearful invasions, but relational events. However, the future it is something that always deals with uncertainty and the unknown a so impossible to know. Strategy construction could diminish the possibilities of failure and set more controllable contexts to deal with for the human mind. This is our natural inclination. In that sense, transition and change is not a moment or a fix trait somewhere but a process that is contextually and socioculturally related. Landscape is also involved as an active space and as a culturally transformed time. Looking at the past in the archeological layers and rupestrian stratigraphy has not the aim to find one specific trait to denote change but rather instead one assumes and learn the relational patterns and dynamics taking place in each stage of the process of transition.

Moreover it will take into consideration also both the archeological material in order to better understand the complexity and the graphic variability intending to provide a more systematic review Neolithic and early Copper Age rock art in the valley by studying also contrary but at the same time similar locations: Paspardo and Luine.

3.2 Chapter 1: Problematics

1.1 History of studies

When one starts to think of the current studies of a discipline it is inevitable to skip the contributions of former researchers in the field. However, the aim of this subunit is not to present in an extensive way the history of rock art studies in Valcamonica, but to rest it as an introduction in a brief, but comprehensive way, to future readers.

Even though only after 1979, with its inclusion within the UNESCO World Heritage List, Valcamonica became most widely known, the first official testimonies for rock art in the valley date back to 1914, when Walther Laeng reports in the first edition of the Italian Touring Club guidebook of Italy, the presence of two engraved boulders in Cemmo that bear engravings similar to those found in Lago di Meraviglie in the Maritime Alps (Bertarelli, 1914). But real interest would be aroused ~20 years after this publication news.

The first scholars who dealt with the study of the two Cemmo boulders Valcamonica rock art were Giovanni Marro, professor of Archeology in the University of Torino (followed by Senofonte Squinabol) and Paolo Graziosi, from Florence University, at the beginning of 1930's. During 1931 Ettore Ghislanzoni and Raffaello Battaglia, together with Antonio Nicolussi, brought to light a number of various rock art sites in the valley (Battaglia, 1933; 1934). However, Marro and Battaglia during their collaboration were often litigating over issues of paternity and scientific methods. Even if Battaglia presented good observational skills in his approach taking into account different aspects, i.e. the rock patina, the geological formations and other parameters, but he failed in two points as those identified by (De Marinis & Fossati, 2012) : in the utensils for the execution of rock art and the chronology. On the first, he retained rock art to have been executed with metallic instruments Iron in substance while on the second, he reduced rock engravings to Iron Age in their earliest phase. (Battaglia, 1934).

In the years of the IIWW a team of German researchers led by Franz Altheim and Erika Trautmann, under the auspice of the Nazi leader Heinrich Himmler, published a number of articles about Valcamonica rock art. Their investigation activities aimed to collect proofs of the origins of an ancient "arian race" and its chronology was fixed to the Iron Age as the most ancient. (De Marinis & Fossati, 2012).

After WW II, Marro and Laeng along with Emanuele Süss -at that time director of the Brescia Natural Sciences Museum and Battista Maffessoli set up the “Brescian group” that continued the research in the valley (De Marinis & Fossati, 2012).

In 1954 the first map of Naquane-Ronchi di Zir was compiled by Süss, leading to the declaration of the National Park of Naquane in the following year.

In 1955 the engravings of Luine hill came to light for the first time (Laeng 1956; Anati 1962) and, if until that moment the Valcamonica rock art was still attributed to Iron Age, things were going to change soon (Anati, 1982; De Marinis & Fossati, 2012).

Indeed, after the mid 1950's Emmanuel Anati (founder of Centro Camuno di Studi Preistorici, CCSP), arrived in Valcamonica to study and compare the rock engravings discovered until that time, with those of Mount Bego (Maritime Alps, France). Very soon he dissociated from his forerunners, posing a new base over the scientific study of rock art. The fundamentals could briefly be summarized as reported in De Marinis & Fossati, 2012: *«the systematic nature of the research and the exhaustive analysis of individual rocks with engravings, not a selection of more or less interesting figures; manual documentation of the historiated surfaces alongside the photographic documentation; the stylistic classification of the figures, with the definition of four main styles (I-IV); the analysis of overlapping figures, in order to understand the evolution of styles; dating carried out by comparing the figures of weapons and ornaments with archaeological artefacts relevant to precise chronological and cultural contexts; the interpretation of symbolic compositions and narrative-descriptive scenes»* (De Marinis & Fossati, 2012, p. 22).

Anati's background in Humanities has also left us some interesting approaches (Anati, 1994). Indeed, he proposed (Anati, 1994) *“a classification methodology taking into account the socio-economic framework of each culture (archaic hunters, evolved hunters, shepherds (breeders, and complex economies), the typological approach to signs (pictograms, psychograms and ideograms), the types composition, thematic, stylistic and technical archetypes, and the location of the figures”*¹.

Furthermore, Anati gave a strong stimulus to the rock art research both in Valcamonica and worldwide, organizing international events as well, such as the first international congress “Valcamonica Symposium” in 1968. The discussed topics of the Symposium were rock art, of course, but also religion, art, humanities and other disciplines too, favoring the debate among scholars (Anati, 1968).

¹<https://www.semanticscholar.org/paper/Archetypes%2C-constants%2C-and-universal-paradigms-in-Anati/9403e5df002f824b352eae76c5d86d8b314fbf4a>

Anati carried out his systematic research and documentation activities, many times undertaking excavation in the adjacent areas of the engraved rocks, such as in the case Luine hill and Foppe di Nadro.

One could say that 1980's was a decade characterized by more rapid changes in rock art research. The exhibition of 1982 "*The Camuni: at the roots of European civilization*" in Milan, was a landmark not only for Anati's work but also from educational viewpoint, widening the public that had the opportunity to discover such an incredible heritage.

In 1987 the department Valcamonica of CCSP was founded by Milla Simoes de Abreu and Umberto Sansoni, while at the same time other independent approaches on the methodology, cataloguing and interpretation start to raise. One year later, the Archaeological Cooperative Society "The Footsteps of Man" was founded, under the direction of Angelo Fossati and Milla Simoes de Abreu.

Always in this decade many rock art areas have been studied by both CCSP and Footsteps of Man teams, e.g. Seradina, Paspardo, Pia d'Ort, Sellero, Campanine Cimbergo and Pagherina-Dos del Pater to name a few. Moreover, new excavations in Ossimo-Anvoia and Pat undertaken by F. Fedele revealed interesting cultural areas of the Chalcolithic (Fedele, 1990; Fedele, 1994; Keller, 2009).

The big change in this decade though, could be summarized in the consideration of rock art as an archeological discipline (De Marinis & Fossati, 2012). Raffaele de Marinis, deepening the chronological and cultural issue around the IIIA – IV style set a base for new discussions and in 1989 for the first time was introduced the concept of "Rupestrian Archaeology" in Italy (Casini S. , 1994; Fossati, 1997).

Later researches in the valley, especially the Neolithic settlement of Castello di Breno studied by Francesco Fedele enriched the data of human occupation in the valley (Fedele, 1988).

In the 1990's research activities continued in the Valley. The opening of new roads such as that of Deria in Paspardo, required scientific examination and documentation of rock art areas (Arcà, 1994).

So, in 1993 the Piancogno area was discovered by Ausilio Priuli (Priuli, 1993) another important researcher of Valcamonica, who founded the Museum of Prehistoric Art in Capo di Ponte. In the same year, Emmanuel Anati and collaborators activated a database for rock art recording, the project WARA (World Archive of Rock art) (Citadini & Medici, 2013).

Slowly year by year, all most of the rock art sites have been uncovered: Castagneto, Dos Sottolajolo, Vite-Deria and many more (Arca, Fossati, Marchi, & Tognoni, 2001).

In the new millennium, rock art studies have not remained unaffected by the technological revolution. Photogrammetry and laser scanner start to be applied (Medici & Rossi, 2015).

In this period, the Asinino–Anvòia Archaeological Park (Ossimo), Coren delle Fate area (Sonico), the Corni Freschi Archaeological Area (Darfo Boario Terme) were established, as well as the Archaeological Park of Seradina–Bedolina in Capo di Ponte.

Notwithstanding most of the research have been addressed on Iron Age phase, due to its outnumbering in figures (almost 80% of the total rock art) (Fossati, 1991; Arcà, 1994), in the last years new studies have been focused on the primordial-mid phases of rock art in the valley. There could mentioned for example the studies of Andrea Arcà on the topographic maps for the Neolithic, and the artistic relations between Valcamonica and Maritime Alps during Neolithic-Copper Age (Arcà, 2004; 2013).

At the same time, other promising studies on Paleolithic and Copper Age rock art provide new reading of the old publications. More emphasis is drawn on superimpositions and a detailed recording is pursued with the aid of technological means.

Rock art studies in Valcamonica have been the result of collective work in the passage of the years. Centro Camuno di Studi Preistorici and Cooperativa Archeologica “Orme dell’Uomo”, ever since their foundation have never stopped producing important works every year on rock art, leaving a strong mark of presence in publications and research.

Together with research activities, educational programmes have been developed as well. Laboratory activities, guided tours, dedicated parks are the most significant “products” of a diachronic educational process taking place in an area that encloses one of the greatest collections of prehistoric art of Europe: Valcamonica.

1.2 Objectives and questions of the current study

This thesis is based on the review of previously collected data, fieldwork recording and bibliographic reexamination of excavated remains. It offers a new corpus of information useful to further studies. Focusing on rock art of Neolithic/Copper Age in Valcamonica, it aims to answer to the following questions:

What is the iconographic repertoire of the sites?

What is the chronology of the figures? Or better said, are there different phases in the rock art production of this period?

What are the overlappings/associations between figures and what is the relationship between rock art and landscape?

How the archeological material retrieved from excavations in Valcamonica is related to rock art sites? And also, to what extent can it be helpful for the dating of the rock art figures?

What conclusions could be drawn from the continuities of the rock n.6 of Luine for the Neolithic and Copper Age period?

What kind of relationship can we establish with other Italian or extra-Italian sites?

To answer these questions, this thesis has been organized into seven chapters.

In the first one, after a general and brief overview on the history of rock art studies in Valcamonica, the objectives of this study are presented, together with the questions stemming from them. For the methodology a second chapter is dedicated. The adoption of a multidisciplinary approach had been not only a fundamental element in the perception of the topic but also an expressed methodology to embrace it in its most integrity.

Before the discussion of rock art evidence, a general presentation on the occupation phases of the valley from Palaeolithic to early Copper Age is provided, including references to excavated archeological record. Without attaining to search meticulously for geographical distribution patterns, spatial arrangement of sites has been taken into consideration on the base it could formulate meaningful interpretations and contribute to more reliable view of the past.

Chapter four instead is dedicated to rock art sequences. It begins with a short presentation of the major chronological models followed today for the study of Valcamonica rock art, as represented by the scholars who proposed them: Anati and De Marinis-Fossati. This brief opening on chronology, has been considered an important and necessary step for the comprehension of the main discussion of the subsequent 4.2 and 4.3 paragraph by the reader. The chapter will be concluded with an overview of the megalithic phenomenon in the Valcamonica rock art in 4.4.

In particular, the Neolithic and Chalcolithic rock art sequences and repertoire in the valley, will be represented with examples principally taken from the Luine (Crape r.6) and Paspardo area (In Valle r.9). Paspardo's morphological (in a higher altitude than that of Luine) and territorial (deeper in the valley) location, provides a variety of landscape possibilities in examination. As a confront to this area but also for its own merit, rock n.6 of Luine has been chosen as an ideal example for the purposes of this study: it is the rock with the longest rock art sequence in the valley so far, therefore integrating both a continuous chronological and thematic field of study. Aside the artistic evidences, the test pits dug by Anati and his group in Luine between 1968 and 1970 and by *Soprintendenza per i Beni Archeologici della Lombardia in 1999* have brought to light an interesting ensemble of material, that secure a more relevant context to the engravings and the period of their execution. However, despite the landscape divarication existing between the two major areas of study, Paspardo area disclosures similarly not only interesting archeological material recoveries related to the historiated rocks (such as the axe of Vite), but also substantial rock art sequences starting from Neolithic. The combination of all the aforementioned parameters was taken into consideration for the final selection of sites.

Indeed, chapter five is dedicated to the elaboration of two indicative examples of rock art sites: Rock n. 6 of Luine and Rock n.9 of In Valle, Paspardo. Finally, a complete presentation of all the collected data is discussed in chapter six, summarizing the conclusions of this work in chapter seven.

Chapter 2: Methodology

The methodological approach for this thesis has been set under a multidisciplinary line, comprised of theoretical and practical work.

The theoretical part involved the study of previous works and documentations of rock art sites, settlements and published studies of archeological material. For the chronological and cultural attribution of the information retrieved, stylistic periodization and confronts has been consulted.

For the practical part of the research, visits to the field have been taken place, and supplementary, digital tracing. During fieldwork PVC sheets and markers of various colors have been used to document the rock surface, after it has been examined with natural and oblique light for a more accurate reading, as well as check for eventual new evidence. In the terms of a more substantial documentation in the practical part, it was initially also attempted the study of archeological material from close, but due to difficulties of authorization, the study has been restricted to a theoretical and bibliographical overview in this part.

Taking into account the questions of research, two rock art areas have been chosen for the comparison of Neolithic – Early Copper Age rock art stages: Luine (lower valley) and Paspardo (middle valley). In order to achieve a more reliable reconstruction of past realities, I applied both horizontal and vertical examination:

1. longitude and altitude of sites in the valley area;
2. horizontal chronology, as well as vertical which is defined in relation to previous and immediate posterior rock art layers.

Unfortunately, unlike archaeological excavation with stratigraphy, in rock art it is rarely possible to obtain indisputable realities in two axes due to the different nature of the object. Chronological and cultural attribution comes through relative dating and comparisons to well dated excavated material. Also, the peculiarity of the Valcamonica case is that direct dating is not possible to apply because it is about engraved rock art (pecking, incision) in contrast to the painted rock art where in the cases of organic material included in the pigment a date could be provided. Therefore, in our case the notion of comparative sequences (stratigraphical and rupestrian) has been given more weight. The archeological material citations have been used additionally to establish more direct references and provide safest contextual background.

In order to review the feasibility of the above criteria supporting the needs of this work, a search for an area that provides altogether the necessary data has been carried out. Rock n.6 of Luine has been immediately considered as an ideal example, for a number of reasons: Luine is an excavated area on the right orographic side of the low – mid valley. In its territory, R.6 contains a very long sequence of engravings already from Upper Paleolithic consenting me a reconstruction with continuities, and provides examples of all thematic units encountered in Valcamonica rock art. On the other hand, R.9 of Paspardo (In Valle) has been chosen, for its important graphic stratigraphy and its rich thematic record of Neolithic rock art.

The second parameter relevant to the selection of sites was landscape and an adequate comparison for Luine area, in order to secure greater objectivity in the samples and provide a wider frame of possibilities for further results. At a high altitude and deep location in the valley area, of specific rock art interest for the study of Neolithic/Early Copper Age, with interesting material findings and long sequences, is Paspardo, which is on the right mid-upper side of the valley. The best reference to provide valid comparisons.

As also studies have shown (Arcà, 2004; 2013), I believe that the rock art phenomenon in Valcamonica is believed to be inscribed to a wider context of sociocultural and other dynamics taking place. Therefore, some comparisons in a thematic and chronological frame were integrated too.

Differently, for the archaeological site selection, not any special pattern has been followed, because it was a different situation. The majority of sites present stratigraphical issues and thus only the better excavated ones, especially when radiometric dates are included, were considered adequate for the capture of safer horizons for the research. Of course, not all of them present uninterrupted continuities. However, their location and/or the excavated material was considered important to entail them in the current study. Finally, important findings that can be indicative for the chronological horizon considered for this thesis come also from superficial collections, e.g. polished axe from Vite-Paspardo (Arcà, Ferrario, Fossati, & Ruggiero, 1996; Fossati, 2007) (Fig.5). However, since they lack a stratigraphical definition, they were not encountered considerable to create a chronological horizon.

The sites included in this thesis are: Civitade Camuno, Castello di Breno, Breno Piazza Ronchi, Riparo Il Foppe di Nadro, Cemmo (Pian delle Greppe), Provaglio d'Iseo, Torbiere d'Iseo, Cascina Valmaione, Malga Rondeneto, Laghetti del Crestoso, Rovato (Stazione Vissone superiore), Lovere (Colle di Lazaretto), Coren Paga (Rogno), Dos Dell Arca, Paspardo, Lava di Malonno, Berzo Demo, Ossimo (Anvoia, Passagrop, Pat), Borno, Bagnolo (Malegno).

Some of them are excavated sites while others are rock art locations, and each category presents a different set of spatial distribution on landscape. The type of rock art sites consists in open-air rocks, boulders and statue stelae. Conversely, excavated sites, are represented by open air settlements and shelters. There is a small number though, that combine excavated areas or archeological material in proximity to rock art panels, such as Luine, Cemmo, Dos dell' Arca, Paspardo (Vite), Ossimo area.

Multimethodology, apart from a personal approach, clearly results from the needs of this study but also reflects well the complexity of the topic, stressing in the meantime the many different aspects of human nature.

After having sketched the general idea of the work, several problems had to be pointed out, starting from the selection of sites. First, the richness of Valcamonica rock art sites to examine all the possible criteria in order to select the locations that would crosscheck in all the parameters taken into consideration of the thesis. After the selection, extended bibliographical research has been carried out to retrieve as much information as possible, but it has not been an easy task. Most of the studies include old publications or brief reports with one two photos in black/white (or none) and usually followed only by drawings of the archeological material. The difficulty to gain access to study archeological material, has created a gap that was completed by the study of publications of previous authors.

Chronology

Chronology has always been a thumb in the Valcamonica rock art and when figures were chronologically attributed in the distant past, this was not based on methodological or scientific criteria. It was in 1957, when Emmanuel Anati arrived in Valcamonica and later founded the Centro Camuno di Studi Preistorici, that systematic recording and analysis were finally undertaken. His greatest contribution rests on the creation of a comprehensive methodological approach based on the understanding of different layers of engravings on a chronological sequence. In this way he proceeded on a classification of figures after a definition of four main styles (I-IV) in a periodization chart that provided the base of all the following updates (De Marinis, 1994; Fossati, 1991).

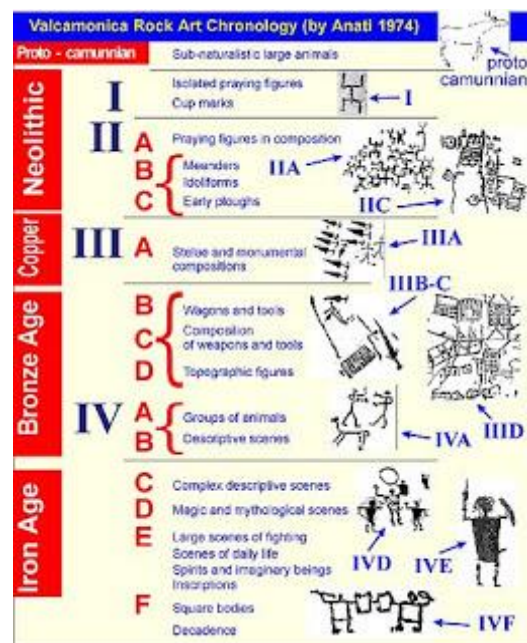


Fig.1 Table of chronology of Valcamonica Rock art according to the stylistic seriation proposed by Anati.

The attribution of the phases was succeeded after consultation of archaeologically dated objects, principally metal weapons.

According to his proposal (Anati, 1975), Valcamonica rock art was grouped into different 4 styles:

1. Style I - Neolithic - oranti (praying figures),
2. Style II - Neolithic – praying figures - dogs - maps – idoliforms,
3. Style III Copper Age (statue stelae, monumental compositions, daggers - axes - halberds, deer - dogs - cows - wolves) and Ancient - Middle Bronze Age (daggers - axes),
4. Style IV Late Bronze Age (schematic anthropomorphs) and Iron Age (the 80% of Valcamonica rock art, standing warriors, duels, riders, hunting scenes, huts, etruscan inscriptions, footprints...) (Arcà, 2001)².

Sub-phases were recognized such as style IIIA - B - C - D (Bronze Age) (Fig.1).

“The style indicates the recurring characteristics of the formal expressions not only of a single artist, but also of a school, a specific region or an entire cultural era. [...] Each artist is a child of his own age and the constitutive elements of the artistic forms he creates are the result of the tradition within which he was formed and of the greater or lesser originality with which he re-elaborates and modifies them. The work of art is therefore a historically determined product” (De Marinis & Fossati, 2012, p. 26). Rock art, as a semantic system, follows the laws of symbolic language, where, beyond its expression, an underlying cultural unity is present suggesting the circulation of traditions on a vast scale of time and space (Leroi-Gourhan, 1982, p. 66; Anati, 2014). Therefore, it is not strange to notice a greater prevalence of some figures in the thematic repertoire of each period or some homogeneity of style in every phase.

But stylistic classification always remains a relative chronological system. That means that the chronological barriers in the attribution of figures and the dating are principally the result of stylistic comparison and grouping under the critical eye and systematic work of 21st century researchers. Therefore, the only way to achieve highest precision is integrating different methods, e.g. radiometric datings, paleoenvironmental data etc. However, Valcamonica, despite being one of the most important European open-air rock art area with a long sequence, it is comprised of engravings that cannot provide exact dates. Therefore, the most prevalent methodological approach until today remains stylistic division.

² http://www.rupestre.net/alps/valca_crono.html

As in all relevant chronologies of this type, not all figures are easy to be compared either in archeological material or similarities in between them generally. These are approached principally according to superimpositions, or other better stylistically and chronologically defined figures (De Marinis & Fossati, 2012). One such case is the one of so called Orante (prayer) figure, a motif that is widely diffused in time and space, from Neolithic to Iron Age, from Near East to the western Europe (De Marinis & Fossati, 2012).

Figurative art of Valcamonica is mainly schematic, so complicating the possibility of a clear chronological classification. However, it gradually around Iron Age turns into obtaining more figurative expressions, e.g. IV3 phase.

After Anati, more scholars dealt with the definition of a chronological sequence of rock art production. The most important and more widely accepted is the De Marinis's one.

Since this work deals mainly with rock art analysis, I considered both different chronostylistic models proposed for the interpretation of the human occupation of the valley by De Marinis (De Marinis, 1994) and Anati (Anati, 1975). However, this work has been constructed using the De Marinis model according to which, the late Neolithic horizon spans between ~4000/3900-3500/3400 BC with the main figurative themes be geometric motifs interpreted as topographic maps, and Copper Age 3400/3350-2400 BC for the early phases of Copper 1 and Copper 2, with the main figurative themes: weapons, human figures, animals, various symbols and maybe the first plowing scenes (Casini, De Marinis, & Fossati, 2014) (Fig. 2).

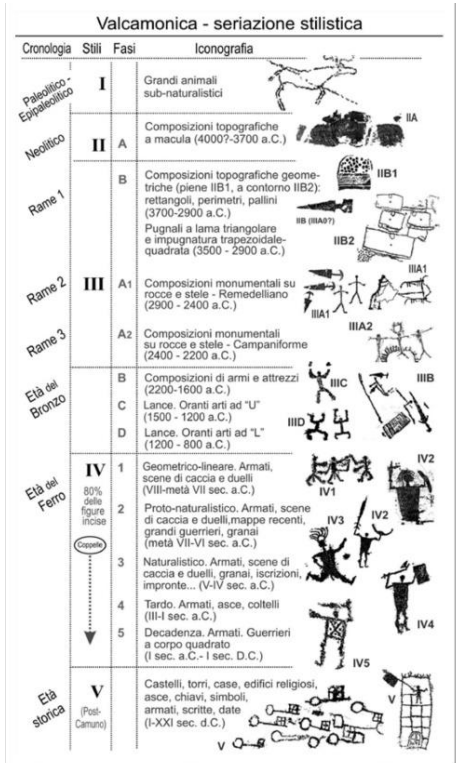


Fig. 36. Seriazione stilistica dell'arte rupestre camuna (elaboraz. A. Arcà 2009, su base ANATI 1972a, DE MARINIS 1988 e 1994b, FOSSATI 1991, ARCA 2005a; rilievi Orme dell'Uomo, tranne IIIB da ANATI 1972a e V da MARRETTA et al. 2007, ril. DipVC)

Fig. 2 Table of chronology of Valcamonica Rock art according to the stylistic seriation proposed by De Marinis/Fossati. (Source: Arca, 2007)

Chapter 3: History trails: Phases of occupation

3.1 The first peopling: Palaeolithic Mesolithic

Palaeolithic collectors and hunters

The earliest evidence of human groups in Valcamonica is witnessed by some scattered finds, dated to the Epigravettian phase, soon after the retirement of the glacier from the low valley, c. 16.550- 15.550 cal BC (Ravazzi, Badino, Marsetti, Patera, & Reimer, 2012). At around 14.050- 13.350 cal BC the whole valley was already free from the ice (Pini, et al., 2016).

The landscape deeply changed during the interstadial Bølling-Allerød (12.750/12.350 -10.750 cal BC), with the accumulation of peat (peat initiation) and other biogenic sediments of open lake waters in the low Alpine up to 1800 m a.s.l and sharp rise in the tree line, reaching about 1700 m a.s.l., indicative in Passo del Tonale, north of the Adamello massif (Ravazzi et al., 2007). An increase in forest density with the foothill forests presenting variable composition with dominance of *Pinus sylvestris*, *Betula*, *Juniperus*, *Larix* in the Western and *Pinus sylvestris*, *Larix*, *Picea*, *Betula*, *Pinus mugo* in the Eastern Alps is also noticed (Ravazzi, Peresani, Pini, & Vescovi, 2007).

The most secure information for Palaeolithic peopling, come from the base of a hut with probably wooden sustainers at Cividate Camuno- Via Palazzo (308m. a.s.l) that provided a date of 13,805 ± 440 BP (Keller, 1988-1989) and Epigravettian lithic industry (Keller, 1988-1989; 2004). Lithic tools which included small end scrapers and flakes, were found sparse within the round area of the hut (Keller, 2004). The associated fauna was represented by teeth and bones of deer, roe deer, ibex and fallow deer (Keller, 2004). The subsistence of those Palaeolithic groups would have been based principally on hunting for the procurement of meat, fur, bones and on the collection of natural food resources, i.e wild fruits.

Lower in the valley, at the well excavated site of Breno castle (353m. a.s.l), an upper Palaeolithic level was recovered in the BC3 area. It was characterized by the presence of some hearths and few lithic instruments (Fedele, 1988).

Despite Passo del Tonale was already free from the glacier at 12,275±115 BP (Baroni, Carton, Ravazzi, & Speranza, 1996) no late upper Palaeolithic sites have been found so far neither at high nor at low altitudes in the valley apart from Breno and Cividate Camuno, both from valley bottom (Biagi, 2003). The available data witness scattered human presence during the interstadial after the deglaciation. However, even in this case, no permanent habitation in the valley has been attested so far.

From the climate deterioration during 10.850 - 9.750 cal BC (Younger Dryas) to the Holocene onset, there is a gap of data on human presence. During this time, a lowering of forest limit is noted to 1500 m a.s.l with an expansion of xerophytic vegetation and grasslands in mountainous and subalpine belts (Ravazzi, Peresani, Pini, & Vescovi, 2007).

The enlargement of the Iseo paleolake in this period may have favored a suitable habitat for those elks that were even etched in the big Rock No.6 of Luine and whose presence in northern Italy is confirmed up to the early Holocene (Breda, 2002). More cervids, specifically deer figures, are associated with the most ancient rock art phase, like the big one with the disproportioned head on rock n.6 and the one with the turned head on rock no. 34. In the latter the presence of the antlers is evident with the use of oblique light so excluding the interpretation of an equid figure done in (Martini, Baglioni, & Keller, 2009). Rests of a hearth, estimated in a moment a bit subsequent to the retire of the glacier (pre-boreal/beginning of Boreal?) and two dubious incisor tools have been documented on a test pit from the site of Luine (Anati, 1982).

Mesolithic hunter gatherers

After the end of Younger Dryas, at 9.750 cal BC, a climate amelioration inaugurates the Holocene interstadial, with a progressive dryness and temperate conditions in the beginning, while gradual warming, leads to a timberline rise in the Alps, reaching even 2400-2500 m a.s.l in the more inner zones (Pini, et al., 2016). This continental climate ends at 6.250 cal BC with the onset of the Atlantic characterized by more moister conditions (Tinner & Ammann, 2001).

Wooden scenery characterized the landscape. Vegetation in the Preboreal valley bottom was dominated by *Pinus sylvestris*- *montana* and for medium-high mountain areas the forest was characterized by larch (*Larix*) and pine (*Pinus*). Gradually towards the end of the Preboreal, *Picea* increases while the tree limit exceeds the current one (Pini, et al., 2016) and becomes replaced in Boreal from mixed oak and hazelnut wood (Fedele, 1988; Drescher-Schneider, 2009).

Mesolithic people's diet was principally based on hunting of animals and fishing on the sites close to water resources. The collection mollusks of sweet water, turtles, eggs and fruits (hazelnut, chestnut, blueberries, strawberries) was completing their alimentation (Baioni, 2012). The hunted fauna presents an increase of deer, roe deer, wild boar, ibex, chamois but there were not lacking though other animals of medium and low stature (Biagi, 1990; Baioni, 2012).

Climate changes in the transition to Mesolithic occurred with a population growth, and a shift in the technology and settlement patterns (Genick, Preistoria, 2009; Riede, 2009; Scarre, 2013; Oosterbeek, 2017). In terms of technology, Mesolithic experiences a shift, marking characteristically each of its chronological divisions, ancient and late, translated into two technocomplexes, Sauveterrian and Castelnovian. The tools are distinguished by their microlithic dimensions that apart from allowing great accuracy, could be fixed in various ways on wooden supports to create more effective weapons and instruments. In early Mesolithic (Sauveterrian) predominate more triangular shapes while in late Mesolithic (Castelnovian) trapezoidal and rhomboid (Broglia & Lanzinger, 1990; Fontana, Duches, & Flor, 2015). Technological shifts were also related to the introduction of new knapping techniques (indirect percussion, pressure, and microburing) (Fontana, Duches, & Flor, 2015), and a more distinct specialization of instruments (weapons- common tools-heavy duty tools) for the various activities (fishing, hunting..), suggesting greater social complexity than Palaeolithic societies and subdivision of labor activities, presupposing conceptual modifications and revised subsistence strategies (Scarre, 2013). Mesolithic weapons have been proved an effective technological advance, rendering successful the distance hunting, adapted to the forestall environments. Technology in bone still continued from Paleolithic.

In the Alpine region, the transition to Holocene was also marked by a synchronous frequentation of various altitudes, both high and low. This alternation in the beginning of Mesolithic is inscribed in the groups' strategy to exploit various ecotones and resources from their base camps (Broglia & Lanzinger, 1990; Fedele, 1999). While no real base camps have been recovered in Valcamonica, a radiometric date from a sequence overlying the Late Epigravettian horizon of Cividate Camuno (285m a.s.l) at 8232-7641 cal BC (Keller, 2004) is almost contemporary to the high altitude Malga Rondenetto 6080-5556 cal BC , a site located at the ecotonal belt between the upper tree line and the alpine open landscape (Biagi & Starnini, 2015), suggesting a settlement strategy that considers a practice of movement between low and high altitudes (Biagi, 2003) probably seasonal.

Models of anthropization of Valcamonica landscape present characteristics of differentiation from other alpine regions (Broglia & Lanzinger, 1990; Biagi, 2003). Differently from the hunting camps discovered in other valleys set mainly in medium-low altitude, information for late Mesolithic occupation in the valley (Castelnovian) comes from mid-high altitudes -up to 2000 m a.s.l (Broglia, 1993; Biagi, 2003; Baioni, 2012; Pini, et al., 2016): Laghetti del Crestoso (2001m a.s.l) (Val Trompia) 5909-5482 cal BC/ 5896-5631 cal BC (Biagi, 2013), Dosso dell'Asino (1770 m a.s.l), Pozza (Stanga di Bassinale, 1861 m) Valmaione 2,

Stanga di Bassinale, Sella di San Glisente, and Monte Colombino (Berzo inferior), and a good number of evidence from sheltered sites of lower quotes located close to water resources: Riparo Valtenesi of Manerba, Riparo Cavallino of Villanuova Clisi, Rockshelter2 Foppe di Nadro (526m a.s.l) (Biagi, 1983), Provaglio d' Iseo and Torbiere d'Iseo (185m a.s.l) (Biagi, 1976). Spatial distribution patterning and the selection of sites was strategic and movements would have followed different directions along Mesolithic as stressed by Biagi (2003), conditioned by subsistence strategies and an intensification of good quality raw material outcrops for the extraction of flint (Barfield, 1999; Fedele, 1999; Biagi, 2013). Studies on lithic tools show that Lombardy formations whose closest known outcrops are south to Iseo Lake (Mt. Alto) and south-east of Garda Lake, as well as Veneto and Trentino ones, were well known to the people inhabiting Valcamonica (Biagi, 2013; Martini, Baglioni, Magri, Mazzucco, & Keller, 2016; Martini, LoVetro, Timpanelli, Magri, & Keller, 2016). Chert and quartz from Lombardy pre-Alps were also exploited, parallel to flint (Fedele, 1999). Notwithstanding altitude, low (Cemmo, Pian delle Greppe) (Martini, LoVetro, Timpanelli, Magri, & Keller, 2016; Keller, 2017) or high (Laghetti del Crestoso), people were travelling to get the appropriate material to knap their tools, staying in connection with various territories in the alpine zone.

Overall, the preferential settlement pattern seems more affine to mid- high altitudes (Broglio, 1993) based to the proximity to lake basins or springs (Baioni, 2012) often in connection to paths that consent transit among the various surrounding valleys with some lower altitude sites in strategic positions either related to raw material provisioning or favoring subsistence strategies.

3.2 Neolithic

Neolithic occupation of Valcamonica is identified starting from Late Neolithic and the settlement pattern lasted for centuries until Iron Age, when a more complex pattern took place, changing the Camunian landscape (Keller, 2017). The significant contribution of research activities led by the Soprintendenza per i Beni Archeologici della Lombardia and research projects held by various scholars and universities during the years, have allowed to bring to light a series of important sites: Lovere, Breno castle, Coren Paga, Cividate Camuno_via Palazzo, Cemmo (Pian delle Greppe), Luine (Darfo). However, albeit archaeological excavations, the onset of Neolithic in the valley remains obscure, due to the lack of data that remarks the hiatus from late Mesolithic. The absence of archaeological record in Valcamonica³ dating to the early and middle Neolithic, which is characterized by the pottery culture VBQ (Vasi a Bocca Quadrata, Square Mouth pottery) I and II, oppose the numerous findings belonging to the recent phases, i.e. VBQ III.

The Italian Neolithic is generally dated between 6100/6000 to 3800/3700 BC (Pessina & Tinè, 2008). The Neolithization process is considered as a global transformative process that includes some common trends, i.e., population growth, ecological adaptations, growing sedentism and economic intensification, together with growing interaction (trade and social prestige), technological innovations and ideological main changes (Pessina & Tinè, 2008; Scarre, 2013; Oosterbeek, 2017). The times and the mode of this process may vary from region to region based on the integration processes that each society establishes, resulting in a mosaic of groups and networks following converging adaptive strategies but different between them (Oosterbeek, 1995). Therefore, not all the aspects may appear at the same time in the same place, but can be recognized in part, witnessing the Neolithic process in course.

In that sense, it is not strange to encounter more traditional strategies such as hunting, existing in Neolithic in terms of the adoption of versatile lifestyle. New economic strategies related to sedentism gradually create a village dwelling model that sets a new organization of territory that together with the intensified working of land set a modification of landscape, marking transformations on the notion of space (Oosterbeek, 2017).

In the paleontological Italian literature, when referring to Neolithic questions, the *terms culture, facies, groups, aspects* and *style* are variably used, when cultural entities of the same level are defined. It could

³ Sites attributed to the beginning of Neolithic come from the broader brescian area (Roccolino Schiave in Gavardo, Cà dei Grii cave in Virle, Rocca di Manerba, Nave località Mulino), and Torbiere d Iseo some lithic tools (Odone S. , 2001)

be summarized as (Pessina & Tinè, 2008, p. 37) describe it: “...for the facies is intended a determinate complex of typological elements (principally of pottery in Neolithic), shared with a number of archeological excavated contexts. The eventual internal subdivisions, on the base of geography, of the archeological facies are represented by groups, meaning by territorial realities in which common typological elements consist the majority respect to those divergent”. This terminological uncertainty, has not been considered appropriate or possible to modify in this thesis, therefore it has necessarily been used but reduced in the least possible.

In Valcamonica, the oldest date confirming the presence of Neolithic groups comes from Pian di Gembro and a cereal pollen, dated to 6.000 cal BP, which is coherent with the carbon-date of 5898-5302 cal BC (Pini, et al., 2016) obtained from the excavated site of Lovere, on the northwestern coast of the Iseo lake (Keller, 1999-2000, p. 302). The archeological excavations have revealed a society of a versatile economy involved in the cultivation of land, herding of some domesticated animals, but also hunting wild fauna, fishing, capturing birds and collecting fruits (Fedele, 1988; 2000; Keller, 2017).

The climatic conditions (Fedele, 1988; Pini, et al., 2016) during the Atlantic stage, favored the expansion of deciduous trees with oak the most prevalent and medium-slope conifers. Oak pertained during the whole Neolithic. The distribution of trees was different within every geographical area but in general terms, flora hazelnuts (*Corylus avellana*), wild grapes (*Vitis vinifera sylvestris*) wild berries (*Cornus mas*) apples (*Malus sylvestris*), bladder berries (*Physalis alkekengi*) blackberries (*Rubus fruticosus*), raspberries (*Rubus idaeus*), hawthorn berries (*Crataegus sp.*), strawberries (*Frangia vesca*), acorns (*Quercus sp.*), elderberry and danewort (*Sambucus nigra/racemosa*; *Sambucus ebulus*), water chestnut (*Trapa natans*), mushrooms, and other various herbs were setting the flora scape (Fedele, 1988; Mottes, Petrucci, Rottoli, & Visentini, 2009). Many of them, if not all, were representing also the natural landscape in Valcamonica where noteworthy is the recovery of nuts (*Juglans regia*) in the site of Breno (Fedele, 2000). Object of cultivation already from the early stages in Valcamonica had been farro, einkorn, peas, broad beans and barley (Fedele, 1988). The production economy introduced by the Neolithic cultures extended the spectrum of food resources, unbinding the human groups from the exclusive collection of spontaneous resources.

Later phases of middle and later Neolithic in Northern Italy saw no special modifications on cultivated cereals but only an increase of collected fruits (maybe indicating an evolution of the techniques of conservation and transformation of the products) and the appearance of linen and poppy (Pessina & Tinè, 2008). Early agriculture had to be concentrated on lighter soils at first, involving the use of wooden

or stone tools_(Arcà, 2007; Pessina & Tinè, 2008; Oosterbeek, 2017). Using this technique, in order to sustain an equilibrated productivity, moderated so as to cover the needs of each society in respect to the available resources, the occupation of more extensive surfaces must have been required.

In this context the so-called *maculae* engravings might appear, as the most ancient Neolithic rock art topographic motif indicating the first cultivated areas (Arcà, 2007). The regulation of large areas and the emerging need for production increase, would lead to an increasing land domination/control and intensification of terrain and natural resources exploitation, pushing consequently for a (r)evolution of the productive techniques: e.g. deforestation and the adoption of polyculture probably in the same area or mixed fields, other practices for more effective water dissemination and control, arousing at the same time different coordination at a social level.

A variety of objects have been conferred to the various processes of cultivation in the valley such as sickles in wood handles and flint blades for the sowing and harvest of plants. Growing specialization and technological know-how arise introducing new challenges and dilemmas to face, but also account for the extension of life expectancy (Oosterbeek, 2017). On the other hand, the perception of importance of strategies construction and their execution provided humans the necessary space for realization of his own responsibility in life and the consequences of his actions and reactions. With the achievement of more effective landscape management and production equation, demographic growth is observed and bigger dwelling clusters, “villages”, emerge as a consequence (Pessina & Tinè, 2008; Oosterbeek, 2017).

In Valcamonica, we have indications that Neolithic people used to build rectangle houses where allocation of everyday tasks was spatially distinct, and they were equipped with the craftsmanship of wattle and daub (Fedele, 1988). One such example is the Breno site consisting of several structures spread on the top of the hill, the most remarkable of which the BC3 building that provided space for cooking, hearths, etc. (Fedele, 1988) (Fig.3). Of course, other activities must have taken place outside.

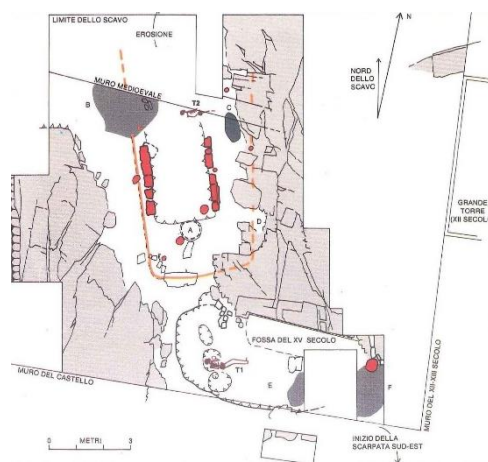


Fig.3 The Neolithic BC3 building of the Breno castle site. Source: (Fedele, 1988)

However, “real villages” have not been discovered yet. The perception of the term in this case, is envisioned more as a composition of 3-4 farm houses, sparse but in close proximity to a spatially delimited area (top of the hill here), maybe accompanied also by additional structures (Fedele, 1988).

Therefore, the “village” is not only a reference to the constructive capacity of the locals but also a cultural and even social expression; the way a society structures, reproduces and negotiates its relations, under processes of natural material transformation (Pessina & Tinè, 2008). In this line, house could assume sociocultural and symbolic extensions maintaining a central role in the processes of transformation, based on the “domestication” of the society and the creation of larger social units (Hodder, 1990). Excavations have revealed remnants of habitation structures such as those from Cividate Camuno_via Palazzo (Keller, 2004) or Coren Paga (Ferrari, Pessina, & Visentini, 2001). In other sites, such as Dos dell’Arca, no real habitation structures have been confirmed but only some layers of trampled earth and references of superficial collections (Anati, 1968) while recently, some pottery sherds were attributed to Neolithic tradition similar to Coren Paga with Epi-Rossen influences, but of problematic context (Rondini & Marretta, 2019). Unfortunately, even though Dos dell’Arca is the only site denominated as settlement in relation to engraved rocks dated to Neolithic in its immediate context, for the moment it can only verify with certainty an existence of human presence.

Landscape, apart from providing favorable areas for habitation, whose systematic exploitation resides back to Neolithic, has been proved a critical parameter for the long-term establishment of the Valcamonica people. Woods and rivers, were providing already from prehistoric times excellent raw material for the fabrication of tools for the processing of products: stone hand grinders for the grind or shredding of grains, barks and leaves, even the preparation of flour. Millstones, hammers and cleavers, axes, ladles for pitch birch are also some other instruments. Woods on the other, supplied poles, trellises, shafts for arrows and harpoons, trunks for pirogues, handles, barks, wood to be burned, resins and glues (Fedele, 1988). An interesting finding of an imprinted woven mat of vegetable strips on the base of a recovered recipient has been discovered in Breno, revealing early activities of weaving (Fedele, 2000). Indeed, in BC3 building of Breno weaving at least in the beginning of linen or nettle was taking place, confirmed additionally by some discs from terracotta from the same site. Similar spindles are also known from the site of Coren Paga (Rogno) (Ferrari, Pessina, & Visentini, 2001). The processing of instruments from soft material continued from Paleolithic and Mesolithic times, documented by the assortment of tools of bone and antlers of deer including axes, chisels, perforators, lèsine, flat needles (Fedele, 1988).

The Neolithic economy was based in agriculture, collection of fruits, fishing, but also hunting and herding, while the renovation of nature made available wide areas ideal for animal pasturing. Herding is well documented from the faunal remains from the sites of Breno and Coren Paga (Priuli, 2004-2005;

Fedele, 2004-2005). The breeding included goat, sheep, oxen, pigs, and the domestication of dogs. Subsistence strategies were supplementary based or reinforced by the hunting of deer, brown bear, chamois, small carnivores and occasionally other animals e.g. fox, and birds. For Neolithic herding information on the dimensions and the age of death of animals demonstrate that animals were purposely herd also for their secondary products (Pessina & Tinè, 2008). Large and small fish were caught with harpoon or some kind of traps from the river (Fedele, 1988; 2000; Priuli, 2004-2005).

The establishment of closer bonds with nature through proximal attention of seasonal cycles and the reconsideration of flora-fauna under systematic practice and trial mechanism experienced through the cultivation of land and herding, modified man's notion of time- space -cause pushing him towards an acquisition of personal and ecological awareness. Technological innovations e.g. the advent of plow towards the end of Neolithic, accelerated the process of transformation and change, and new techniques facilitated the comprehension and recording of the processes mediate sensorial physical experiences. At around the end of the IV millennium/beginning of III^d the first plowing scenes appear engraved on the surfaces of rocks and erratic boulders.

The multitasking way of life and the great adaptation capacities of the Neolithic Valcamonica people were well reflected also on their lithic tool equipment. Different methods of stone tool production, grinding or polishing start to prevail. They were capable of extracting various resources from the local environment: pebbles from the nearby banks of Olivo River and wood from the forests, but also flint probably from the lower valley outcrops. Stone tools were principally represented by perforators and arrowheads but the overall aspect gives the impression of an adequately equipped kit: scrapers, awls, drills, cutting and harvesting knives, weights, axes, blades for the sickles, awls, scraper, arrowheads, transversal foliate arrowheads. Their characteristics could be attributed as a combination of VBQ III and (Chassey-) Lagozza influences (Fedele, 2000; Pessina & Tinè, 2008). An evolution of hunting weapons (e.g. arrowheads) indicated that even though agropastoral activities were already settled, hunting was still maintaining an important role. Late Neolithic moments manifest a numerical reduction on lithic tools especially in respect to previous stages, maybe due to changes of interest towards new raw material, e.g. metal (Visentini, 2006).

As above mentioned, an attestation of Neolithic presence before middle-late Neolithic in the valley has been difficult to identify⁴. The moment after this chronological limit, corresponds to the cultural aspect

⁴ An exception is the material unit attributed to Ancient Neolithic by R.P Keller from the site of Lovere US4 (Keller 1999-2000 p 304-306) comprised of fragments of inornated pottery, one blade of gray flint, and two bone

of VBQ III, “Incisions and Impressions” pottery style dated to 4500/4300 –3800/3600 BC cal., based on the stratigraphy of the site of Isera la Toretta (TN) (Pedrotti, *Il Neolitico*, 2001; Mottes & Nicolis, 2002).

A diversified and articulated chronologically and geographically pattern characterizes Late Neolithic of northern Italy, especially in its final stages, is identified principally in the archeological material especially pottery, which in some cases assumes exotic influences (Visentini, 2006). Valcamonica is characterized by mixed cultural contexts comprised of VBQ III (~4100-3700 cal BC), (Chassey-) late Lagozza (3790-3340 cal B.C) (Visentini, 2006), and the Breno aspect (~4200-3800 cal B.C) (Fedele & Odone, 1999). Many times, some North Alpine culture influences are distinguishable too. On the basis of its attributes, Neolithic pottery is distinguished in two big categories of coarse and fine ware.

The most prevailing is the Square Mouth pottery style, (4900/800- 3800/3600 BC cal BC) (Mottes, Petrucci, Rottoli, & Visentini, 2009; Odone & Tirabassi, 2012) in its third (and final) phase denominated “Incisions and impressions” or Rivoli Castelnuovo (~4500/300-3800/600 cal BC). It is verified in the majority of sites: Breno, Coren Paga, Civate Camuno, Luine and probably some sherds in Cemmo Pian delle Greppe (Keller, 2009) and its geographical distribution extends in the areas of eastern Lombardy, Veneto and Trentino. Among the most characteristic recipients are the vases and bowls of four spouts, or with rounded mouth and big recipients of coarse ware with plastic decoration with embossed cords (Visentini, 2006). The decoration is obtained with the incision technique and impression, reproducing linear geometric motifs (zigzag bands, triangles, fish spine, embossed points, and notched impressions) more often under the mouth.

Some (Chassey-) Late Lagozza influences would consist to the presence of pintaderas, Pan’s flute handles on pottery recipients, or flint tools e.g. arrowheads, transversal arrow heads, blades and bladelets preferably made on pre-Alpine raw material, loom weights etc. (Pessina & Tinè, 2008).

Both VBQ III and (Chassey-) Lagozza have reached outer Italian contexts, until Kanizianiberg South Austria (Pedrotti, 1990), letting possible the definition of a perdurable network of relations and trade with Northern Italy, established maybe even before the final VBQ phase. The first documentation of metal working in Northern Italy, come from Chassey Lagozza contexts, Botteghino near Parma at 4.300 BC and objects from Bannia - Palazzine di Sopra (Pordenone) (Visentini, 2006; Bartelheim & Pearce, 2015).

elements, that according to the author assimilate the first Neolithic Padano-alpine or the Ligurian impressed pottery (on the west) or Vho culture (central Italy).

The most distinctive aspect of the valley, denominated by the local site of Breno where it consists its most numerous component, is the so called “Breno black” pottery (Fig.4). It emerges as a regional



Fig. 4 The Neolithic pottery of Breno. With gray, the "Breno Black" recipients. Source: (Fedele, 2000)

entity, present also in the sites of Coren Paga (Rogno), Cividate Camuno and spread to the Brescian pre-Alps until the Lake Garda's west bank. It is identified in the Bergamo pre-Alps to the west and less to the Mantovan area.

More extended have been the contributions of Odone and Fedele on Breno pottery (Fedele & Odone, 1999; Fedele, 2000): “Breno black” pottery, is an accurately baked ware with lucid surface with fine and depurated ware, thin walls often smoothed with spatula. The neat finish of the pottery products of this style leaves an overall impression of very skilled craftsman with good knowledge of fire control. The color obtained with baking in a reduced environment reflects dark brown-gray shades, therefore denominated conventionally “black” ware. Shapes are mostly represented by bowls or cups of sinuous profile. The decoration is very distinctive in terms of inventiveness and regularity and reveals relations with the regions across the Alps such as Einstich of Epi-Rossen tradition, or Rossen cultural patterns e.g. triangles-filled triangles, arches, points, of regions between Southwest Germany and Switzerland. Other

decoration motifs include profound signs of C, S, U, of symbols “a pettine”, circular/discoidal shapes, wavy lines, cupels, comet motif, grain impressions and feather motif. Execution is stylized, distributed in controlled and rigorous compositions of linear sequences, bands, isolated groups, more or less complex or of other type in the superior part of the vessels. There are also fewer examples of undecorated vessels. Next to the Breno Black, a similar to morphology, modelling and decorative style but not in color is the “Breno white” pottery. It is characterized by a reddish or brown-reddish color on the walls indicating a different baking process. This elegant “Breno pottery” was distinctive for recipients of smaller dimensions than those of coarse ware, and their open shapes make it more possible to be dinner pottery (*ceramica a tavola*) or other special social occasion than of domestic use (Fedele & Odone, 1999; Odone, 2000).

Shapes of fine ware include bowls of sinuous profile or distinctive wall, bowls with handles, dishes with flat brim, cups with strap handles, hemispherical vessels with more or less continuous base wall outline.

In general, as described by Visentini (Visentini, 2006, pp. 232-233) the pottery of Late Neolithic repertoire is constituted by of coarse ware and more rarely medium, with decoration almost exclusively plastic on wet clay. Typical are the shallow bowls with a convex bottom and other more profound with decoration under brim in the form of digital impressions and bosses. Beside bowls the rest of recipients could be entailed generally in a category of big profound shapes for storage. Of course, this classification is not standardized and is submit to variations. The most frequent plastic ornamentation is the embossed cord, more rarely those smooth. In Breno, where pottery is known also as plastic “a stampiglia”, recipients bring stag and drag, nail impressions, oval circular marks made with the ends of straws and corn stalk impressions, across the recipients’ body usually in parallel rows of small lugs, pommels, hollow bosses, or cordons (Fedele & Odone, 1999). A variation is a series of parallel cords punctuated with digital impressions. On the walls, very often are embossed cords and pastilles with central depression, more rarely conical distributed in disordinated way on the body (Visentini, 2006).

Not all aspects of a society’s cultural life are providing rich information. Burials from Neolithic are less known in Valcamonica. Two tombs, one from the denominated “south area” of BC3 of Breno site (T1) and another in the zone north of the house building (T2) can be attributed to this period and exhibit an original character (Fedele, 2000). Both are of the same alignment (feet to the East and head on the West), with deposition of the body to the left. Due to some attributes (burial, sparse prehistoric human remains, principally teeth of both adults and children etc.) the “South area” where the T1 was found, has been attributed a special importance by the excavators, probably of a ritual-funeral character

(Fedele, 2000). In addition, apart from morphological traits the zone was also spatially differentiated. Its structure in oval and flat pit, separates it from the rest of the habitation area. In its bounds, the body of burial T1 was laid in a small hole holding a pottery vessel of “Black Breno” on the hands close to the face. Before its burial small hearths have been lighted, and right after the burial the body has been intentionally covered with stone blocks. The second burial (T2), of the same deposition side and orientation unfortunately has been disrupted by the construction of the medieval wall (Fedele, 2000). Chronologically in terms of stratigraphy the burials belong to a moment of transition, at the very end of IV millennium BC or in a moment immediately subsequent (Fedele, 1988; 2000; Fedele, Terassi, & Passariello, 2010). A synchronicity to a moment of abandonment of a house, labelled A, has been proposed (Fedele, 2000).

The same chronology of transition Final Neolithic-Copper Age has been estimated for the burial of the site of Lovere (Keller, 1999-2000). On the SW slope of the site with an orientation probably N-NE/S-SW and an estimated crouched deposition, the dead was included in a rounded enclosure of stones covered by a tumulus, and without burial goods. Some dispersed objects (awl in bone, a collar element in deer bone) may be related to the burial. The relation of the dead to the habitation structures remains uncertain due to stratigraphical issues (Keller, 1999-2000).

As far as the settlements are regarded, this period of Recent and Final Neolithic (VBQ III and Lagozza culture aspects) is marked also by a topographic dislocation with two prevailing tendencies: expansion and foundation. At the same time a total abandonment of rock shelters and caves, which were often used during the VBQ II, is now recorded. At first a return to open air settlements previously inhabited occurs, setting then pluristratified settlements of long duration (Lovere, Rogno, Luine, Cividate Camuno_via Palazzo, Breno castle) and gradually, more as we go closer to the IIIrd millennium, new sites of previously unoccupied areas and sanctuaries are founded e.g., Ossimo Pat (3654-3521 cal BC) (Keller, 2009). Culturally, late Neolithic, which approximately dates around the second half of IV millennium (Keller, 2004-2005; Keller, Baioni, & LoVetro, 2010), is a moment of a progressive shrink of VBQ pottery and an increase of North Alpine and Lagozza influences. This stage is marked by a search for stability, sense of security and control. A network of occupations is developed from bottom valley upwards, with an increasing interest to sites in high altitude, while a new habitation model in humid areas is introduced (De Marinis & Pedrotti, 1997; Keller, 2001; Keller, Baioni, & LoVetro, 2010). In other regions (Trentino) during this period the habitation of shelters returns (De Marinis & Pedrotti, 1997).

However, it has been chosen to maintain important sites in bottom valley (Cividate Camuno), but archeological data (Rondini & Marretta, 2019) demonstrate also sporadic frequentation of intermediate altitudes in low reliefs naturally defended (Dos dell'Arca). Indeed, criteria of strategic positioning, allowing control and defense, related to fluvial passages, high terraces, naturally defended heights or at least locations easily fortified in some cases, have been pursued for the selection of the sites. For this reason, their extension was rarely exceeding 1-2 ectares (Keller, 2004-2005). This shift may have been motivated by the search for raw material flint and metal, or some changes in the agropastoral activities.

Lovere (Colle del Lazareto)	314m
Luine Darfo	322m
Cividate Camuno	285m
Coren Paga (Rogno)	653m
Breno town, Piazza Ronchi	330m
Breno Castello	353m
Ossimo Pat *	813m
Dos dell' Arcà	464m
Cemmo (Pian delle Greppe)	403m

Table 1. Brief table of Neolithic sites and their altitude (a.s.l). Measurements retrieved from (Pini, et al., 2016).

*on the base of the radiometric dates 3700-3510 BC (Keller, 2009)

Neolithic societies of Valcamonica were living quite an autonomous life, but little we know about their ideological world and religious practices.

Human's reality by the end of Neolithic in Valcamonica was characterized by the cultivation of land and a quest for stability especially from the second half of the IV millennium BC and on, maybe partly due the gradual complexification of life. Both were represented on the exposed rocks in the valley with geometric motifs and topographic maps.

A change in mental schemes is expressed better in the secondary, symbolic interpretation some raw material or lithic tools assume beyond their functional one. The most profound examples are the polished stones and axes (Gambari, 1996). In Valcamonica they may have assumed transcendental value with some link to the aquatic element and possibly even rock art. Polished axes from Monte Berzo,

Provaglio, Lava di Malonno were found deposited close to water resources and one from Paspardo (Arcà, Ferrario, Fossati, & Ruggiero, 1996; Fossati, 2007) also in association to Neolithic rock art (r.36

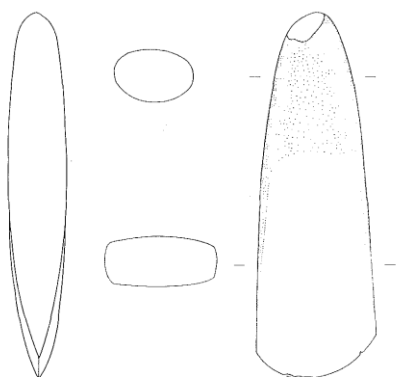


Fig. 5 The polished axe from Paspardo found on R.36 of Vite. (Source: (Arcà, Ferrario, Fossati, & Ruggiero, 1996)

Vite-Val de Plaha). The relation between water, weapons and rock art in Valcamonica is already known (Fossati A. , 2001). According to the authors (Fossati, 2007) the morphological attributes of the axe from Paspardo, place it in a transitional phase between Late Neolithic and Copper Age (Fig.5). The figures of rock art context in relation (two daggers with rectangle pommel and map of *funghi*-mushrooms- type), may

consent this chronological attribution too. The characteristics of its manufacture and the character of deposition, could infer a votive offering value (Fossati, 2007).

One figurine on pebble with feminine semblances with traces of ochre in the belly and navel stressed were found hidden under the western side of the house in the site of Breno (Fedele, 1988). From the same area come also other objects that could belong in the general category of personifications: an elongated stone with a rounded head painted in black color and a betilo (Fedele, 1988). From the South area of BC3 building colorant materials of ochre, limonite and calcite have been found. Generally red ochre accompanied sometimes by other colorants, is quite a frequent finding of sites in relation to rock art (Cemmo, Luine, Breno, Foppe di Nadro, Ossimo), enhancing the possibility that the rock engravings were originally painted (Anati E. , 1967; Anati, 1982; Fedele, 1988; Medici & Gavaldo, 2019). Refilled holes in the terrain of Breno site raise questions whether foundation rites were involved (Fedele, 1988).

In summary, Neolithic Valcamonica presents an image of a community with originality in terms of house construction, tombs, pottery, and ideology but definitely not isolated. The new socio-economic system would affect the artistic production we find engraved on the rocks because first of all in presupposed the transformation of human itself as an individual and a social being.

SITE NAME	SUPPOSED CHRONOLOGY	FINDINGS	AVAILABLE CHRONOMETRIC DATINGS	MAIN BIBLIOGRAPHY
Cividate Camuno, Via Cavour, Malegno	Late Neolithic, early Copper Age	settlement remains (Recent Neolithic), pottery		(Keller, 1988-1989; 2004; Martini, Baglioni, Magri, Mazzucco, & Keller, 2016)
Civitade Camuno_ Via Palazzo	Paleolithic (Epigravettian), ancient Mesolithic (Sauveterrean), Middle Neolithic, Late Neolithic	settlement remains (hut) (<i>Paleolithic</i>), remains of settlement structure on wooden platform (<i>middle/late Neolithic</i>), lithic tools, pottery	13,805 ± 440 BP	(Martini, Baglioni, Magri, Mazzucco, & Keller, 2016; Keller, 1988-1989)
Cemmo	Mesolithic (Sauvetterian), Recent Neolithic, Copper Age (III rd millennium)	pottery, lithic tools, ritual construction, ochre		(Keller, 2009; Martini, Baglioni, Magri, Mazzucco, & Keller, 2016)
Castello di Breno	Paleolithic(?), Late Neolithic, Copper Age	lithic tools, bone tools, pottery, habitation structure, pits, burials, hearths, fusaiole, figurine, pebbles with ochre traces, ornaments	4057-3958 cal B.C. (chronological span resulting from various radiometric dates in proximity for the first occupation phase	(Fedele, 1988; Fedele & Odone, 1999; Fedele, 2000)

			according to (Fedele, Terassi, & Passariello, 2010)	
Breno, Piazza Ronchi	Copper Age (III rd millennium)	burial with ornaments (perforated carnivore teeth, stone beads) lithic tools, pottery vase and a copper awl		https://www.gazzettadellevalli.it/attualita/breno-conclusi-gli-scavi-archeologici-in-piazza-ronchi-i-risultati-224675/ (Longhi, et al., 2021)
Luine	Late Neolithic, early Copper Age	pottery, lithic tools, red ochre		(Anati, 1982; Keller, 2001)
Riparo Il Foppe di Nadro	Paleolithic(?), Late Mesolithic (Castelnovian), Copper Age	lithic tools, burial with ornaments		(Zanettin, 1983; Biagi, 1983; Biagi, 2003)
Cascina Valmaione	Ancient mesolithic, Late Mesolithic (Castelnovian)	lithic tools, hearth	Valmaione 2 9630±100 BP	(Biagi & Starnini, 2015)
Lago di Ravenola	Ancient Mesolithic (Sauveterrean)	lithic tools, bone tools		(Biagi & Starnini, 2015)

Malga Rondeneto	Ancient Mesolithic (Sauvetterian)	lithic tools, hearth	8880± 150 BP	(Biagi & Starnini, 2015)
Laghetti del Crestoso	Late Mesolithic (Castelnovian)	lithic tools	5909-5482 cal BC/ 5896-5631 cal BC	(Biagi & Starnini, 2015)
Rovato, Stazione Visdone superiore	Mesolithic(?), Neolithic? (Superficial collection)	Lithic tools, polished stone axe		(Recenti documenti pervenute agli archivi del centro, 1969)
Lovere, (Colle del Lazaretto)	Early and Late Neolithic	settlement (combustion pit)	6650±170 BP	(Keller, 1999-2000; Keller, Castiglioni, & Leonini, 2003- 06)
Coren Paga (Rogno)	Late Neolithic	settlement, pottery, lithic tools, fusaiole		(Ferrari, Pessina, & Visentini, 2001; Priuli, 2004-2005)
Dos dell' Arca	Late Neolithic, Copper Age	lithic tools, pottery		(Anati, 1968, pp. 15-50; Rondini & Marretta, 2019)
Lava di Malonno	Neolithic	polished stone axe (superficial collection/out of context)		(Anati E. , 1979; 1969)

Monte Berzo	Neolithic	polished stone axe (superficial collection/out of context)		(1974; Anati E. , 1979) ·
Vit.36 (Paspardo)	Neolithic/ Copper Age (?)	polished stone axe, lithic tools and pottery fragments (superficial collection/out of context)		(Arcà, Ferrario, Fossati, & Ruggiero, 1996; Fossati, 2007)
Le Torbiere Iseo	Neolithic (ancient, middle, late)	lithic tools		(Odone S. , 2001)
Provaglio d'Iseo	Mesolithic	lithic tools		https://visitlakeiseo.info/wp-content/uploads/2020/03/brochuretorbiereita-1.pdf (Biagi, 1976; Odone S. , 2001)

Table 2. Stratigraphic sequences of excavated sites in Valcamonica until Copper 2 phase.

3.3 Copper Age

The Copper Age in Italy is extended for about a millennium, 3500/3400-2200 BC and in general terms coincides with the onset of metallurgy. New radiocarbon dates set the onset to 3693/3471 BC cal (Maggi & Pearce, 2013).

The name of this intermediate period between Neolithic and Bronze Age has been a matter of debate, in terms of how the advent of metals have intervened in the evolution of social structures. The term Chalcolithic, introduced by Strahm, describes cultures already in possession of metal but whose economic structure is not yet influenced by metallurgy (Strahm, 1982; Pedrotti, 2004). Another term, very frequently used in Italian literature, is Eneolithic and was introduced by Chierici in 1884 to describe complexes such as Remedello one, that “*preserved an archeological identity recognized in association to triangular daggers and flat axes in copper, arrow heads, perforated axes and rites of inhumation*” (Pedrotti, 2004, p. 186). Last, the “Copper Age” term on the other, is used to describe a period successive to the late Neolithic aspects and before those of Ancient Bronze Age retaining therefore only a chronological sense (Pedrotti, 2004).

Chronologically, Copper Age period is divided into three phases after Late Neolithic (3900/800 - 3500/400 BC): Copper 1 (3500/400-2800 BC), Copper 2 (2800 - 2400 BC) and Copper 3 (2400-2200 BC) as proposed by De Marinis (De Marinis, 1994). The first two stages have been defined on the characterization of the earliest evidence of the Remedello cemetery site. Two main cultural horizons were recognized and called Remedello 1 and 2. The two stages are often alternatively used instead of Copper 1 and 2 (De Marinis, 1994). Differently, the third phase of Copper Age coincides with the onset and development of Campaniform recipients and so Copper 3 is called Campaniform.

The subsistence strategies do not significantly change from Neolithic, except the modes and intensions. Between the IV and III millennium, prehistoric Europe faced a radical transformation in terms of economic and social changes. Agriculture and pastoralism after having been a well conquered knowledge, have become progressively new forms of wealth accumulation (Baioni, 2012) and self-sufficiency. According to the few data, cultivated species in Copper Age do not show great differences from Neolithic. The onset of Copper Age was still experiencing a series of climatic and landscape changes introduced in Final Neolithic. For example, a continuation of *Fagus sylvatica* (beech) expansion and alternations of cooling and wet periods, were helping the creation of areas adapted to pastoralism (Pini, et al., 2016). More systematic cultivation and a greater intervention on forestall areas is noted true, but not yet invasive (Tecchiati, Castiglioni, & Rottoli, 2013) enough to transform the forests. Only a

small increase in the Pomoideae, *Prunus* spp and *Corylus avellana* is observed (Tecchiati, Castiglioni, & Rottoli, 2013).

Domesticated fauna in general terms does not present great modifications from Neolithic either. However, people turned from considering animals not only as primary source of alimentation, but even as secondary products source (milk, wool, cheese etc.). The older age of animal death, size or differentiation of sex occurring intentionally, confirm what Sherratt had called “*Secondary products revolution*” (Tecchiati, Castiglioni, & Rottoli, 2013). During Copper Age an increase in hunting practices is documented (De Marinis & Pedrotti, 1997; Baioni, 2012), maybe as a result of longer time the animals were kept in life for the exploitation of their products. The relation however between domesticated and wild animals may vary from site to site and region to region. A dominance of hunting in the recovered Copper Age fauna may indicate apart from sites retaining one prevailing subsistence strategy, a stronger persistence of Neolithic traditions. In Valcamonica very few data exist so far. However, considering also other regions, statistically a stronger preference to deer is noticed (Tecchiati, Castiglioni, & Rottoli, 2013; Keller, 2017). Small mammals and birds are also documented (Fedele, 2000). Fishing was present but it was retaining a marginal role.

Part of the process of thinking about the landscape in a fresh way now involved “*thinking it through animals*” (Tilley, 1994, p. 206). The transition from hunting to farming of animals presupposed that a conceptual change in the relationship people-animals was achieved in Neolithic (Tilley, 1994). From final Neolithic/Early Copper Age, technological innovations of cart and plow were strongly relevant on how the animals were viewed, with strong implication in the symbolic production as well. The evolution of herding brought new forms of wealth accumulation and a new modality of territory exploitation (Baioni, 2012). With the secondary products revolution, animals were assessed for their products and energy they provided.

The discovery of Similaun mummy in 1991 in Val Senales (3.210m a.s.l), northern Italy, witnessed a mobility system based on the movement of small groups covering long distances within wide network areas at the onset of Copper Age (Pedrotti, 2004). This great interaction exchanging resources among communities took place as a form of trade and material provisioning, enhancing globalization process (Oosterbeek, 2017; Scarre, 2013). The extensive study of the objects Ötzi –so the Similaun mummy has been called- revealed knowledge of agricultural activities, hunting and pastoralism (Pedrotti, 2004). There are indications that the earliest forms of high altitudes pastoralism already started in the IV millennium BC, but at least in the beginning no data infer the practicing of the activity over the

timberline (Maggi & Nisbet, 1991; Pini, et al., 2016). Definitely, the frequentation of higher altitudes in Copper Age would consist a more complex phenomenon not only devoted to pastoralism but may also to hunting and search for raw material (Maggi & Nisbet, 1991). As suggested by (Tecchiati, Castiglioni, & Rottoli, 2013), this fact increased anthropic pressure on mountainous landscapes, implying some progressive demographic increase. This phenomenon would be more reasonable in cases that resources would be depend on animal herding where agricultural activities would have been lower (Biagi, 2003; Hodder, 1990). The discovery of the Similaun mummy, apart from a reference point for the Copper Age culture (Genick, 2009), provided a series of radiometric dates 3360-3100 cal BC, setting safe chronological limits of the period in study.

As mentioned in the previous chapter 3.2 p.28, the immediate previous period (Final Neolithic) was marked by a tendency on quest for security and stability by pioneer farmers and hunters that was covered by the re-habitation of older sites while searching for new, unoccupied, land. In that sense, houses in Neolithic may have played their role in the “domestication” of society and space, creating links between people, and human- land. The self-sufficiency the systematic subsistence practices were providing and the confidence that follows the sense of security gave space to the development of a great autonomy.

We have very scant information on real settlements of early Copper Age of Valcamonica. It seems that habitation was taking place on rectangle houses done with “*pietra a secco*”, as the house B5 and B17 of Breno site demonstrate (Fedele, 2000). More domestic activities were probably carried out on the backside of the building.

Differently from the Neolithic period when the Breno settlement was dominating the top of the hill, now the Copper Age one, occupies the sloping areas on the hill side facing the inner valley. The similarities with the structure from Plunacher of Villandro in val d’Isarco and the date 2700 BC obtained from a wood carbon form an internal hearth, coincide with the estimation given to the Breno house B5 to Copper 2, based on the archeological material recovered (Fedele, 1988; 2000). Moreover, excavations in Luine (Anati, 1982; Keller, 2001), led to identify a continuity Late Neolithic to early Copper Age under the Bronze and Iron Age layers, based principally on a pottery elements. However, due to the paucity of settlements and the lack of materials surely attributed to the early Copper Age horizon, it is not that easy to provide assumptions on the daily life of that period in Valcamonica.

The material recovered is basically consumed to pottery and some lithic tools. On the base of decoration, pottery recipients can have in general non perforated holes, decoration with cords, and

surface with striations. Coarse ware with smooth cords has been defined by A. Pedrotti as “Tamins-Carasso” or “Tamins -Isera 5” due to its presence on the site Isera la Toretta (TN) (De Marinis & Pedrotti, 1997), is represented also on the site of Breno (Genick, 1996). Two of the most frequent decoration styles in northern Italy are “stile metopale” with decorations organized only in one or two bands on incision or points, and the so called “White ware” (due the abundance in filler fragments of whitish color), principally defined from the site of Monte Covolo.

The biggest amount of ceramic material is constituted by heavy recipients of everyday use of cylindric shape. The matrix is often filled with various elements that, getting disintegrated in the baking, provoke a characteristic porosity to the recipient (Fedele, 1988). The rare examples with decoration “a squame” smooth laths, irregular grooves and ribs, holes under the brim, non-perforated holes and pedunculated buttons executed separately belong to the Copper 2 phase (Fedele, 1988). Few fragments of a characteristic pottery decoration with incisions from Luine recall similar findings from Kanzianimberg, found both in Neolithic and Copper Age layers, as indicated also from other sites (Pedrotti, 1990; Keller, 2001).

The lithic industry is characterized principally by arrow heads with peduncle and daggers. Other instruments include percussors, grinders, small axes, battle-axe, polished axes from the excavations of Breno and Luine (Fedele, 1988; Fedele, 2000; Anati, 1982). The evolution of arrow heads that now become more pointed suggest that hunting was still important.

A typical characteristic of this period, is that the greatest part of information retrieved comes almost exclusively from funeral contexts forming what some authors call “funeral cultures” (Genick, Preistoria, 2009). A marked difference from the Neolithic tradition is the segregation of space of living from the dead in separate structures, followed by a codification of ritual practices. The lack of burials in Valcamonica clearly attributed to this early phase does not allow us to make further conclusions in particular.

In the cemetery of South Remedello studied by De Marinis those norms are manifested in the deposition of dead, orientation according to gender and age, as well as social role, but also distinctive grave goods described in weapons for the male and pottery for the female (De Marinis, 2013).

After clay turned into pottery recipients, copper was the second chemical transformation of a raw material, leading to an irreversible technological evolution in human society. Two copper mines Monte Libiola and Monte Loreto in Liguria provide dates of use already from mid IV millennium BC, and so

already from Late Neolithic, as well as Inn valley with which northern Italy seems to have had contacts of exchange or trade in nature (Bartelheim & Pearce, 2015).

The introduction of metal and its craftsmanship knowledge, was definitely the most important event of this period related to two areas/cultures in northern Italy: Remedello and Rinaldone and in the beginning was delimited to weapon production and prestige objects coming mostly from funerary contexts (De Marinis, 2013). Daggers, halberds and flat axes, with the last two categories containing bigger amount of arsenic were the most distinctive. Similar patterns identify early copper-use in Altheim, Pfyn, Cortaillod, and Mondsee groups (Bartelheim & Pearce, 2015; De Marinis, 1994). Contemporaneous resources however should be searched in the Alps and Appenines, because the alluvial Po plain lacks copper outcrops. According to evidence from Trentino region metalworking seems to be associated with rock shelters and burials (Bartelheim & Pearce, 2015).

Due to the fact that the archeological material of Remedello cemetery, and particularly the weapons provide a chronological and typological reference for the rock art motifs, a detailed presentation of them is considered important in this part, without diminishing the importance of other Copper Age cultural aspects.

Weapons include Remedello daggers, laurel-leaf shaped daggers, axes and halberds. Arch would be included as well but in the archeological material it is inferred only by the arrow points. Representation of daggers with a triangular blade, straight base and thin handle with semicircular or half-moon pommel, is the most characteristic feature of the first phase of Valcamonica Copper Age rock art (Anati, 1972) and are called “Remedello daggers” (Fig.6). This type of dagger is distinctive of the southern part of the Remedello necropolis dated between 2900-2400 BC and consists a good chronological marker for various aspects of this period such as rock art.



Fig. 6 Dagger from t. 79 of South Remedello cemetery. Source: (De Marinis, 2013)

Albeit the increasing value of metal and integration in the cultural contexts, flint material production has continued. Another very frequent type of dagger is of laurel leaf shape blade. It belongs to the same chronological horizon to the Remedello ones, but may even go back to Final Neolithic⁵ (De Marinis 2007, p.39), marking the transitionary period Final Neolithic/ Early Copper Age.

⁵ On the base of a dagger fragment from Isera la Toretta.

The manufacture of those daggers consists of two parts: the blade and the handle. The handle was probably made of organic material since it is not preserved. Pedrotti noted that two notches in the base of a flint blade from Doss Pipel (TN), may infer use with a handle appendix (Pedrotti, 2001).

On Valcamonica rock art monumental compositions, halberds with laurel leaf blade are represented with a sinuous handle whose strange cord-like fixation is not yet fully understood (e.g. Capitello dei due Pini) (Fig.7). According to the material findings, those weapons must have been made of flint (Casini, Fossati, & De Marinis, 1995). The blade morphology is analogous to that of laurel leaf flint daggers (De Marinis, 2013) but for the existence of halberds, only a blade in flint from tomb No.2 of Spilamberto cemetery was found, whose position in the height of the body's shoulders, leaves open the possibility of having been part of a halberd.

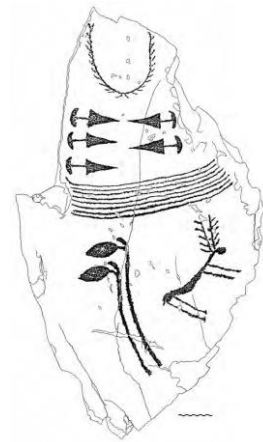


Fig.7 The monumental composition of Capitello dei due Pini. Source: (Casini, De Marinis, & Fossati, 2014)

Doss Pipel site provided some laurel leaf-type daggers (with pointed base), but it was not the only one. Isera la Toretta (layer 4, 3600 e 3400 cal B.C.), the tomb of Acquaviva di Besenello with C14 dates 3193-2906 cal BC (71.1%) (Pedrotti, 2001), the Ergolding-Fischergasse in Germany (3700 and 3400 cal B.C) settlement of Altheim culture with an example in flint from Monti Lessini, are also sites with this specific type of dagger (De Marinis & Pedrotti, 1997; Pedrotti, 2004).

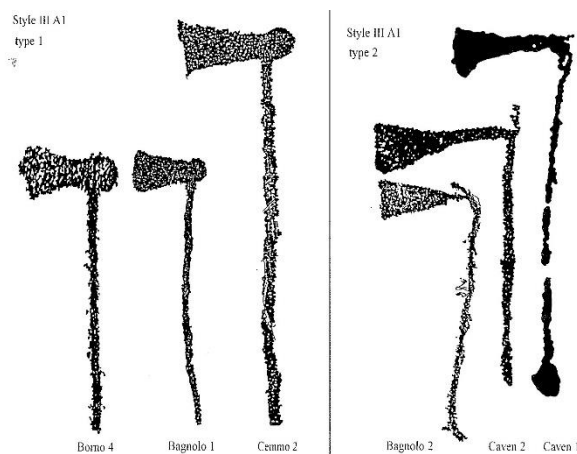


Fig. 8 Typology of axes for the IIIA1 monumental compositions. On the left, shaft hole axes and on the right with the knee shaft handle. Source: (Casini S. , 2001)

Axes are quite numerous but rarer than the daggers (Fig.8). Shaft hole axes, are comprised of a rounded heel and a bell-shaped blade with a slight narrowing in the middle part and an asymmetrical edge (Casini, 1997). The handle is connected to the body near the heel and is probably lithic. The most representative example is the one found in Fornovo S.Giovanni (BG) of polished stone (Longhi, 1994).

The fragments of Trescore Balneario, Lovere and Breno sites were recovered in stratigraphic position, but their state of integrity does not allow further reconstruction of shape (Casini S. , 2001). For the moment, this type appears carved on stelae

and boulders of Valcamonica/Valtellina and the lack of parallels in Europe or the rest of Italy make it possible to be a local preference in Lombardy. Interestingly, as Bagolini noticed it is excluded from grave goods of all main cemeteries of Remedello and Bell Beaker Lombardy, but not from other regions (Casini S. , 2001). This exclusion from the world of the dead, the meticulous selection of raw material (polished tone, serpentinite, jadeite etc.) for non-utilitarian purpose, along with their use in monumental compositions of the Valley in relation to other symbols may infer a special role.

The second type of axe is one of knee shaft handle, with trapezoidal blade referred to flat copper axes, that is fastened to the handle by a horizontal line, which curves down in the connection point to the handle. In some cases, the upper end of the handle has vertical or curved appendix, similar to that of leaf shaped handle of halberds (Casini, 1997).

Stone and copper instruments from Valcamonica have been retrieved from the site of Breno, Luine and Ossimo area (Anati, 1982; Fedele, 1988; Keller, 2009). The axe from Paspardo (Fossati, 2007) already mentioned in the discussion for Neolithic in chapter 3.2, having a morphology of uncertain attribution could also be of Copper Age and be mentioned here too.

The transition to Copper Age under a globalization process resulted in the emergence of a new ideological package presenting similitudes throughout the alpine zone, and was revealed as a transformation in the symbolic production. In Valcamonica and Valtellina statue stelae and boulders engraved with monumental compositions were erected, in open air locations, sometimes in alignments (Baioni & Keller, 2013). Their position was in areas marked in landscape on especially reserved spaces on constructed terraces (Ossimo) or demarcated by the construction of walls (Cemmo) in nodal points e.g. paths, passages (Baioni & Keller, 2013). On the contrary, natural morphological attributes of landscape were considered intentionally, such as Ossimo terrain resembling plowing furrows used as props to enhance the symbolic character of the monuments. Monumental constructions with boulders and stelae had ritual function and maybe also religious as suggested by their positioning, engravings and context (Keller, 2009). In some cases, the upper part of rock menhir was treated so as to resemble the aspect of a human figure in an alluding anthropomorphisation, creating what is called “anthropomorphic stelae”. It is not sure whom they were representing, for what purpose and for whom the ritual space was reserved. Their monumental setting may include also the deposition of objects and the archeological excavation has revealed the use of their space long term (Cemmo, Ossimo) (Keller, 2009).

On the rock surfaces, many times naturally smoothed, weapons, animals, human figures, symbols, topographic maps and plowing scenes are represented. Anthropomorphisation could be also inferred by

a specific distribution of symbols and motifs (weapons for male and ornaments for female) assigning a gender character to them (Casini, De Marinis, & Fossati, 2014). Many of the engraved elements find exact comparisons to contemporaneous well dated material, most of it present in the Remedello cemetery (weapons, double spirals, necklaces) providing a chronological horizon for the engraved symbols (De Marinis, 1994). Interestingly, as noted, the Remedello daggers depicted in art do not occur in the area where art is made (Bartelheim & Pearce, 2015). But the Copper Age art production was not restricted only on monoliths and was extended on the exposed rock surfaces too, without following though the same structural rules of the monumental compositions.

4.1 Chronological models

The problems of relative chronology exposed in chapter 2 are known as common riddle for researchers to solve. In the meantime, research went on, and until today many fieldworks have been put forward for an ex-novo tracing and revision of rocks from both Centro Camuno di Studi Preistorici and Società Cooperativa Orme dell’Uomo, some works of which have been recently published (Sansoni & Gavaldo, 2009; Cittadini, 2017; Medici & Gavaldo, 2019). Gradually and in the light of archeological excavations that were bringing up new data, subdivision of some periods such as IIIA has been proposed (De Marinis, 1994).

Precise comparisons of the engraved weaponry with the findings from the Remedello cemetery (dated with 14C AMS), allowed De Marinis identify chronological horizons for the engraved motifs. His proposal was based on different typologies of materials and stratigraphy (De Marinis, 1994; De Marinis & Pedrotti, 1997; De Marinis, 1997). The chronology of the Remedello culture, based on the excavated sites, was divided into three phases: Remedello 1 (3300/3200-2900/2800 BC), Remedello 2 (2900/2800-2400 BC), Remedello 3 (2400-2200 BC). With the examination of rock art figures by De Marinis and colleagues, the following sequence has been concluded (Fedele, 2012, p. fig.1; Fedele, 2011, p. fig.7) and presented in the volume of *Le pietre degli dei* (Casini, 1994):

- style IIIA0, Copper 1, 3350- 2900 BC⁶, Remedello 1
- style IIIA1, Copper 2, 2900-2400 BC, Remedello 2
- style IIIA2, Copper 3, 2400-2200 BC, Bell Beaker/ Campaniform pottery
- Early Bronze Age, 2200-2000 BC

Further studies of depth by A. Arcà (Arcà, 1999; 2007) on topographic motifs have enriched the contents of the above division for the early phases with more detail. This specific approach has been followed also in this thesis.

For the IIIA0, topographic compositions (maps) are included. Some peculiar compositions, the so-called idols (Sellero, Paspardo), assigned to the Style II (Sansoni & Gavaldo, 2009), are more likely to be seen as maps⁷. For the IIIA1, the first subdivision of IIIA period, Remedellian daggers, laurel leaf daggers, some halberds with specific blade type as described in (Casini S. , 2001) schematic human figures (Fossati, Le

⁶ Phase IIIA0 has been proposed by F.Fedele as a pre Remedellian period characterized by topographic maps. Is identified by few examples of superimpositions on Borno 1, Bagnolo 1, Ossimo 8, Pat 8, Pat 9 and Ossimo M4.

⁷ Arca <http://www.rupestre.net/tracce/?p=3654>

figure antropomorfe, 1994), various symbols usually describing a female character on stelae (Casini, 2012) and other symbols for male, animals with more prominent the deer, and the first plowing scenes.

As above mentioned, the approximation of some figures especially the schematic ones become a riddle when one arrives to their determination. And it would have been left to the idiosyncratic nature of the artist if the rendition of some were not followed by a uniform character. For the figure of *Orante* (prayer)⁸, various chronostylistic attributions have been proposed. In his chronological proposal, Anati placed it in phase I- II (V millennium BC - part of the IV 5000-3800 BC and to the IV millennium BC 3800-3000 BC) (Anati, 1979; 1975) in comparison to similar figures from the context of swiss Valais, bone objects from Vinca, Cucuteni and riparo Gaban placed in the V-IV millennium BC.

Other revisions, included proposals for mid Bronze Age-early Iron Age (Arcà A. , 2001) since some of them overlap Neolithic-Copper Age maps, Copper Age plowing scenes and Early Bronze Age daggers and morphologically, some similarity to warriors is evident. It comes contrasting though their absence from the Copper Age statue stelae and boulders, making us think of, as suggested, a double thematic line: one for the flat rocks and one for the monumental scenes. In the statue stelae and boulders, a certain type of figure with some small variations appears, associated with the Remedellian daggers (despite oranti)⁹, typical of IIIA1. The one with sticky body, extended hands legs in V and feet turned outwards. The gender is not indicated. Around IIIA2, this figure will obtain a triangular body, and the fingers of the hands are indicated. Now in the stelae not only the gender is highlighted but also the frequency of male-female assumes a certain pattern (De Marinis, 1994). In the other alpine groups, there are no anthropomorphic figures represented apart from the stelae of Laces, that by the way has close affinities to the Valtellina group, and in r.30 of Foppe di Nadro.

How is this separation explained? Would it be possible that the schematic figure of praying figures was very delicately introduced in the late Neolithic under either: a) a double thematic line only for flat rocks, so in that way we have to think possible a variation of repertoire in monumental and non-monumental themes; b) after the introduction in that time (since the synchronous appearance of in other contexts consist an *ante quem*) to have been subjected to gradual revivals, therefore explaining the superimpositions of various periods and diverse associations? Further studies could highlight the topic.

⁸ Schematic rendition of human figure with linear body, hands raised upwards in U shape and feet symmetrically opposed.

⁹ Oranti, do not seem associated to any Remedellian or beaker elements (Arcà, 2001), maybe with some exception in the area Foppe di Nadro.

In any case, the attribution of praying figures has opened a broader chronological frame anymore, beyond the conviction of Neolithic (Sansoni, 2001).

The topic still remains delicate and it should have been the content of a separate work itself taking into consideration deeper research of later periods and more rocks as well, in order to be studied in its full extent. Hence, here it will only be maintained in the sphere of reference.

4.2 Neolithic Rock art

During the second rupestrian phase, whose chronology corresponds to the IV millennium BC, i.e. between the end of Neolithic and the early Copper Age, a significant change occurred in the figurative themes of rock art, whose main subjects encompasses those territories from Valcamonica-Valtellina to Mt. Bego in France (Arcà, 2013; Arcà, 2007). The graphic expressions may well reflect the features of the new economic and social structures, with possibly the most important subject during Neolithic to be the so-called “topographic” module. It consists of totally pecked irregular areas (*maculae*), double based rectangles (sometimes totally pecked), alignments of dots, grids, lengthened dots (*maccheroni*) or groups of dots, “mushrooms”, oval outlined figures with a central dot and *bandolier*, which are often found associated on the same surfaces and repeated many times, rendering plausible their organization under a thematic unit (Fossati, 2003; Arcà, 1999; Arcà, 2007). The iconographic repertoire during the passage from Final Neolithic to Copper Age, apart from topographic maps, had already acquired a series of figures that seem to preclude the new conceptual and ideological complex of the next period related to the megalithic art (Anati, 1979; Fossati, 2007): spirals, upside-down U motif.

To begin with, the term “topographic” engravings or else topographic maps, does not necessarily mean the representation of real landscape elements (Arcà, 2004). Landscape is a dynamic notion constructed by natural and human-made changes that act and are acted upon it (Sognnes, 2002), lying between nature, culture and our personal experiences (that affect our interpretation) (Nash & Chippindale, 2001). Its symbolic establishment, as a meaningful unity, could be variably denoted: from the selection of the site to the position of the motifs on the rock art panel and the motifs themselves. In Valcamonica/Valtellina rock art sites may vary from visible, to less visible areas. However, visibility should not be confused with accessibility in strict terms or the contrary. As rock art and ethnographic studies for other areas have shown (Mt. Bego or Barunga region of the Northern Territory, Australia) (Arcà, 2013; Arcà, 2004; Arcà, 1999; Domingo, Smith, Jackson, & Roman, 2020), sites that are visible and/or accessible from a landscape perspective can be subject to restricted access regulated through social rules, maybe in a form of secret knowledge controlled by certain people, or involved in the revocation of something, just as much as areas of poor visibility be too (Nash & Chippindale, 2001).

Generally topographic maps are encountered either engraved (Valcamonica/Valtellina) or painted (Val Germanasca) (Fossati, 2013; Arcà, 1997) and different typologies are recognized whose formal parameters change according to their chronology. On the base of more focused works on the topic, held

in the 90's by Arcà for the study of rock 13 Vite (Arcà, 1994) and of Gavaldo on the area of Pia D'Ort (Gavaldo, 1995), two distinct phases have been distinguished:

a) between Neolithic to late Neolithic/early Copper Age. In Valcamonica they can be met on terrain rock on both sides of the valley, in Paspardo Vite, Dos dell'Arca, Piè, Paspardo Dos Sottolajolo, Costa Peta, Foppe di Nadro, Seradina, Bedolina and Le Crus. In Valtellina, all of them on south east facing slopes in a panoramic view (Arcà, 2004) They are found in Dosso Giroldo, Trevisio (Rupe Magna), Val di Tej (Grossotto), Caven (Teglio), S.Giovanni (Teglio). Also, on the boulders Borno 1 face B, Bagnolo Ceresolo, Ossimo 8. (Arcà, 1994; Arcà, 1999)

b) middle Iron Age. Here the topographic incisions are scarcer and are present in only two sites: Bedolina and Pia d' Ort (Arcà, 2007; Arcà, 1999).

For the ancient phase, figures appear mostly under compositions of Copper Age 2 Remedellian, and Copper 3 Campaniform (Borno 1 face B, Bagnolo Ceresolo, Ossimo 8) (Arcà, 1994; 2007). This first engraving phase of maps runs almost parallelly to those of Mt. Bego (Fig.9). There, topographic figures very similar to Valcamonica, appear always underimposed to elements dated to Copper and Bronze Age (Daudry & Fossati, 2017). However, albeit in Valcamonica topographic maps reappear in Iron Age, their presence in Mt. Bego area ceases around medium Bronze Age (Arcà, 2007; Arcà, 2013).

Subsequently, the first topographic tradition has been divided by Arcà (2007) into two distinct phases: IIA characterized by the presence of maculae, and IIB represented by geometric modules. The distinction is based on an evolution of agricultural techniques that the maps may represent.

According to this subdivision, maculae are the oldest representations (IIA) found always underimposed to all figures, and they are probably related to the use of some wooden element for the cultivation of land. In excavated layers, this rupestrian level the beginning of which is not yet defined with precision, could be identified parallel to Cagno- Isera 4- Romagnano str.R- Lovere I layers (3700/600-3400 BC) (Mottes & Nicolis, 2002; Fedele, 2011; De Marinis & Pedrotti, 1997). IIA is followed by the second and

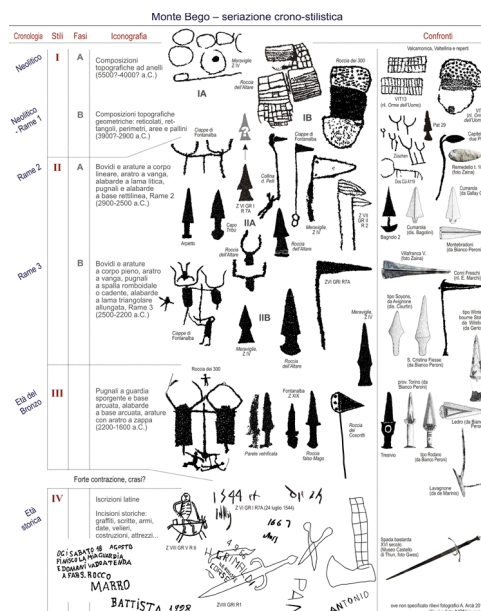


Fig.9. Table of comparison. Rock art of Mt. Bego and Valcamonica. Source: (Arcà, 2013)

slightly posterior phase (IIB), with more defined geometric motifs usually of rectangle shape, probably related to the introduction of the plow, during the transition Neolithic-Copper Age 1 (mid-IV millennium-early IIIrd millennium) (Arcà, 2007).

Concerning the topographic maps, the irregularly totally pecked areas (maculae) is the most characteristic motif of the IIA phase and they are encountered both on terrain and vertical surfaces such as monoliths. Based on superimpositions, they have been considered the most ancient expression of maps (Arcà, 1999; Arcà, 2007). Their greatest anteriority is advocated by the fact that they are underimposed also to other topographic maps of IIB such as rectangles with double base (Borno 1, Vit.6 sector E of Paspardo, Vit.29 etc.) (Arcà, 2007) without however being possible to estimate the exact moment. It is logical to assume a period before Copper Age IIIA1 (Copper 2) for sure. Since they come under IIB topographic motifs they may be also before Final Neolithic/Copper 1 even go back to late V millennium BC. For their dating, a synchronicity to the settlements Coren Paga (Rogno) and Breno (last centuries of V millennium) has been suggested the earliest (Daudry & Fossati, 2017), or a later Neolithic positioning between 4000-3700 BC (Arcà, 2007).

The anteriority of this motif is reinforced by the discovery of various blocks engraved with topographic patterns inside well dated archeological contexts in the area of Ossimo-Pat (Pat 8,9 and Pat 29) (Keller, 2009; 2017). The monoliths in question were reused to build up circular mound A and in the enclosure 174, and are linked to the absolute dating of 3700-3510 BC (Keller, 2009), providing an *ante quem* for the moment of completion of their engravings.

An intentional displacement of the Borno 1 boulder from a horizontal to a vertical position, after the engraving of topographic motifs of both IIA and IIB horizons, resulted in a monumentalization for the topographic engravings while the transformation of the rock support (Frontini, 1994).

Transitory periods have no clear boundaries and this is why they are difficult to be defined with precision. However, some changes and tendencies can be identified. The IIB phase is presumed here to be quite critical because it encompasses the heart of the transitory process of shifting from Final Neolithic to Copper Age. For this phase, where the roots of ideology and iconography of Copper 2 are derived, Fedele proposed its inscription to a zero phase, IIIA0 (3400/300-2900 BC) as he named it (Fedele, 2011), chronologically parallel to Copper 1/Remedello 1. In terms of stratigraphy, it is translated to Remedello I- White Ware- Isera 5- Lovere II- Romagnano str. Q- Tamins/Carasso layers (Fedele, 2011; De Marinis & Pedrotti, 1997).

This period is recognized by an amplified group of geometric motifs: simple or double base rectangles, alignments with dots, “mushroom”, oval figures and “bandolier”. However, probably, the most common is the double base rectangle. It abounds on flat rocks either in association with other motifs of IIB such as spots, grids etc. or individually, or on monoliths (Bagnolo I, Ossimo 8, Borno I face B) (Arcà, 1994; Casini, 1994). In the French Alps rectangle motifs of this kind can be found in Roccia dei 300 and Roccia dei Coscritti as well as other zones, including XIX of Fontanalba belonging to the same horizon (Arcà, 2013). Its formation consists of a simple outline divided horizontally in two sections, with the one being narrower. Sometimes has an internal partition (Vite R. 86, R.13), a central dot or comes completely filled in. In other cases, such as rock Vit.62, they present a small semicircular internal suffix in one of their long sides.

A (semi) rectangle topographic motif, what Martinotti called “topographic shieldshapes” (Martinotti, 2012) that could be a Valtellinese type of map, is referred in this period (Fig.10). It is usually

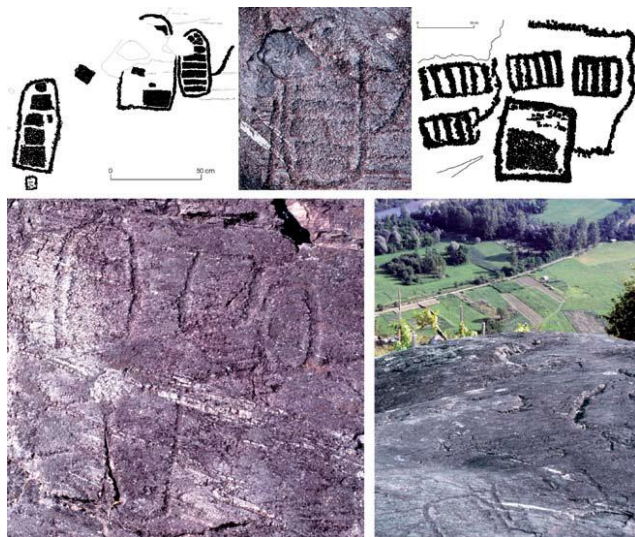


Fig.10 Topographic figures with parallel bands inscribed in a rectangular-ogival perimeter. Caven Teglio (SO). Source: (Arcà, 2007)

characterized by a basic square/rectangle outline with the upper side curved, often pecked internally with rectangle horizontal or parallel bands. Based on the only overlappings available from Dosso Giroldo, a IV-III millennium BC (Fossati, 1995) and early Copper Age IIIA1 date the most ancient (Martinotti, 2012) has been proposed. Peculiar elements of similar geometric morphology to “topographic shieldshapes” are encountered in Luine (R.34). Those are called *scutiformi* (Anati, 1982), most of the times have internal horizontal lines or semicircular motifs that recall those of Gavirnis slabs from

megalithic art. Scutiformi are associated to Bronze Age weapons and should not be confused with the maps we find in Valtellina (Fossati, 1995; Martinotti, 2012).

Another recurrent theme is the one of the so called “maccheroni”. It corresponds to elongated dots, often associated with the double rectangles (Vit29), that could represent hay piles collected in small sheaves to dry or sheaves of wheat harvested to ripen on the field (Arcà, 2013).

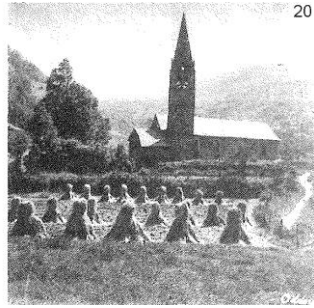


Fig.11. An engraved figure from Vite rock 3 (Valcamonica, left) and cereal sheaves in a field (Haute-Provence, from Martel! 1983a). Source: (Arcà, 1999)

Similar to the maccheroni are the spots or dots, which are often covered by figures of later periods. For example, in Borno 1 two spots are overlapped by three daggers. Other times they appear arranged in lines (Vit.77) or just scarce. Geometric motifs include also oval shapes, sometimes with central dot (Vit.8) often close to rectangle motifs and dots. Maccheroni, dots and oval shapes combined create another motif peculiar in shape, called “mushroom”

(Fig.11), found also in Fontanalba France (Arcà, 1999). The attribution of this motif to Middle Neolithic in the French Alps, is based on its morphological similarities to some seasonal shelter structures of shepherds on the mountains called *gias* (Bianchi, 2013; Arcà, 1994). In Valcamonica, “mushroom” is quite frequent on rock outcrops of Vite, Dos dell Arca, etc. Similar rock art motifs have been discovered on a vertical rock of Pian Camuno (Priuli A. , 2001)(Fig.12).

The Neolithic rock art of Valcamonica is additionally characterized by gridforms. Its wide geographical and chronological distribution makes hard understanding its meaning. It may represent structures to store cereals such as those vertical wooden ones from Histe, Casne and other in the Alps or the Mehrgrah structures or Cayonu Tepesi (Arcà, 1999) (Fig. 13). In Valcamonica, is relatively frequent in Vite (Vit.64, Vit.13) and R.6 in Luine.

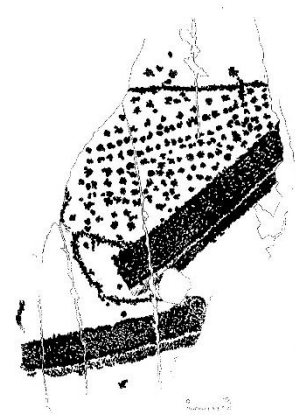


Fig.12 Pian Camuno. Contact tracing of rock 2. Source: (Priuli A. , 2001)

Of course, motifs may change status, meaning and importance depending on particular social, political, economic and symbolic mechanisms of influence progressing morphological changes (Nash, 2002). Topographic maps, as said, may and may not be the exact imprints of landscape elements or human structures (Arcà, 2004). But they could contain some true elements or agricultural practices imprinted on landscape, represented on the rocks in a more visionary way (Arcà, 2004).

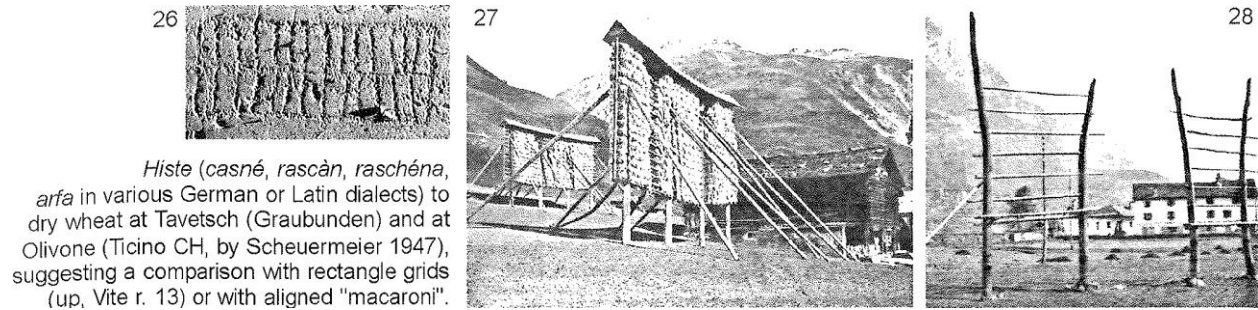


Fig.13 Grids and associations. Source: (Arcà, 1999)

In some cases, during the phase IIB, together with the amplification of geometric motifs, a more closed shape or a formation of a "protective" character (Vit.13, Vit.20 sect. D/ B, Vit.21) make its appearance for the first time and it is called *bandolier*. The *bandolier*, is a circular shaped motif with single or double outline with two or more semicircular engraved elements attached in its perimeter from inside or outside, sometimes with a mid-division. Its appearance encloses a vast area of diffusion in a variety of supports and contexts: from Valcamonica- Valtellina on both statue-stelae (Vangione 1 and 2, Valgella 3, Borno 1 face D, Borno 6, Ossimo 3) and outcropping rocks (Vit.20-21), to southern Italy, e.g. Porto Badisco cave or even out of the Italian territory, in Brittany, Norman Islands and Mt. Bego (Daudry and Fossati, 2017). Some connections to the megalithic world are presumed, judging from its shape, which recalls megalithic monuments such as Stonehenge (England), the Jarlshof site (Scotland) or the fort settlements with bastions dated to early Copper Age of Los Millenniumlares in Spain, Castelo Velho do Freixo da Numao or Leceia (IV millennium) (Daudry & Fossati, 2017; Frontini, 1994; Fossati, 2003; Arcà, 1999).

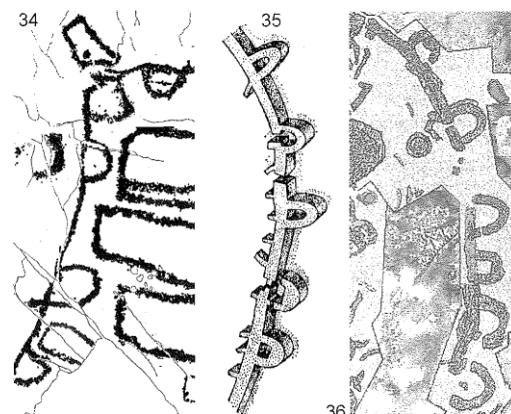


Fig.14 Left to right, perimeter line and eyelets of Vit.20 (Valcamonica), Copper Age bastions at Los Milares (Spain), Copper Age Leceia external walls (Portugal) and Freixo da Numao (Portugal) Copper Age bastions. Source: (Arcà, 2007)

Another interpretation for *bandolier* has been proposed by Defrasne and Fedele: *bandolier* would be ornamentation or a symbol that characterize male stelae (Defrasne & Fedele, 2015; Daudry & Fossati, 2017).

More complex alignments of geometric modules have been interpreted as "villages" (Vit.13) and so could be closer to a Copper Age date (Arcà, 1997).

Some of these last new series of themes that emerge around the final phase of Neolithic in Valcamonica present figurative and conceptual analogies with the megalithic art

of collective tombs in other parts of Europe and comparisons with the rock art units of Mt. Bego in France (Arcà, 2013; Fossati, 2007; Anati, 1979). The presence of new elements in the second half of the fourth millennium, reframing a persistence character with a continuity on statue-stelae, marks the transition of conceptual and figurative stage. But even though a preliminary



presence of these megalithic art elements is characteristic of Copper Age, a gradual monumentality in compositions already from Final Neolithic is recognized.

Fig.15 Upside-down U-shaped figures on the Rupe Magna di Grosio, Valtellina, sector AL Source: (Fossati, 2015)

A small thematic deposit of iconographic elements related to megalithic art appears during the Neolithic (Fossati, 2015; 2007; 1995; Anati, 1979): spirals, upside down U shapes (Fig.15). Spirals, have one definite superimposition from R. 4 Paspardo, where a spiral is underimposed to a middle Bronze Age human figure while on Rupe Magna in Grosio, Valtellina is underimposed to warrior of the first Iron Age (Fossati, 1995). However, the problem of a more precise chronological definition of meanders and spirals remains open.

Similarly, elements of “upside down U” shapes and cross figures engraved on flat rocks on Rupe Magna, are widely diffused in megalithic tombs’ iconography of Scotland, Ireland and Britain, and come about frequently associated (outer slab of the Knowth Mound, Co. Meath, Ireland) (Fossati, 2007; Fossati, 1995; Fossati, 2015).

A characteristic decoration pottery style of “meander and spirals” of (VBQ II) was present in northern Italy sharing some common motifs (Mottes, Petrucci, Rottoli, & Visentini, 2009) but no substantial habitation data attributed to this cultural moment exist in the valley of this period to link. Therefore, affinities remain those of megalithic art and those consent by superimpositions.

In Valcamonica the presence and distribution of polished and of colored stone axes (Vite, Breno, Lava di Malonno, Berzo Demo, Vissone Superiore, Provaglio) (Anati, 1979) at least locally, seem to have had some relation to rock art and a symbolic character relevant to aquatic resources (Arcà et al., 1996; Arcà et al., 2015; Barfield et al. 2003; Fossati, 2007).

Paspardo area, apart from the incredible concentration of maps dated to the pre-Remedellian phases, develops specific interest for one more reason: when the early phase of Ossimo-Borno begins, Paspardo must have already been known to the prehistoric people of the valley. Surprisingly, the engraved early Copper Age stelae and rock surfaces recovered so far in the area and its surroundings (Campolungo,

Capitello due Pini, Plas) “inaugurate” a monumental character in this orographic side of the valley, that does not include any map in their iconographic content. Instead, all the Copper Age boulders¹⁰ with topographic map engravings, are concentrated on the opposite side of the valley.

Concluding, it has been possible to briefly show, providing assumptions, how the first rock art establishments are introduced in a gradual process providing examples (Borno 1) engaging adaptation/assimilation and integration mechanisms, strongly involving landscape elements and expressions of space too. Combined to the information provided on chapter 4.2, the passage from the first topographic expression of maculae has been examined probably as a result of the introduction of an agricultural lifestyle, to more complex forms of a gradually changing society as a part and locomotory factor of a wider network.

If we accept geometric motifs as cultivated pieces of earth the most probable or results of pastoral activities, chronologically the earliest of them would be the first testimonies of human modifications on landscape, introduced with the agropastoral lifestyle in the valley. Differently, if they are representations of habitation structures and villages an idea closer to Copper Age social organization could be easier to be imagined.

¹⁰ In (Fossati, 2015) the monoliths are referred to Final Neolithic but here a Copper Age chronology will be retained for only one reason. Even though boulders contain topographic maps that date earlier from to the Copper age monumental character, as Frontini works demonstrated (1994), maps were engraved before the erection of the monoliths to vertical position, therefore their initial conditions were not relevant to monumentality which was acquired only later, after the support transformation. The problem is that it cannot be presumed the same for all monoliths, but the fact that there is at least one that verifies the transformation process and its times, provides in research an *ante*. Also, the radiometric dates from the area of Pat, consist only a *terminus ante quem* for the engraving moment and not for the support itself that we lack its original context and position since it was found in a secondary position.

SITE NAME	SUPPOSED CHRONOLOGY	FINDINGS	MAIN BIBLIOGRAPHY
Luine	Late Neolithic, Copper Age	rock art, pottery, lithic tools, red ochre	Anati, 1982; Anati, 1970
Cemmo	Neolithic, Copper Age	rock art, pottery, lithic tools, monumental construction, colorant material	Keller 2009; 2006; De Marinis, 1994ab; Casini, De Marinis, Fossati, 1995
Paspardo Area	Neolithic, Copper Age	rock art, pottery, lithic tools (Vit 36)	Fossati, 2007; 2006; Arcà & Fossati, 1995
Ossimo loc.Asinino Anvoia	Copper Age	lithic tools, pottery, micro fragments from copper fusion, colorant material, ceremonial construction	Fedele 1994; Fedele, 1990
Ossimo Passagrop	Late Neolithic Copper Age,	engraved monolith	Fedele, 1990
Pat	Late Neolithic Copper Age,	monolith, lithic tools, pottery, ceremonial construction, ornaments	Fedele, 1990
Borno	Copper Age	engraved monolith	Frontini, 1994
Bagnolo (Malegno)	Copper Age	engraved monolith	Casini, 1994; Ruffoni, 1891
Campolungo (Cedegolo)	Copper Age	engraved monolith	Maretta, 2006; 2004
Dos Dell Arcà	Neolithic, Copper Age	rock art, pottery, lithic tools	Rondini, Maretta, Ruggieri, 2018; Rondini & Maretta, 2017; E. Anati, 1974
Foppe di Nadro r.30	Neolithic, Copper Age	rock art, red ochre	Medici & Gavaldo, 2019; Meller & Padovani, 1977

. Table 3. Table of sites with rock art sequences and bibliography

4.3 Copper Age rock art

According to the literature, the third figurative rock art phase corresponds to the Copper Age. On the base of overlappings recognized on the monumental compositions of boulders and statue stelae, it has been possible the subdivision of the IIIA style as defined by Anati (Anati, 1975) into three stylistic phases, chronologically distinct (De Marinis, 1994): IIIA1, IIIA2, IIIA3. Their definition made by De Marinis has been based on style and the contents of their compositive elements, especially as those were represented on erratic boulders and stelae, supported by comparisons to archeological material (De Marinis, 1994). IIIA1 phase, to which this chapter is dedicated, corresponds to the second frequentation period of Remedello cemetery (Remedello 2/ Copper 2) (Fedele, 2011).

The overall composition of the style IIIA1 in the periodization of the Valcamonica rock art, presents a peculiarity in respect to all the other phases, in that the major part of the engraved elements ascribed to it, come with a significant change in the notions of space and ideological modifications. The frequent superimpositions of various motifs on the same and spatially delimited areas of the monoliths have allowed the definition of distinct rock art horizons, while comparisons with well dated material objects helped to better fix the chronological constraints of the stylistic phases of the rock art production.

In particular, the second Remedellian phase (IIIA1/ 2800-2400 BC) is characterized by a monumentalisation that is inscribed in the historiation of: 1) vertical rock surfaces, 2) blocks and monoliths, and 3) in Valtellina slabs of vaguely anthropomorphic shape, erected in open air locations. Sometimes those monuments present a certain alignment constructing areas of cult¹¹ (Baioni & Keller, 2013). In Valtellina some few have been documented in the surroundings of Teglio, while in Valcamonica there are in more sites, the most famous of which are the plateau of Borno - Ossimo and the site of Cemmo. However, even though the vast majority of figures of this time are described in monumental compositions, rock art production continued to exist on flat rocks as before, but without following the structure of the monumental compositions and retaining a more restricted thematic unit, that was comprised principally of weapons, animals, ploughing scenes and some bucrania that lack from monoliths.

¹¹ Or better actually, sites where some ideological aspects can be seen, but not a proof of real cult is substantially supported yet by data. Maybe some sites where spontaneous ritual frequentation was taking place can be imagined, as Fedele has rather correctly pointed out (Fedele, 2011) in reference also to U.Tecchiati "natural sanctuaries" in his note, p. 86. Without getting into deep nomenclature topics, is recognized here that sometimes the use of names that may recall a specific contextual meaning can be misleading.

Understanding a perfect multi-layered synchronicity between figurative elements on the rock and tangible material from the past is difficult may even impossible, since it would be like searching finding a fixed start and an endpoint of an ideological cycle using external tangible proofs. So, identifying transition, it will always pertain to some extent a character of conviction also because every present is somehow connected to the past.

In this sense we see that, while Copper Age in funerary contexts (Copper 1-Remedello 1) had already begun, rock art may have been still occupied by topographic maps of various type (IIB style) of Neolithic but was showing features linked to a transformation process in its structural foundations regarding space, with a gradual change of iconographic content.

So starting chronologically, in IIIA0 (Copper 1) elements of mature Neolithic (geometric modules) coexist with some new elements typical of Copper Age phase 2 and on different support. Fringed mantel that we find on monumental compositions on monoliths (e.g. Cemmo 20), it appears on the stone outcrop of R.9 Pasapardo Castello area (Fossati A. , 2014-2015), while topographic maps appear on vertical monoliths e.g. Borno 1 and stelae fragments from Pat (Keller, 2009).

Of special interest is the r.36 of Vite - 'al de Plaha, again from Paspardo area, onto which *funghi* topographic maps are represented beside two daggers of Remedello type blade but with quadrangular pommel that finds no material confront so far and is supposed to be earlier version of the typical Remedello ones. Exactly in that rupestrian context has been recovered a polished axe of a morphology that refers to a transition Late Neolithic-Early Copper Age, verifying at least one moment in context in a moment of transition (Fossati, 2007). The iconography of IIIA1 (Copper 2) motifs on the other side, includes weapons, animals, human figures, ploughing scenes and symbols.

Exclusive for the compositions of Valcamonica/Valtellina is the reproduction of animal figures. An increased interest in hunting is recorded in this period as well as a frequentation of higher altitudes that maybe be related to pastoralism activities and search for raw materials (De Marinis & Pedrotti, 1997; Keller, 2001; Keller, Baioni, & LoVetro, 2010).

The rock art fauna is principally represented of cervids of two types: red deer (*Cervus elaphus*) and roe deer (*Capreolus capreolus*). The deer are represented adult with the indication of antlers for the male, isolated or in groups comprised of only male deer while other times accompanied by some does. Usually, they follow the same direction in the panel and are often associated with two other symbols: the sun and the fringed mantel. In the case of Capitello dei due Pini, a semicircular motif on the upper part of the composition is engraved that recalls semilunar deer antlers and at the same time a rayed

sun. Those two symbols present close affinities probably related to the seasonal cycles of nature when the antlers of the deer fall and rebirth just as the sun resurrects following the direction from sunrise to sunset (Marchi, 1997). Their relation is often put side by side to the local legend of *Glisente* related to deer and sun, residing on the areas between Ossimo, Berzo and Breno where the greatest number of monoliths has been found (Casini, Fosssati, & De Marinis, 1995). The central role of the deer, may illustrate also its outnumbered presence in excavated faunal remains in respect to other species in the excavated sites (Tecchiati, Castiglioni, & Rottoli, 2013).

Other animals are caprids: chamois (*Rupicapra rupicapra*) which is distinguished for its small horns vertically raised, and ibex (*Capra ibex*) whose horns form a long semicircular profile. Very often caprids are represented in groups as they in fact do.

Domesticated dog (*Canis lupus familiaris*) was engraved on the rocks with its tail curved upwards. This characteristic distinguishes it from other wild canids, such as the fox (*Vulpes vulpes*) and the wolf (*Canis lupus lupus*), which are also represented. Both of them are identified in small groups, more rarely isolated on the rock panels.

Finally, the presence of suids, both in their domesticated form (*Sus scrofa domesticus*) namely pigs and wild (*Sus scrofa scrofa*) or else boars, are represented too. Sometimes, just as with wild canids, it is difficult to say the difference based on their representation. Pigs usually have a curved tail while boars more straight or oblique. They appear in groups, or isolated. And last but not least, oxen, usually represented in couple in the ploughing scenes.

As some first studies have shown (Daudry, 2011), by the end of early Copper Age phase statistically most of the animal species representations in the Valcamonica rock art is almost present, once with their first appearance. In the IIIA2, the zoomorphic? theme presents gradually a decline, anticipating its almost absence from the Valcamonica rock art of Bronze Age. The inclusive way of introduction of the animals in the iconography, must be related to the practices of domestication and hunting, but also the benefits of secondary products exploitation.

Domestication of species (flora and fauna) did not only had value for the evolution of species or the implied changes in the subsistence strategies human adopted. It is a process of transition from wild to domestic, not only of animals but of human too and the self-identification of the latter as an operator of this dichotomy. The extroversion of human figure on material support would come as a logical subsequent of in this process. The structuring of dichotomy between those two realities (wild-tamed) presupposed two things 1. Their conceptual division and envisioning of the new reality and 2. a capacity

of controlling them subsequently with learning gestures using techniques as a mnemonics mechanism (Oosterbeek, 2019).

What the advent of megalithism achieved in Valcamonica rock art of this period by mainly changing the support (flat and solid to vertical and - sometimes- movable surface), was the objectification of new modes of thought and the changing character of social relations taking place (Tilley, 2007) and illustrate the results of previous conquests such as that of domestication.

The figurative reproduction of animals of course may have stressed their importance for the human's living that the exploitation the secondary products have allowed. What is unique in Valcamonica/Valtellina stelae is that the representation of domesticated animals and human figure on the rocks for the first time was placed side by side, and wild animals were put together with domesticated animals. Human figures are represented in a schematic way with linear body, extended hands, feet in upright V and a pommel head. Their presence implied a global understanding of the human, in a process of identity formation under the construction of personally acquired knowledges, which would create a new anthropic-domestic space (Oosterbeek, 2019).

In some cases, human figure is involved in ploughing, which is the first representative scene illustrated on the rocks. The plow was a technological innovation that apart from having brought about radical changes in everyday life of prehistoric people, underlined another aspect of domesticated animals: the energy and the power of effective collaboration (Fedele, 2012). The ploughshare was always in the type of "a chiodo" (nail), adapted to terrain with stone filling. The few ploughing scenes that exist on monumental compositions are concentrated on the left orographic side of the valley in the areas of Cemmo, Ossimo, Bagnolo, Borno.

Albeit the exuberant presence of animals on the rocks, that undoubtedly retained some symbolic value, no indications result from excavations for ritual or cult practices to involve them (Tecchiati, Castiglioni, & Rottoli, 2013).

On symbols, rayed solar discs, series of horizontal lines (belt or ploughing furrows), "combshape", upright and upside-down «U shape» motif, a three rayed sun and the fringed rectangle complete the Early Copper Age figurative unit that characterizes the monumental compositions (Casini & Fossati, 1994). Those stelae and boulders sometimes were erected in alignments with the engraved side facing East as the discoveries of Pat and Anvoia (near Ossimo) as well as the Cemmo found *in situ* demonstrate (Keller, 2009). The attribution of the above figures is possible through stylistic division and in some cases comparison to archaeological material, e.g. combshape.

Unlike was the case of weapons and other metallic objects which is the most characteristic and frequent theme of this period. This class of objects provided a precise reference, both chronological and cultural. The Remedello cemetery site, as well e.g. Spilamberto, provides key-material comparison of Copper Age rock art (De Marinis, 2013; 1994). The importance of weapons is well represented by their increment in funeral contexts, and their presence among the engraved figures as well. In difference to other motifs, weapons, especially Remedello daggers have a very frequent presence on flat rocks, either individually or on groups. Foppe di Nadro is one rock art area where rocks, such as r.4, has a well-represented Copper Age phase (Medici & Gavaldo, 2019).

The most represented weapons are: daggers, axes and halberds that have different morphologies in different times. The first phase is characterized by the Remedellian dagger, whose blade has a characteristic triangular shape with the straight base. Sometimes it is in its sheath and the handle has a series of dots close to the edge of the base. It decorates the surfaces of monoliths but is very frequent of flat rocks too (Medici & Gavaldo, 2019; Sansoni & Gavaldo, 2009).

More frequent in Valtellina stelae, the reproduction of the Remedellian dagger is in its sheath but also in some cases in Valcamonica too (e.g. Cemmo). Of weapons, arch is only present in the stelae Tirano/Lovero Valtellina, similarly to the Laces stelae and this weaponry in excavation is inferred only indirectly from the presence of flint arrowheads.

Laurel- leaf shaped daggers, whose material representatives are on flint, is the closest confront to the halberds engraved with a sinuous handle and a similar blade usually on the upper part of monumental compositions either in couple (Capitello dei due Pini) or in association to axes. The laurel leaf daggers, are chronologically estimated little before the Remedello cemetery (De Marinis 2013; 1997), namely on the final Neolithic¹².

Another shape of dagger, chronologically synchronous, is the one from the statue stelae of Arco I with its rectilinear base and handle. It has not been documented in the area of Remedello (but at the moment is only known from two examples: Montebradoni and Fontino (Genick, 2012, pp. 270; fig2A.2-3; De Marinis, 1994). Similar reproduction of this motif with handle slightly curved on the top and blade without the central nerve, is found engraved on Foppe di Nadro r.4, and the rocks of Valle delle Meraviglie Z IV, Fontanalbe Ciappe in France (Arcà, 2013). The halberds are typically engraved weapons in both Valcamonica and Valtellina, the Atesino group and M. Bego (Arcà, 2013).

¹² For the Remedello cemetery only one finding with truncated base from t. 86 that could be attributed to this type has been found, that even from the author is not considered representative (De Marinis, 2013).

Axes are less represented and are divided into two types: with fixed handle or transversal with proximal perforation (Casini, 1997). The knee shaft handle axe has a trapezoidal blade, that is fastened to the handle by a horizontal line as represented in the Bagnolo 2 and Caven 1,2 boulders (Casini S. , 2001). No proposal can be formulated for its identification in the archaeological context. The shaft hole type was probably made of stone with the handle connected to the body near the heel, the most known example of which is from Fornovo S.Giovanni (BG) of polished stone. Some rock art representations of this type are encountered on Borno 4, Bagnolo 1, Cemmo 2.

In the IIIA1 style, the sun motif dominates the greatest part of monumental compositions and always occupies the upper part of the boulders and it is usually associated to weapons (Casini & Fossati, 1994; Marchi, 1997; Fossati, 2015).

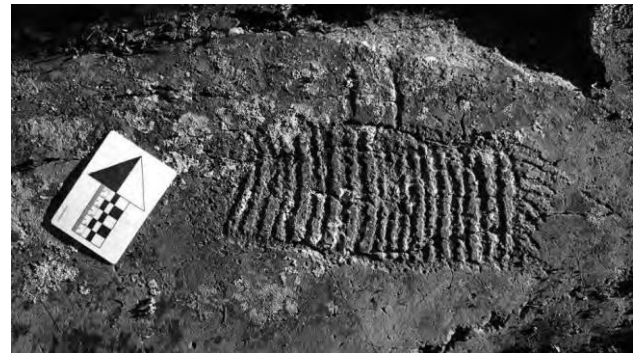


Fig.16 The fringed mantle from R.9 loc. Castello Paspardo. Source: (Fossati A. , 2014-2015).

The enigmatic “fringed rectangle”, a square/rectangle with internal vertical lines of chess motif formation with added fringes on its vertical sides, comes often associated with animals and so it probably is associated to male subjects (Casini, 1994; Fossati, 2015). It characterizes monumental compositions but there is an example on the flat stone outcrop R.9 Castello Paspardo (Fossati A. , 2014-2015) (Fig.16) In some cases, is completed with two vertical lines in the middle part of the upper long side, suggesting that it was probably a cloth hanged. The most probable interpretation is provided by the statue stelae of Trentino Adige where the represented personages are often equipped with a kind of cloth decorated with rectangle bands disposed in a chess pattern. A parallel pottery decoration comes from t.2 of Arpachiyah (Nivine) where two feminine figures hold or hang a fringed cloak devoid of internal decoration (Casini, 1994). The difference is that the rectangle of Arpachiyah has fringes on three sides instead of two like in Valcamonica representations. However, the downright inclination of those on the lateral sides and the verticality of those from the inferior is what help us infer its positioning. Iceman Oetzi’s restoration of clothing, has identified a combination of chamois and sheep in his coat (Hollemeyer & al., 2012) secures with greater precision the above assumption and chronology.

The second most frequent association of the cloth is the binomial sun-weapons, most representative in Ossimo 7, to which overimpose three human figures with triangular body of the IIIA2 Campaniform

phase (Casini, 1994), suggesting a previous date IIIA1 for the rectangle. When it is not engraved in primary position, it comes isolated on the faces of boulders or terrain rocks (R.9 loc. Castello, Paspardo) (Fossati A. , 2014-2015).

Conversely, other motifs are more probably connected with female monoliths, such as double spiral, which is represented on numerous monoliths from Valcamonica and Valtellina. Moreover, in the cultural



Fig. 17 Pendant of double spirals from Pat area. Source: (Keller, 2009)

area of Ossimo Pat metallic objects in the shape of double spiral were found (Keller, 2009) (Fig.17) and it was engraved as decoration element or pat of female apparatus in the stelae of Trentino (Pedrotti, 1995). It is often combined to other personal ornaments such as necklaces, combshape and pendants. The female gender stelae are composed apart from the double spirals, U shape pendants upright or reversed, with more probable the antiquity of the latter, and a “three rayed sun” motif (Casini, 2008).

The so called combshape figure is a small motif combined of one horizontal line with a series of other lines that vertically intermit. Its significance remains obscure and comes often associated with the above-described motifs on female stelae. The three main symbols of this phase (dagger, spiral, pendant, cloak) recur individually or altogether in one stone perhaps as a schematic representation of a transcendental entities (Casini & Fossati, 1994; Fossati, 2015).

PHASE	R.A ELEMENT	UTILISATION OF AVAILABLE SPACE ON THE ROCK	LAYERS OCCUPIED	PRINCIPAL AREAS
Neolithic 1	Maculae (object)	Wide but precise since the outer space is encapsulated in the delimited form of maculae motif on the rock. Delimited to what natural support provides and adaptation. No specific scheme. _ Delimited cultivation of land with stick.	Layer1_flat surface	Paspardo
Neolithic 2	Geometric motifs (object)	Delimitation of space in terms of: 1. rock surface/ 2. motifs condensing external	Layer1_flat surface	Paspardo, Luine

		reality. Technological and techniques advances (variability of techniques in cultivation- variability of geometric elements). Life reality becomes more organized and specific. Rock art _Paspardo “villages”. Settlement “villages “ _Breno area.		
Late Neolithic / Early Copper Age (Copper 1)	Geometric motifs/ first Copper Age elements (weapons, mantel)/ amplification of iconographic repertoire. Numerical increase and versatility of r.a motifs (object/action)	Delimitation of natural space. Start converting place to space. Rock art, some experimentation. Do not discard of old in r.a units yet but at the same time its concept is revised over new space/contexts. Return to old sites- revision of the past- in settlements and foundation of new. Return to previously engraved surfaces. Now presence of rock art motifs explicitly specific.	Layer 1, Layer 2_ indications of verticality (boulders)	Paspardo area esp. R.36 Vite, and R.9 In Valle, Luine R.6
Copper 2	weapons, animals, human figures, plowing scenes and symbols. (object, action)	Clear construction of space. Cultural landscape. New sites, new iconographic repertoire, new syntax.	Boulders and stelae. Vertical rocks	Ossimo Cemmo Bagnolo Borno

Table 4. Table of basic conceptual and behavioural tendencies on social and rock art manifestations from Neolithic to Copper Age in terms of the perception of space (elab. C.A).

SITE	ALTITUDE
Cemmo (Pian delle Greppe)	403m
Luine	322m
Breno castello	353m
Ossimo Pat	813m
Lovere	314m
Seradina	460m

Table 5. Table with some Copper Age sites and their altitude (source: Pini et al., 2016).

4.4 Megalithic monuments and statue stelae

The phenomenon of boulders and statue stelae makes its manifestation in northern Italy at the end of IV and beginning of the IIIrd millennium, under the general flow of megalithism, which takes wide extensions from the Atlantic to the Pontic region (Telehin & Mallory, 1995; Fowler, Harding, & Hofmann, 2015). In the Alpine region, it is identified in various zones with four groups which correspond also in terms of their typology each: Valle d'Aosta and Sion valais on the west, the Lungiana group, Valcamonica-Valtellina in eastern/central Alps, Lessinia and the group of Atesina in Trentino -Alto Adige. Though all of them witness similar elements and are well inscribed in a wide common ideological sphere (Anati, 1975; Baioni & Keller, 2013; Casini & Fossati, 1994). They become manifested though with some local characteristics.

However, what would be the significance of these monuments with rock art compositions? Many proposals have been expressed so far on the various groups in northern Italy. Gallay for example, for the statue stelae of Sion proposes the image of the leaders of the community, in honor of which were erected from time to time and then demolished at their death, to be reused in the construction of the monumental tomb (Fossati, 2007). Mezzena, for the stelae of Aosta, believes that they represent heroes or divinities of a complex pantheon, already outlined in its fundamental components (Fossati, 2007). For Trentino Alto Adige, Pedrotti puts forward the hypothesis for a commemoration of illustrious deceased people through images, which they acquire over time divine valence (Genick, 1996, p. 285; Fossati, 2007). For Valcamonica, stelae and boulders have been interpreted as possible images of deities (Casini, De Marinis, & Fossati, 2014) or some form of ancestor resemblance/worship after the Ossimo area findings (Fedele, 2013). Anati that has been among the first researchers of the phenomenon and its documentation in the valley has gone further to a cosmological synthesis under the representation of anatomical details of human figure and at the same time the expression of a union of a supernatural being, manifested in a tripartite scheme after the subdivision of the historiated surface (Anati, 2008; Anati, 1977). This model, even though manages to identify the unity permeating the monumental compositions and render it readable in a comprehensible pattern, it may be hard to apply in some compositions (Fossati, 2007, p. 82).

A well described problem, excluding few exceptions, both for Valcamonica/Valtellina and Europe, is that stelae and boulders are identified in a secondary position, that is reused in other structures or transported by natural phenomena, letting therefore their dating out of their original archaeological context, providing then only a *terminus ante quem* (Mezzena, 1999).

The monumental compositions of Valcamonica are: Cemmo, Ossimo-Anvoia, Ossimo Pat (IV-I millennium), Passagrop, Asinino Anvoia, Ossimo-Borno, Cedegolo – Campolungo, Capitello dei due Pini, Bagnolo, Plas Roccia del Sole, Foppe di Nadro r.30 (A phase), Pian Camuno. According to the literature, since the sites belong to the wide Valtellina-Valcamonica group, the sites of the Tellina valley will be considered too, i.e. Chiuro, Tirano and the complex of Teglio. The monumental compositions will be presented according to their phases of historiation as those established on chapter 4.1.

IIIA0 Copper 1, 3350- 2900 BC

This phase, proposed by Francesco Fedele (Fedele, 2011), corresponds to the first iconographic frequentation documented on boulders and is characterized by topographic elements in Valcamonica and in Valtellina only by the presence of bandolier.

At the moment, only 8 monuments in Valcamonica belong to IIIA0 phase (Borno 1 face B, Bagnolo 1, Ossimo 8, Pat 8, Pat 9, Pat 28, Pat 29, Ossimo M4), presenting in general terms all kind of topographic modules, which gradually fall in decline, while a more persistent presence of the bandolier motif is noticed. Two of them, maybe the most important for their superimpositions, are Ossimo 8 and Borno 1. Moreover, they drive interest also for their dimensions as the biggest monuments discovered in Valcamonica so far. The two monoliths (Pat 28, Pat 29) from the site of Pat were found inside the mounds of an excavated area, while the other monoliths were retrieved in a secondary position.

The question of whether topographic engravings on these monuments can be interpreted as incidental or not, and for what reason, is an argument that has already been put forward by Fossati (Fossati, 2007; Fossati, 2002) and still remains difficult to be answered. But if that is the case, one should further also ask in retrospect, why on the area of Paspardo (Vite), where maps are the principal theme, there are no such traces of Copper Age monumentality of this type. Unless a special interpretation is merit to be given on rocks 41 and 42 of Vite (Paspardo)¹³ where double rectangle figures are engraved on a vertical wall facing a small stream. It is true that topographic figures recur in monumental compositions on vertical walls as well, such as the case of Paspardo Plas (Fossati, 2007a) and Pian Camuno (Priuli, 2001) (Fig.12).

¹³ On vertical rock also Vit.13 (Fedele, 2011).

In Ceresolo area (now Bagnolo), in a moraine formation, two engraved boulders were brought to light at a close distance from one another. This spatial and thematic proximity leaves open a speculation for a provenience of the same contextual origin (cult area?) (Casini, 1994). Bagnolo 1, a Verrucano Lombardo sandstone boulder of brown/violet color, was recovered from an excavation for the foundations of a house in 1963, deprived of other archaeological material associations. Almost ten years later, Bagnolo 2 came to light under the foundations of a house that had been reused.

Bagnolo 1 (Fig.18) presents a natural levigation of surface. The complex of engraved elements includes two shaft hole axes on the upper part with blades facing outwards, 8 Remedellian daggers with semilunar pommel in two vertical lines and one in the middle, all facing the same direction. Below, on the base, three parallel horizontal lines (similar to Borno 6 and Ossimo 8) probably in representation of plowing furrows. In the space between the two axes, a double rectangle is pecked, one of which, a bit shorter and narrower. Similar maps are frequent in Vite Paspardo (e.g Vit.13), but their short and narrow side comes under

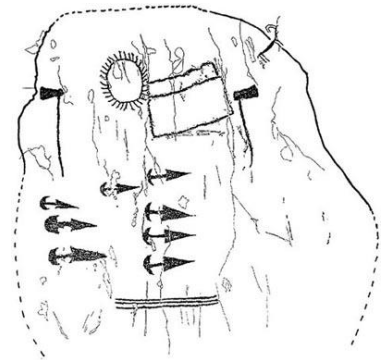


Fig. 18 Bagnolo 1 boulder, contact tracing (Cooperativa Archeologica Le Orme dell'Uomo).

(Casini S. , 1994). It cannot be excluded a different position of the map might have been pecked when the boulder was lying in a different position, probably horizontal. A sun has been added later, during IIIA1, overimposing the rectangle with its rays. On the upper right side there is an ibex with a rectilinear body, slightly sinuous belly and curved horns. Apart from the rectangle (IIIA0), the rest of the composition belongs to the subsequent IIIA1 phase (Casini, 1994).

Around 250m far from the confluence of Trobiolo, in the bed of the stream Undine of Borno community, the boulder of Borno 1 had been recovered in a secondary position, probably fallen from the plateau located above after a landslide. The covering soil did not yield any archaeological material. It is a block of gray/pinkish sandstone with its surface intentionally shaped and a surface almost smooth from erosion. If placed vertically, its great dimensions render it similar to a menhir. The erosion of the incised surface makes hardly visible the figures, especially on the upper part of face A. In total there are four engraved faces: A, B, C, D (Frontini P. , 1994). Face B seems to be the oldest, extended in a surface of trapezoidal shape hosting elements of IIIA0. Two types of maps are identified: rectangle motifs completely pecked, and others in contour and filled with dots. We can refer in addition as a variant of the first, one with two entirely pecked rectangles united with a small segment. The chronology of this surface is marked with a *terminus ante quem* by the Remedellian daggers (IIIA1) covering the topographic maps. It has been

proposed that initially the boulder was placed flat on earth and the macule were pecked first (Frontini, 1994).

The next stylistic phase of topographic maps IIB (Arcà, 2007) was made, seen with the narrow side of the rectangle on the bottom (Fedele, 2011, p. fig 3), just like the way the maps of R. Vit.13 are represented (Arcà, 1999). Only in a secondary moment was the boulder erected, with the aid of ropes, that left their scars on the surface, so that the human figures of the plowing scenes (IIIA1) do not result vertical (Frontini, 1994), and so rectangles changed orientation.

In 1983, during the activities for the construction of a garage in Ossimo inferiore, the big boulder Ossimo 8 came to light. Its great dimensions, probably the highest found in Valcamonica so far, and its ogival shape could enlist it in the category of real engraved menhirs (Casini, 1994). The bad preservation state of the rock surface makes difficult its reading. The right part is fractured and some damage was provoked during the moment of the discovery. It has two engraved surfaces and shows 6 historiational phases (Fedele, 1990). On the second, only a fringed rectangle on vertical lines (as Ossimo 5, 7) and chess motif on the upper part had been made. Face A on the contrary, in its great part is covered by topographic compositions of rectangles and small depressions, which do not interfere with the rectangles, and are pecked in alignment. The rectangles are subdivided by internal lines, creating a bipartite scheme just as in Bagnolo 1 boulder (Fossati, 1994). In a secondary phase some bigger depressions were probably added, that in some cases come over the lines of the rectangles. No plowing scene belonging to IIIA0 (Fedele, 2012) has been possible to be identified by the author of this thesis.

Staying in the area of Ossimo, on site OS4 (Asinino Anvoia location) the fragment M4 catches our attention. A macula underimposed to animal figures (canids?) incised in different moments, confirms the reutilization of rock surfaces with topographic maps during the Copper 2 and 3 phases encountered in the above Borno 1, Bagnolo 1 and Ossimo 8 (Daudry & Fossati, 2017). Even though regularly maculae do not define IIIA0 phase, the M4 fragment, just as in the previous examples of Borno 1 face B and Ossimo 8, has been selected to be presented here for its rarity as a rock art documentation itself on monumental compositions and for the antiquity of the date it provides.

Other indications of this phase from megalithic monuments, come from the excavated area of Ossimo (locality Pat) (Keller, 2009). The site is placed on a slope terrace in the forest, in the area of Ossimo Borno at 800m a.s.l. It is comprised of a sanctuary founded in the first half of IV millennium, between late Neolithic and early Copper Age, that ceases its use in Early Bronze Age with some revival between late Bronze Age and Iron Age (Keller, 2009). The location on the eastern part of Pat includes an area with

alignments of monoliths, placed in the center of two areas with mounds and fences. Southwards of the megalithic alignment, 3 circular tumuli of stones have been identified (Keller, 2009; Keller, 2017). Originally, they were covered with sand and had been circumferenced with stones. From the mound A, important archaeological material occurs including a pottery vessel, a wooden container decorated with copper foil studs, and a necklace with six rows of stone rings (Keller, 2009). From its perimeter, the monoliths Pat 8 and Pat 9 have been recovered positioned on the west and north respectively. They featured topographic engravings, cupmarks and filled rectangles. The content of a post hole and pits at the base of the mound provided a radiometric date 3700 and 3510 cal. BC (GX 31248: 4820 ± 40 BP), stabilizing a probable synchronicity to the first installation of the site and the topographical engravings on late Neolithic / early Copper Age (Keller, 2009; Keller, 2017).

Data come also from the votive circle 174 of Pat area, with the recovery of a series of arrowheads (grouped together pointing north) and the monoliths Pat 28 and 29, found reused in the internal structure of the circle (Keller, 2009). The iconography of the two monoliths, included juxtaposed filled rectangles and cupmarks, as well as a dagger with triangular blade with wavy contour and trapezoidal shank (Keller, 2009; Daudry & Fossati, 2017: fig 31, p.43). The weapon does not belong to the IIIA0 phase. Unfortunately, the quality of images published (Keller, 2009) does not allow a further commentary on the engravings of Pat monoliths. However, it will be mentioned here the proposal of Arcà for a probable date of them to the initial IIB style, so IIIA0 (Arcà, 2007, p. 42).

Considering all topographic engravings on boulders and stelae, some brief conclusions on overlappings can be made. In general, spots are more difficult to be encountered in superimpositions but in the case of Borno 1 are superimposed by Remedellian daggers, while other times by the double rectangle. On Bagnolo 2 boulder, a double rectangle is superimposed by a solar disk belonging to the IIIA1 Copper Age phase, signifying its anteriority. Lengthened dots and oval shapes are often associated with the double rectangle to form the strange composite mushroom figures; these usually appear on large terrain rock surfaces (Vite r.36), but do not lack from vertical rocks (Pian Camuno R.2) (Priuli A. , 2001) and boulders (probably Borno 1, B). The most questioning figure of 'bandolier', appears associated with the Remedello dagger (IIIA1) or enclosing other figures (daggers, animals...), but can have a longer perdurance in time maybe even to early Bronze Age and therefore assuming other associations with chronologically distant figures than those in examination here. All the above elements belong to IIIA0, or IIB unit of topographic maps as defined in (Arcà, 2007), except for maculae which is the most ancient topographic element.

During the study of this thesis, for the IIIA0 on megalithic monuments, we can notice the following:

- Two of the boulders with topographic maps, have monumental dimensions (Ossimo 8, Borno 1)
- All of them, apart from Pat, are in great part of their surface superimposed by later frequentations.
- Topographic compositions on boulders and vertical rocks are of the same type found also on other open air flat rock surfaces, such as the area of Paspardo. Interestingly, Paspardo area (Vite) with the biggest concentration of topographic maps in the valley is located in a high altitude (~1000m), but does not bear indications of monumentality during Copper Age, in this ideological change of IIIA1. If their presence on monumental compositions is not coincidental, the (last) revival, even of early motifs (macule), occurs with unchanged figurative expression on monoliths just as on flat rocks.
- However, if as described in the case of Borno 1 and Bagnolo 1 the boulders in the moment of engraving were lying as a horizontal surface on the earth, maybe the conceptuality was still that of “flat surfaces” and their erection was just an action of reuse and not monumentality. Therefore, the importance of monumentality for the maps on megalithic monuments itself, does not apply. This could justify in part the case of Vite.
- No specific syntactic rules on the surface (re)applied for the maps, as we to see for the subsequent IIIA1, and instead, much part the exposed surface is covered.
- During IIIA0 there are no indications, according to the excavation data, for sacralization of space or any ritual character. The archaeological material, in the cases where maps have been found is not related chronologically to the monoliths. Maybe apart from Pat, but we should be cautious to drive conclusions, because the boulders have been found reused in secondary position. That means that the C¹⁴ dates provide an *ante quem* for the date of reuse but not of the moment of engraving. So, maps, in the boulders of megalithic alpine art do not assume definitely ritual practices as part of their original cultural content itself as a logical consequence, but only their transformed value in their reuse from IIIA1 and on.

Engraving on the boulder, results only to one phase for IIIA0. The tendency towards a multiple use of disposed area even the one covered by maps, will come in IIIA1. The question is why on the site of Cemmo, where plowing furrows have been excavated on the boulder's surface no topographic elements are engraved. The association of pottery fragments with non-perforated holes (typical but not only of IIIA1 phase) to the furrows (Keller, 2009) is not yet clearly indicated.

The monuments inscribed in this period, are not all engraved for the first time. An experience of returns and reuse is part of a wider tendency evident also in the selection of habitation settlements (Keller, 2001) signifying an ideological transformation and cosmovision. Changes were also made sensible on rock art. This tendency of revision started already from Final Neolithic/Copper 1 (Keller, 2001; Keller, Baioni, & LoVetro, 2010) in the terms of transition, when the maculae of IIA were revisited and overimposed by a more recent phase of topographic maps IIB setting the rupestrian art scape of IIIA0 phase. In addition, a more intense frequentation of landscape is noticed for cultural reasons with the foundation of megalithic sanctuaries, such as Cemmo and Ossimo.

In Borno 1, face A, C, D are engraved for the first time now and a return on face B occurs. On face A



Fig.19 Borno 1, face A. Source: (Casini, De Marinis, & Fossati, 2014)

(Fig.19), a three rayed circle, a filled circle and a triangular figure are covered by a motif with homocentric circles and three bands of rays. Other motifs include: a fringed rectangle with a chess pattern, two double spirals with short vertical lines dripping from one side, a U-shaped collar and 7 Remedellian daggers in two asymmetric vertical lines, counterposed with the handle. Animals are comprised of four ibex, and three chamois. It has been proposed by Frontini (Frontini, 1994), that the rectangle was originally symmetrical on its sides and that the line on the left is a fracture of the rock. The importance of this face is that a representative amount of IIIA1 motifs is

combined. As noticed: *"The unit consisted of a rectangle, a circle with three beams of rays, collar and circular pendants is unparalleled to other boulders in the valley, moreover while the single pendant can be associated with weapons (Bagnolo 2, Aosta and Sion stelae), this is not occurring when there are two or more pendants (Caven 3, Ossimo 1)"* (Frontini P. , 1994, p. 194). The assignment of the composition to IIIA1 persists due to the chronology of the daggers and the rendition of animals.

A second phase of face B comes to conclude the panel. Now that the boulder is turned, a disc is engraved on the pointed corner of the upper part in contour and below, over the maps, a halberd with laurel-leaf blade and on the base of its handle there are three Remedellian daggers in vertical line. Under the third dagger and over a map there is a human figure in profile with quadrangular body, extended hands and sticky legs. On the left, there is a representation of a plowing scene, over the map with the man holding the handle of the plow driven by two oxen. It is interesting to notice, that the plow placed in the end of the map is not cancelling, but rather comes as a complementary element almost

creating a narrative, a vision of plowing, taking advantage of the previous motif. A quite similar approach seems to have been put forward from Fedele (1990, p. 343) for Ossimo 8, acknowledging that the accumulation of animal figures in all phases has been done after the consideration of the topographical maps, seeing them as a source of inspiration for further historiations. Two ibexes and one dog in oblique position complete the scene on the right.

Animals, occupy exclusively this time face C: deer with vertical antlers, does, ibex and another animal difficult to decipher (chamois?). On face D, again animals are occupying part of the surface: 2 deer, 1 chamois, 8 does that as in face C they present a depression in the backbone. In a later phase, an ogival shape of two homocentric lines, with two sub-quadrangular protuberances to the inside divided internally with a line, superimposes part of the animals. Inside it, a Remedellian dagger with semilunar pommel is represented. The chronological attribution of this motif is quite questionable. Frontini (Frontini, 1994) place them both in the same chronological horizon of the dagger and the rendition of animals altogether in IIIA1, albeit the dagger is executed with a different pecking. This pattern is known also from other boulders in Valcamonica/Valtellina area, enclosing either a dagger (Borno 6 and Vangione 3) or a halberd with ogival blade (Valgella 3, Vangione 1,2), and in Ossimo 3 a deer (Casini S. , 1994).

Bagnolo 2, of same lithology to Bagnolo 1, was also discovered in a secondary position. It presents a naturally smoothed surface and ovoid shape. Only one side is engraved. The motifs are all attributed to IIIA1: rayed sun on the top, reversed U pendant with double spiral attached on its base, two Remedellian daggers, two halberds, animals (cervids, wolves, does) and a plowing scene. Apart from one wolf and the plowing scene, all weapons and animals face left. The human figure in profile, presents a sub rectangle body with filiform hands in extended position and legs in V. His feet as the hoofs of oxen, are accentuated. The overall aspect of the scene finds confront to Borno 1, but not much in Ossimo 8 and 7. The first halberd has the same sinuous hold as Capitello dei due Pini and a blade of trapezoidal profile and rectilinear cut. The second weapon is mid shaft hole axe with a more stocky handle and a blade of S.Giovanni type. There are no superimpositions and it is difficult to identify the exact chronology, but for the presence of weapons and the general aspect is attributed to IIIA1 (Casini S. , 1994).

Undoubtedly, the most important area together with Ossimo for the description of IIIA1 cosmology, repertoire and material context is the site of Cemmo. After its discovery, the site has been submitted to a series of successive excavations (Anati E. , 1967; Keller, 2009; 1999-2000).

The 1983-85 expedition has brought to light a new stela Cemmo 3, and with later excavations (2000-2013) (Keller R. , 1999-2000) the existence of a rather ceremonial site of Copper Age (IV millennium) has been revealed. Detailed descriptions of the site have already been published by Keller (Keller R. , 1999-2000; 2010; 2017; 2018) so here only a brief summary of each frequentation moment will be presented.

The site has been founded at the base of a high cliff overlooked by the Concarena mountain, in the glacial valley of Pian delle Greppe. Its location in an amphitheater depression positioned at 400m a.s.l., in proximity to the confluence of Torrent Clegna and river Oglio. The area is defined on the west by a high overhanging slope and on the East by rock buttress that isolate it from the main valley (Keller R. , 1999-2000).

The deposits of the cliff and landslide close it to the north, while on the southern part is partially barred by an alluvial fan of Torrent Clegna that expands on the foot of a rock wall on the west of Verrucano Lombardo (a gray-violet Permian sandstone), mingling with the deposits of the cliff, lying at least for Iron age. The two boulders (Cemmo 1, 2) on the base of this wall, were detached from it after a landslide around the first half of Holocene (Keller R. , 1999-2000).

The area has been frequented from ancient Mesolithic and later again during late Neolithic, as some pottery fragments probably belong to VBQ III (Keller, 2009).

However, the incisory activities start only from Copper Age, with the engraving of the two boulders during the Remedellian phase (2800-2400 BC) and was completed during the Campaniform (2400-2200 BC) when the stela 3 and 4 were erected. The final phase of historiation, identified on Cemmo 3 (Fedele, 2012) took place in ancient Bronze Age (2200-1600 BC). During this phase, an enclosure wall was made-monumentalizing or establishing the area and defined during Copper Age by plow furrows, following a semicircular orientation. On its layer, a bronze pin and some stela fragments (Cemmo 17) have been recovered (Keller, 2009; Keller, 2017).

A new frequentation comes with Iron Age and along, a reconstruction of the site with an enhancement of the wall and its widening, so as to include also the Southern part with a rectilinear lining from Cemmo 2 taking place. Re-historiated with animal figures (Ibex) that find confront on the Roccia degli Stambecchi dell'Arcelle Neuve of French Alps of Iron Age 2, (IV-II sec AC). Medium-late Iron age rearrangements of the site included a creation of a channel interrupting the wall, and an area of hoes in front of Cemmo 1 (Keller, 2009; Keller, 2017).

The final stages are attributed to Roman Age, marked by a layer with a reutilization of stelae fragments (Cemmo 15,18,19) some of which incorporated on the wall (Cemmo 15, 20), the incision of a new stelae (Cemmo 12) with a duel scene, and a road passing over the area.

With the advent of Christianity, the site gets disactivated with the “sealing” of stelae in a big ditch outside the wall or on small ditches running along its perimeter and covered with fluvial pebbles. The wall conserved some stelae *in situ* still aligned Cemmo 26, 24, 16 and 25 with direction from North to South and their historiated face turned to the East (Keller, 2010; 2017). In the Middle Ages the church of S. Siro was build nearby, as a continuity of a memory not lost (Keller, 2009; 2018).

The beginning of historiation of rocks in Cemmo starts at Copper Age, IIIA1 phase with the two erratic boulders.

Cemmo 1 (3.10×2.60m) (Fig.20), with its incised face turned to east, until today saves its greatest part of figures (Keller, 2009). The upper part is quite well preserved. The losses are identified on the lowest part which is completely ruined, in the middle where the surface has exerted some deprivation of figures due to detachments, as well as on the right after a mutilation of about 20-25cm (De Marinis, 1994). The current shape looks pentagonal.

In the first phase, deer with semilunar antlers, all facing leftwards, occupy the upper and left part of the panel and one deer separate on the right side keeping the same direction with the rest. On a second time, but it seems on the same period (IIIA1), the iconographic repertoire becomes substantially richer: the deer were remade with thicker contour and with rectilinear antlers this time but still facing towards left apart from one with recurved and another that was transformed to a doe (De Marinis, 1994).

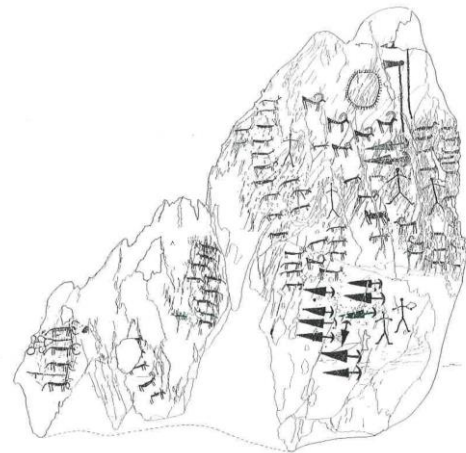


Fig.20 The Cemmo 1 boulder. Source: retrieved from (Genick, 1996)

From the middle of the boulder and on the right, antithetically to the deer, nine bovids (?) are pecked one under the other (De Marinis, 1994). They appear without a tail, even though in some of them the end of backbone is rendered slightly conical pointing on a tiny tuft.

These animals have attracted the interest of researchers for their peculiar morphology not assembling exactly any known animal of the time (Fossati, 1994; De Marinis, 1994). The closest figurative parallel

comes from Cemmo 3, often called “tapir”. Two identical (with the only difference the indication of hoofs) identified as suids (Medici & Gavaldo, 2019, pp. 68-69) come from the vertical rock 30 of Foppe di Nadro.

So far, two proposals have been made: either a stylized *Sus* (De Marinis, 1994, p. 172) or a bovid (Fossati, 1994, p. 132). The latter proposal has been inspired from the two animals of the plow in the mid right of the panel. The long muzzle was interpreted as the struggle of the bovid to plow, almost touching the ground. If this physiocratic “snapshot” is correct, then the rest of the animals of this kind represented with a relative inclination of the frontal part, could indeed be envisioned as in a moment of grazing. On the other hand, if the rendition was physiocratic including the selection of the moment of pastoral scene, it does not explain the lack of tail. In all animals, at least in this phase, the basic physiognomic features (tail, antlers, height, muzzle) have been considered. Even though the apparent stylization (homogeneity, symmetry etc.) could justify some omissions, why deprive an indispensable part of the animal’s integrity and why only to this animal? Unless the additional lack of horns, make them young in age or female subjects. However, we have no other evidence for more definite interpretations but one thing is for sure: the fact that the feet of this animal, despite all the other on the rock (partly except for the deer) are in strong inclination and with the combination of the relative elongation of the body with the presence of a small depression in the middle, is suggesting more of an animal in move rather than static. For all the above, the plowing scene is to be dissociated from all the other found in the valley on monumental compositions.

Between the vertical alignment of bovids (?), on the right side there are 12 Remedellian daggers in three vertical rows. On the first one left, the point is facing right while on the two successive left. One of the daggers is covering a deer figure with semilunar antlers of the previous phase. Other animals include suids, ibex, dogs, and does. On this side, frequently animals are overimposed by daggers.

On the lateral side of the boulder, there are 17 canids (wolves or foxes), with a long characteristic tail all facing one direction apart from one towards the principal historiated face. Over some of them, a triangular elongated blade without the handle (De Marinis, 1994). Both the blade and the dog facing east overlap a semicircle formation. The canids according to De Marinis (De Marinis, 1994) could belong to the IIIA1 or IIIA2 phase. The fact that foxes do not gather in groups suggest that they may be wolves.

Cemmo 2 (2,50 m x 2,60 m), is located around 15m south of Cemmo 1, turned to the north. Exfoliation of the surface has caused deficiency of figures from the right and central part of the panel. Similar human figures saved in their integrity, are schematically represented. Long linear body with spread

hands, horizontally or with short downward inclination, discernible neck and rounded head. Legs are in upright V with feet face outwards. This type is met also on the vertical rock of Plas 2, Roccia del Sole of the same phase. The human figures here are 6 in number, grouped in two: one in the right bottom, one on the mid right and the other two dissociated on the mid and up of the boulder.

Above the group on the right, a rayed sun, two Remedelian daggers and two other weapons: a halberd of laurel-leaf blade and a shaft hole axe. A fragment of probably a similar axe is represented on Cemmo 4 stela. Other 10 Remedellian daggers are grouped on the right lowest part of the surface beside the human figures, in vertical alignment apart from one with the blade pointing downwards. This pattern of dagger alignment is quite present in the area of Trentino Adige (e.g. Lagundo B). Animals (ibex, does, canids) follow in general terms Cemmo 1 in vertical alignment, but in a less strict way; both in terms of rendition and syntax on the surface, interspersing also big space between them sometimes. The overall impression is that of organization in distinct groups on the surface, more or less, close to one another. On the left down corner where the boulder would touch the ground, a plow and a chart are represented. The human figure is missing from the plow. Despite the proximity of the two boulders (Cemmo 1, Cemmo 2) it remains quite interesting the situation on Cemmo 2 where no superimpositions occur and the organization of space was differently systematized.

It would be impossible to make an extensive description of all the stela, boulders and fragments of this phase in this chapter. Hereafter, only for those who present continuity from IIIA0 (except Cemmo), has been made word for in a more meticulous way. In the paragraphs below, a synthetic presentation of the iconographic repertoire of monumental compositions of this phase will be attained, principally based on superimpositions proposed by previous authors, taking into consideration all the relevant sites.

In the phase IIIA1, three fundamental themes are encountered: symbols, weapons, animals, and plowing scenes. They usually occur in three combinations according to the frequency of repetition:

- sun with weapons (male divinity with a solar and warrior character) associated to animals (Cemmo 2, Plas1 -Capitello dei Due Pini) apart from Borno 6,

- U shape pendants and double spiral pendants (symbols of a female divinity, probably of the Mother Goddess) associated to “three rayed sun”,

- the fringed rectangle and the animals (symbolic value and connection to male character).

As the works of Casini, De Marinis and Fossati showed based on overlapping (Caven 3, Cornal, Ossimo 4, Ossimo 10, Cemmo 6-10), it has been possible to distinguish that the latter combination appears with

the combshape and the “T bar” (“cappello di gendarme”) motif, but never with animals and weapons (Casini, 2012; Casini & Fossati, 1994). The fringed rectangle on the other hand, in appears with animals (Ossimo 5 and Ossimo 8) but without weapons, pendants and “necklaces”. In terms of structure, the sun, the fringed mantel and the U shape pendant are represented on the upper part of the compositions.

This first stylistic unity of Copper Age, is almost always superimposed by IIIA2 that is characterized by probably an anthropomorphisation of a divinity represented as a human figure with a rayed sun head, that comes about from the combination of the rayed sun and the human figures of the previous IIIA1 (Casini, De Marinis, & Fossati, 1995). This central figure comes flanked by one up to three other human figures (male and/or female) Cemmo 3, Cemmo 4 and Ossimo 7, Ossimo 9.

Archaeological excavation has allowed the identification of the gender value of IIIA1 symbols and their combinations. Weapons accompany male Copper Age burials e.g. Remedello cemetery, probably as an indication of prestige and emphasis to the emerging warrior identity of this time. According to research for other groups (Pedrotti, 1993), a description of the Copper Age warrior apparel could be inferred, as represented in a symbolic way on boulders and stelae especially in Valtellina.

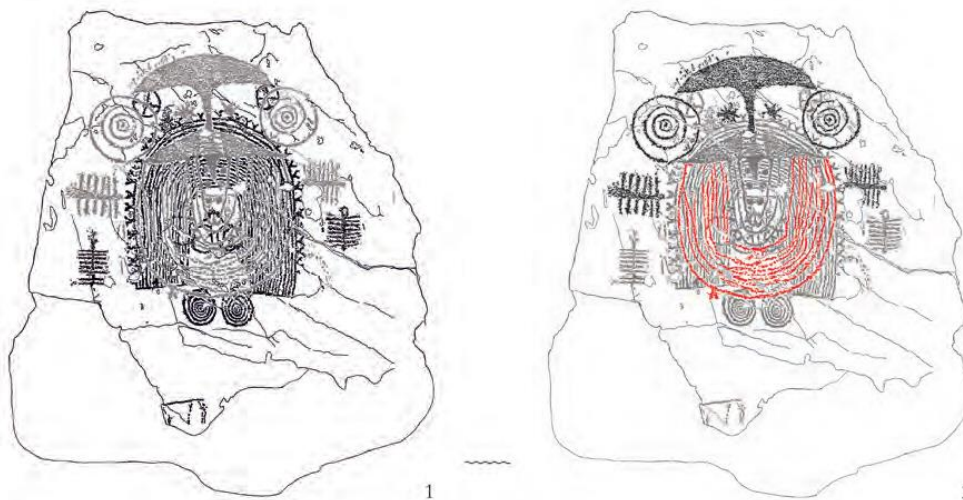
Differently, the Copper Age 2 female figures represented by the U shape motif with double spirals, “three rayed sun” motif and combshape (Casini, 2012). The same author on the volume of “Le pietre degli dei” has provided examples for double spirals of other European areas such as a tomb from Polonia in Kruza Zamokowa (4330-3999 BC) to set a chronological parallel and confirmed the use of those symbol (female tomb 412) (Casini, 1994). Double spirals and a series of shell beads arranged in rows, have remained in the pelvis area of the body and a pendant was also hanging, recalling Ossimo 1 and 2, Borno 1 face A, and Bagnolo 2. But as she noted however, that double spirals could have also been a male motif because even in rare cases exist also in male burials. In Valcamonica only in one, Ossimo 10, comes from the successive IIIA2 period.

Typologies are not always easy to set as a way to reach the real content of symbols which may be still fleeing to us, even more in the cases where the representative finds no material parallels. The exact chronology and gender attribution of the “T bar”, for example, is not yet clear. Of course, such cases are also due to the state of research which remains always in progress. So far has been identified in the stelae of Ossimo 4-phase 2, Ossimo 10, Pat 5, Cemmo 6 and 10. The “T facial” in French terminology could stand for the area of nose, forehead and eyebrows, or also an ornamentation for the head, perhaps a cloak or a veil fixed with a sort of diadem to which the side circles (“earrings”) and perhaps

also the double spiral pendants are applied (Casini, 2008). As a motif itself finds confronts in Lunigiana stelae, Aosta Sion and South France, but the connotations of a diadem or cloak covering the head could also recall the decoration of feminine statue stelae of Trentino region (Arco IV). However, its chronological attribution remains open on whether it belongs to IIIA1 or IIIA2 (Casini, 2008)

Such phenomenon is part of a more general tendency of transformation of stelae and the value of their symbols. In Casini, De Marinis, Fossati, (2014) gender-changes over time are verified, even in the same phase: these transformations pass either from female state to male (Ossimo Anvoia C23, Ossimo M11, Pat 1) or from male to female (Campolungo 3, La Bolp 2 and Pat 5). This phenomenon is not unique in Valcamonica/Valtelina as the case of stelae of Laces in Val Venosta, stelae n. 1 of Sion and other examples from France denote. Transformations can be traced also in other cultural aspects. A tomb of a female adult, in Acquaviva di Besenello during the end of IV millennium BC, was adorned with a typical male funerary goods kit such as arrow points and a laurel leaf shaped axe, all made of flint (Pedrotti, 2001). Maybe these transformations are expressions of eminent people or even representations of a shift of their status inside the society. However, social transformations are not necessarily reflected seemingly in ritual manifestations at the same time.

The U motif probably representing a scarf can sometimes be represented reversed on different or on



the same stelae. Its orientation may indicate a different way of being worn (Casini, 2012). On the basis of

Fig. 21 Ossimo 4. The first two phases of incision of the female pendant. Source: (Casini, De Marinis, & Fossati, 2014)

superimpositions in Ossimo 4, the reversed U shape seems more ancient than that of upright (Casini, 2012) (Fig.21). It appears on Ossimo 1 and 2, Bagnolo 2, Ossimo C20, Ossimo 6 e Ossimo C14, Ossimo M23, Cedegolo 3 and on vertical rocks n. 30 of Foppe di Nadro and Plas 2.

The absence of reverse U from the Valtellina stelae (such as Caven 3, Cornal 1, Cornal 4) and Borno 1-face A, Pat 20 from Valcamonica, makes the above monuments, perhaps, a bit more ancient than those of Valtellina. It is not possible to calculate the chronology, but probably they are inscribed both in IIIA1 (Casini & Fossati, 2012, p. 208). Whether such considerations suggest a dawn in Valcamonica and a subsequent spread in Valtellina, is still open (Casini, 2012).

Apart from the U motif, the “three rayed sun” symbol appears on female stelae and boulders and it is engraved on Borno 1 face A and the vertical rock Plas 2 (Casini, 2012) .

Small short parallel lines interrupted by one vertical, are often called in bibliography “combshape”, the “combshape” motif. Its significance is not clear yet. It is usually found in feminine stelae often associated to the three rayed sun, U shape motif, (double) spirals, and “T bar” (Caven 3, Ossimo 4, Ossimo C20, Cemmo 6, Cevo 1, Castelvetro 1). A confront to two gold discs from Stollhof and eight double spirals has been proposed by (De Marinis, 1994, pp. 199-200). The flat surface of the metallic objects is interrupted by three small depressions in triangular alignment and along the margin of the discs, a decoration of three small parallel lines made out of tiny dots in two sides of the perimeter are crafted. Overall, it could be said that the “comb” motif remains an open question to future research and recoveries for its deciphering.

For the fringed rectangle, conclusions are also difficult to be drawn since no tangible parallels from the material culture are available. In Valcamonica/Valtellina group is encountered only in Borno 1, Ossimo 5 (Passagròp), 6, 8, Pat 11 and and Cemmo 20 (Fig.22). Usually, it is represented on frontal sides, with some examples in the back (Ossimo 8, Pat 2) or laterally (Pat 4).

In two cases (Ossimo 5, Pat 1) is on the upper oblique face. Either in vertical parallel lines (at times also with random

filled rectangles) or chess motif (Borno 1), is completed in some cases (Ossimo 8, 5) with a two- vertical line protuberances in the mid top of it, that remain difficult to decipher. From the study of the iconographic context of the above monuments, results that when this motif is not isolated, is usually

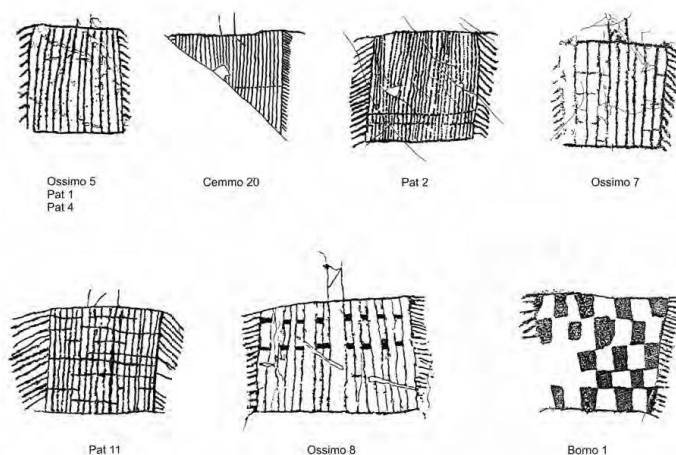


Fig. 22 The fringed mantels of Valcamonica. Source: (Casini, De Marinis, & Fossati, 2014)

followed by three deer figures (one male and two female). As highlighted by De Marinis, it is possible that, during the passage to IIIA2, it assumes masculine character (Casini, 1994). During the final phase of excavations in Cemmo cultural area, the recovery of Cemmo 20 fragment proves that the cloth meets weapons in the same composition. It is the only example so far outside Ossimo cultural area. Borno 1 is the only boulder where all characteristics are documented in Valcamonica while in Valtellina such a case is still missing. This motif when it is found in association is usually connected to animal figures (Chiudinelli, 2011).

Taking into consideration the monuments saved in their integrity, deer is the most preferred animal of all. It is in group with a harem of feminine (Caven 1) or together with other species like dogs, chamois and ibex (Bagnolo 2, Borno 4, Tirano/Lovero). When it appears individually (Plas 1, Caven 2, Vangione 1,2), it is turned towards the sun. For the IIIA1 sun and deer were often strongly associated as indicated on the chapter 4.3 with most famous composition that of Capitello dei due Pini.

The sun motif in the Remedellian phase (Bagnolo Ceresolo 1,2 Borno 6, Cemmo 2, Paspardo La Bolp2, Caven 2, Le crocette 1, Ossimo 7) is always in the upper central part of the historiatised surface. Most of the solar figures are found on monumental compositions of the western side of the valley. Less on the eastern part, on la Bolp and Plas and Cedegolo. The motif could take the form of a rayed sun or without rays (none for IIIA1).

Archeological material is important to provide confirmations on chronology and confronts. However close study of rock art on the other, can provide interesting data that leave no material traces. Animals of IIIA1 and topographic maps earlier could be important “snapshots” of conceptual and social changes. *“What happens in the Neolithic is the constitution of a different*

sense of time, place and social identity, through monument building, and also by means of the herding of domesticates on pathways across the land. Cultural markers are being used to create a new sense of place, [...] while continuing to make reference or lay claim to already established ancestral connections with, and pathways through, the landscape.” (Tilley, 1994, p. 208).



Fig. 23 Plowing scenes from Valcamonica monumental compositions. Borno 1, Ossimo 8, Ossimo 7. Source: (Fedele, 2012)

One of the most important technological innovations has been the plow. I notice that from the passage of Neolithic to Copper Age, the plow has been the indicator of iconography to show that human has passed from the representation of more static themes to active. This change is represented principally by the introduction of the first figurative scenes. To monumental compositions are ascribed only seven out of the 45 plowing scenes in total. So far all come from Valcamonica Cemmo 1, 2, Borno 1, Bagnolo 2, Ossimo 7 and Ossimo 8 (two scenes) (Fossati, 1994) and are of IIIA1 (Fig.23). With the exception of Ossimo 7, in all the other scenes the oxen with long horns turn towards right and in Cemmo 2 the plowing figure is missing, but its absence may be accidental due to the fraction of the boulder on the left. For their chronology, superimpositions are precious markers in the definition of style in the different chronological phases, such as in Ossimo 7, where the plowing scene comes above Remedellian daggers.

In IIIA1, the three types of weapons exist: Remedello A and B type daggers, axes, halberds and one arch in the stelae Tirano/Lovero. Together with animals, they consist the most frequent theme in the Copper Age monumental compositions (Casini, De Marinis, & Fossati, 2014). The Remedellian dagger with a triangular blade with straight base and handle with straight or semicircular pommel is the most representative weapon and it comes in groups, with the blades in the same direction or opposed. In some cases, such as Cemmo 2 for example the point of blade face downwards. Examples of this allocation are already known from Trentino. In Valtellina more often than Valcamonica, they are represented inside their sheath.

The representations of daggers are quite faithful, illustrating also some typical variation of this weapon of shorter and longer blade, identified in its material confronts.

Associated often with axes the Remedellian dagger (Caven 1 e 2, Tirano-Lovero, Cemmo 2) (Casini & Fossati, 2012), or coming individually (Vangione 1, Valgella 3, Borno 1, faccia B) halberds with laurel leaf blade are engraved. Their representations occur on vertical rocks, boulders and stelae (Capitello dei due Pini, Cemmo 20, Cemmo 2, Caven 2, Caven 5, Valgella 3, Vangione 1 e 2, Tirano-Lovero). They are verified more often in the Valcamonica/Valtellina group, less often in Atesina region and absent from other groups and south France (De Marinis, 1994).

Axes of early Copper Age are represented by the shaft hole type (Casini, 1997) are known from on megalithic compositions of IIIA1 (Borno 4, Bagnolo 1 Cemmo 2) and one of knee shaft handle (Bagnolo 2, Caven 1,2) on metal or stone. The symmetry of the blade in Bagnolo 1 and the position of the hole for instance, recall polished stone raw material confronts.

This cycle of historiation of monuments between the IV- early III millennium BC corresponds to a cycle of foundation and frequentation of megalithic sanctuaries, as well as a change in the iconographic repertoire and style due to the diffusion of new concepts and the adoption of a different perception (Anati, 1975). Megalithic monuments of boulders and stelae present some structure in space, alignment, specific orientation (engraved surface to the East), tumuli construction, and the use fire has been proposed as “element of transformation” (Baioni & Keller, 2013) in a rather intentional action of acculturation of space or simply a new organization of territory (Fedele & Fossati, 1996).

Careful selection of raw materials, focusing on color and natural qualities, seems to have been emerged already from the Neolithic with the dissemination of axes in polished volcanic or metamorphic rocks (Gambari, 1996). However, weapons will arrive in rock art repertoire only with the onset of early Copper Age. The same diligence to the lithology has been procured in the acquisition of rock shape and qualities. In Cemmo, Bagnolo (Malegno), Ossimo, and Borno the rock color range varies: from grey-green, brown-violet, gray-violet, gray-brown, violet shades, to green and gray and the surface of monoliths has been intentionally knapped to give shape. In addition, coloration of the engravings during this period seems possible, after colored substances having been verified from excavation (Cemmo, Ossimo). Surface treatment with color, applies in valley as a more general phenomenon even in other areas where megalithic influences do not apply (Luine, Paspardo, Foppe di Nadro r.30), where small blocks of usually red ochre have been found (Anati, 1982; Fossati, 2007, p. 30; Medici & Gavaldo, 2019, p. 70).

Usually Valcamonica/Valtellina group, are presented together as a whole. Megalithic structures in both valleys have a tendency towards medium/ high areas naturally or artificially widened (Baioni & Keller, 2013), spread along the sides of the Oglio river. They stand out as territorial markers, caught by the eye and related to paths (Fedele, 1994, p. 149; Keller, 2004-2005; Baioni & Keller, 2013).

The distribution of rock art sites with monumental compositions in the landscape is not casual. It is presumed here that they follow the criteria of the topographical location of settlements as they were described by (Keller, 2001, p. 273; 2004-2005) for progressive altitude elevation and open terraces, and abandoning some sites in the prealpine zone while founding new other with long perdurance or preference to reoccupation of long frequentation sites already from final Neolithic.

The deliberate selection of previous habitations may denote a common sense of continuity and unity acquired in IIIA1, evident on rock art by a continuity of historiation in consecutive phases.

Aside from the distribution, the group of Valcamonica/Valtellina presents a different character in terms of morphology and artistic expression despite all other groups (Casini & Fossati, 1994; Fossati, 2007; De Marinis, 1994). It is where representative examples of statue stelae are not prevailing and instead erratic boulders of a rounded or lastriform shape are preferred. And if in the future no new monuments come to light, it will remain an exclusive IIIA1 Valcamonica characteristic.

Chapter 5: Description

5.1 From Paleolithic to Neolithic to early Copper Age (III A1 style). Luine (Darfo): rock 6. An example

The Luine hill is in the territory of Darfo-Boario Terme around 10 km north to the Iseo Lake. It is generally divided into three areas: Luine, which gives the name to whole area, Crape, and Simoni which derives its name from the quarry where the greyish/violet-red shade Permian sandstone, Pietra Simona, was extracted (Lombardi, 2006). The rocks are grooved and naturally polished by the Quaternary glacier.

Luine witnesses the long and continuous human occupation of the valley, preserving the most ancient engravings that date to the Late Upper Paleolithic on two rocks: R.6 and R.34. The artistic activity became more systematic during

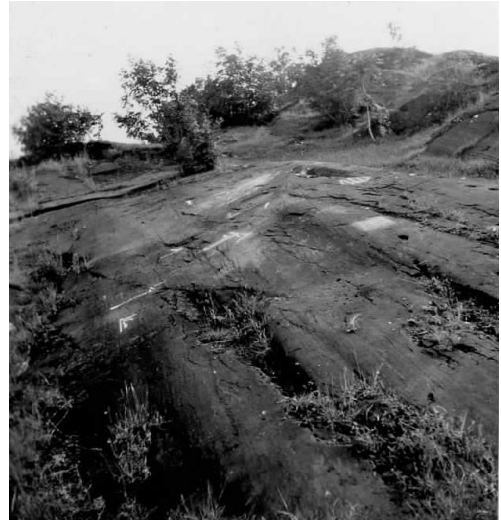


Fig. 23 General aspect of Luine Rock 6 in the first years of its documentation by Anati. (Photo: Archive CCSP)

the Neolithic (IV millennium) and continued through the Bronze Age (II millennium) and the Iron Age. The continuous use of the site could have contributed to the creation and manifestation of a collective memory (Oosterbeek, 2019) within the local populations, inspiring Anati to reclaim Luine in his homonymous publication for the area, “Collina Sacra”, the sacred hill (Anati, 1982). The engraving tradition continued also in the late Roman and medieval times.

The numerous rock outcrops enclosed in the present archaeological park area are affected by strong deterioration. Nevertheless, the wide thematic rock art repertoire can still be esteemed. This engraved heritage includes both figurative and non-figurative subjects: geometric and rectangle figures, lines, circles and cup marks, weapons, human figures, animals, inscriptions, labyrinths and other abstract motifs. The richness in themes and the longevity in terms of site-use, make Luine one of the main rock art clusters of Valcamonica (Sigari & Fossati, *in press*) whose study can bring a valid contribution to the knowledge of Valcamonica rock art.

R. 6: A case study

Among the several rock outcrops of Luine park, R.6 can be considered a key site having hundreds of engravings dated to different chronologies, since the Late Upper Palaeolithic to historical times, so

providing a valid reference to understand the development of the figurative sequence of the Valcamonica rock art.

R.6 is located in the area of Crape at the end of a touristic path that passes close to the engraved Rocks 2, 3, 4, 5, 8, and 14. This area dominates the Oglio River and has the first ever recognized engraved rocks of Luine. It was 1955 when Laeng and Süss discovered the first engravings on rock 6 after an excursion in the area and made a brief reference in *Commentarii di Ateneo in Brescia* (Laeng, 1956). In this communication made reference to various motifs: a horse figure and topographic engravings similar to those of Mont Bego, Val Germanasca and other areas in Valcamonica, inscriptions and other figures (Anati, 1962). The following year Anati visited the site and began a systematic documentation of the rock.

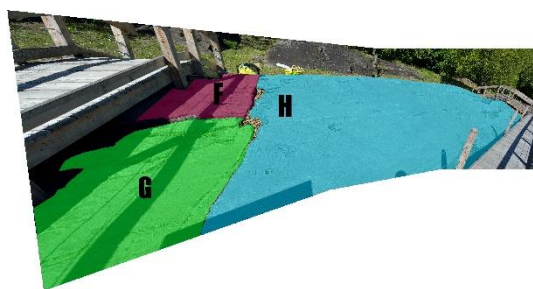


Fig. 24. Sectors E, G, H of R.6 Luine. (Photo and elaboration: Cooperativa Archeologica Le Orme dell'Uomo)

The wide outcrop R. 6 was divided into different sectors (I-Va) (Anati, 1962) but the work remained incomplete (Anati, 1982). A new documentation campaign, held by the Cooperative Society “*Le Orme dell’ Uomo*”, began in 2017 with the aim to finally complete the systematic

documentation of the big rock 6. To manage the work, the rock surface has been divided into eight main sectors, A-H (Fig.24), without excluding the definition of new ones

keeping on with the new research activities focused on the documentation of the most ancient figures as a first step. So, the sectors actually under research are B, E and H and some of the achieved results have already been published. However, they refer to the first artistic stage which is represented by deer, elk, fish, and caprid figures (Sigari 2018). These animals show specific features: they are characterized by a main outline and their silhouette is rendered in a naturalistic style. The study of these engravings from Luine executed between c. 15-8,000 BC, beyond their antiquity, discloses their contextual as well as active role in the being of sociocultural dynamics and movements of people in landscape. What Anati called “Proto Camunian” in his periodization, in fact is no other than part of the wider context of artistic phenomenon in the western and northern Europe and at the same time an active unit inaugurating a long Valcamonica rock art tradition. For this, the term “Proto Camunian” should be reviewed (Sigari & Fossati, in press), as it rests rather inadequate to cover the participation and auxiliary role of this chronological and thematic unit.

The end of Pleistocene and the beginning of the Holocene marks a new epoch for the environment, and a moment of adaptation in a base of a new reality (Anati, 1982). It is in this phase that the most ancient artistic manifestations are introduced: animals and fish.

SECTOR D-E

While animals occupy the space of B, E and H sectors, fish figures are concentrated in D now under study for this thesis, both on the eastern side of rock 6. With reference to the examined periods, the rock presents also a representative amount of Neolithic geometric and reticulate motifs, spreading to the sectors D and E.

The biggest concentration of fish figures is identified to the SouthEast part of the rock within the inferior sector D together with geometric motifs, and present homogeneity in style and technique. The fish motifs have already been studied and are attributed to the Palaeolithic period (Sigari & Fossati, in press). In the same area, they are associated to geometric figures including grid forms, quadrangulars, circles and some shapes rather incomplete, in geometric formation that predispose rectangles, all of them in contour. Especially for the grid forms it is noticed that it is the only geometric motif to overlap fish. Similar examples of grids overimposing fish do not exist so far, although grids do exist in other areas in Valcamonica e.g. Paspardo and Alpine contexts e.g. Mt.Bego interpreted as topographic maps and attributed to IIIA0 phase (Arcà, 2013). The presence of grids can denote the harvested, cultivated, sown or ploughed fields one may view from the rock (Arcà, 2007).

Some of those figures, present peculiarities. In one of them, a rectangle was pecked with two internal vertical lines and a third arriving at the half. It is obscure whether the rectangle was about to be transformed to a grid form or the ultimate result was in fact the intended one. In another case, the biggest of the grids, even though its upper long side is well marked on the rock in a straight line, the inferior one follows an anomalous progress. At around the mid half of the side, it follows a small concave lining inwards shortening the grid form perpendicularly on the right half.

On sector D from the digital tracing circular forms have been identified, difficult to see with bare eye but visible when enhanced with oblique light. The execution of contour had been done with sparse peckings, rendering a defined but interrupted outline. The presence of a dot in the middle, due to the technique used for the overall formation of the shape, cannot allow for an attribution of the figure to the category of circles with a dot for sure, but it is possible. Similar circles have been identified on Sector H.

SECTOR H

Sector H concentrated the greatest part of figures on the rock. The new tracing has permitted the identification of figures that change a bit the initial reading by Anati. During fieldwork 2021, some rectangle motifs have been identified, of varying typology and dimensions. In Valcamonica periodization, they are interpreted as topographic maps (Arcà, 2007) and date to the passage Neolithic-Copper 1. On rock 6 they are executed in quite regular contour that due to the overall

deterioration of the rock, are consumed and hard to identify without oblique light. Sometimes, they are filled with sparse pecking, or they are entirely pecked.



Fig. 25 Part of sector D. Luine R.6. (Source: Archive of CCSP)

The interpretation of rectangles on those sectors is quite puzzling. Only grid forms have been chosen for the superimposition of fish. They masterfully overlap the palaeolithic figures, leaving some of their body intact as if they were fishtraps representing the moment of capturing (Fig.25). Studying the rock, it is interesting to note that all fish are looking leftwards, following the water flow of the river Oglio that runs towards Iseo Lake, while all animals are turned towards the mountains rightwards, on the opposite direction. Beside the landscape perspective however, it is hard to conclude to an interpretation, and we know that fishing, just as hunting, was practiced in a greater or lesser extent in the valley in all prehistoric times.

Fishing activities are suggested by the remains from the site of BC3 building of Breno castle (scales, vertebrae and other bones of even large fish) which was close to the river, indicating that water flows were one of the main transit routes as well as subsistence resources even in later times (Fedele, 1988).

Location was probably considered important also for rock art too. Sector D position close to the water seems to be setting the panel thematic narrative. As publications for various chronological periods demonstrate in Valcamonica it is diachronically present a strong link between rock art and aquatic theme (Fossati, 1994; 2007). But also, from other rock art sites in Europe it has been possible to support a relevance of landscape features to the distribution of rock art, such as for example in Scandinavia with

the figurative features being made at a time when the sea level was higher, in a moment when they were located even closer to the shores (Sognnes, 2002).

In that sense, if we accept grid forms as fishtraps, and therefore synchronous to the Palaeolithic dating of the fish, rock 6 could represent the narrative of the two main activities of the Palaeolithic man: the hunting of animals and the catching of fish. However, no fish traps or other relevant structures have been discovered so far in the valley to verify such an assumption. What is more, ethnographic studies and archaeological discoveries evidence similar, but different structures for fish hunting, such as the Mesolithic trap from Clowanstown, Co Meath in Ireland, discovered in 2004¹⁴ were in use. Some draft fish weirs constructed with river sticks fixed perpendicularly in the bottom of rivers that could be represented as grid forms are witnessed in Native American peoples (Moss, 2012). But these were long structures as enclosures resulting to funnel shape, in order to control the path of the fish in the water and to trap them in a funnel and not destined to catch fish directly themselves. They usually were doomed to have a short lifespan due to floods.

On the other side, grid forms as the systematic studies of Arcà have shown, are part of the mature Neolithic graphic repertoire (Arcà, 2007; 2013) with confronts also to other Alpine areas (Arcà, 2004; Arcà, 2013). Aside from the examples superimposing fish, sector D grid forms exist also in relation to other geometric motifs composing altogether undoubtedly the most dominant thematic unit in the delimited rocky area on the SudEst of the outcrop.

¹⁴ <https://www.museum.ie/en-IE/Collections-Research/Collection/Resilience/Artefact/Test-6/f979cde3-83d8-49a1-a7bb-6f1409aa8ff4>

In this sector geometric shapes are also represented in square, circular and quadrangular forms executed in contour. One of them, a grid, presents a thick deep hollow rectangle area running perpendicularly the motif in the middle (Fig.26). The concave part of the rock surface in this area I



Fig. 26 Grids. Luine R.6, set. D. (Photo: C.A)

consider is the result of superimposition of two grid motifs, with one using part of the other. The superimposition of two geometric motifs, with the one appearing as the extension of the other is not surprising in the Neolithic Valcamonica rock art (e.g. Vit. 64, Vit.13). For these reasons but principally due to the lack of any fish trap archeological findings of this kind so far in the valley, the above grid forms will be

considered here as topographic maps, not excluding though the possibility of being traps or other interpretation in the future on the light of new discoveries advocating towards this direction.

For concluding with the topographic elements, sector H, these are not the only rectangular figures; there are also other either in contour or entirely pecked but the tracing is still ongoing. The techniques vary a bit and they are not very much alike to that of sector D. But all of them are obviously afflicted in great part from the deterioration of the rock. So, the chronology of the Neolithic figures comprised of rectangles, circles, grids and other geometric figures is estimated to mature Neolithic/Early Copper Age (IIIA0). In terms of style they belong to IIB according to the chronological classification of Arcà for maps and are assumed to be representations of topographic elements, due to the fact that no clues have we to classify them as fish traps (for the grids) and for the possibility the contextual landscape elements offer in reference to the position of the rock.

On sector H on the other, a Remedellian dagger with long triangular blade has been recorded on the upper part of the sector (Fig.27). Comparing to weapons from the homonymous cemetery, its date is estimated to 2800-2400 BC (De Marinis, 2013) and in terms of stylistic subdivision it belongs to IIIA1 phase, in continuity to the geometric figures of IIIA0. The pommel is straight but with a small depression in the middle. That the blob of dots pecked in exact proximity to it following this deformation, seems to provide an extension or some kind



Fig.27 Remedello dagger. Luine R.6 (Photo: Cooperativa Archeologica Le Orme dell'Uomo)

of completion to the weapon of unspecific character. Not relevant to the chronological to the horizon of this study, but the outnumbering of weapons or this rock, is a fortunate fact for the stabilization of rupestrian sequences: Ciempozuellos dagger dated to Copper 3 (IIIA2) 2400-2200 BC on the same sector in association to rectangles, provides me immediately a verification of linear continuity on the engraving phases.

Special reference has to be done to the supposed bell around the neck of the Palaeolithic deer in sector B. The recent review considered it as a schematic anthropomorph of the Copper Age excluding then any interpretation as a domestication marker (Sigari, 2018).

So, according to the elements put in evidence in this thesis, the linear continuity of engraving activities of rock 6 starting from Paleolithic, and continuing to Neolithic, early Copper Age has been accentuated, but also at the same time the existence of an important rock art area below middle valley especially for the period of IIIA0 and how landscape may have been involved in the engraving process and interpretation.

5.2. Paspardo

The area of Paspardo occupies a territory between Ceto and Cimbergo on the right orographic side of the valley and belongs to the Rock art Natural reserve of Ceto, Cimbergo and Paspardo.

The systematic study of this area of Paspardo has definitely revealed the presence of a territory with a well recorded presence of the most ancient phases of rock art in middle valley. After the Upper Palaeolithic figures of Luine in the low valley, the figurative interest has been relocated during Neolithic on a wider area, including higher altitudes, deeper in the valley, c. 800-1000m a.s.l. Just as Luine, a long history of rock art production from Neolithic to historical periods-Middle Age- characterizes this territory. Despite the general situation in Valcamonica where Iron Age rock art is the most represented (approximately 80%), in Paspardo especially in the area of Vite the biggest concentration of engravings dates to Neolithic (75.31% according to numbers from 1994) and then less to Iron Age (Arcà, 1994).

The construction of the new road of Deria (links Paspardo-Capo di Ponte) in 1990, brought about the need for scientific documentation of some sites with rock engravings in danger of conservation. The engraving area due to its morphological positioning on slope (extends from the mountain to valley) is diffused around the ancient path known as Bial do le Scal, or "Scale di Paspardo" (Paspardo's staircases) that connects Paspardo to Capo di Ponte.

The documentation activity undertaken by the Cooperative Society "Le Orme dell'Uomo" between 1990 and 2006 highlighted various sites of interest: "La 'It", " 'Al de Plaha", "La Bosca", "Bröscaroeula del diavol", "Bial do le Scale", "Dos Baiti", "Deria", "Castagneto", "Val de Fuos" (De Marinis & Fossati, 2012).

Neolithic rock art is characterized by topographic elements/subjects and other iconographic manifestations including maculae, various geometric motifs, spirals, and reversed U shape. The Vite – 'al de Plaha, Bial do le Scale, Castagneto, In Valle, Dos Costapeta, Gras dele Pegore sites have provided rocks with all those various graphic units. Such concentration has no parallels elsewhere in the valley, except Pia D'Ort on the opposite orographic.

A wide surface and one figure: Rock 4 of In Valle

In Valle site stands out for the big size of its Rock No. 4. Though the rock is very rich in themes belonging to different chronologies, it has only one graphic unit dated to the Neolithic: on a vertical and prominent part of the inclined part of the rock there is a spiral underimposed to a



Fig.28 Superimposition of praying figure and spiral, R.4 In Valle (Photo source: Fossati, 2007 (left); contact tracing C.A (right)).



praying figure (Fossati, 2007) (Fig.28). Spirals are generally a motif attributed to Neolithic and an identical superimposition comes from Valtellina Grosio, Rupe Magna, sector AA. (Tognoni, 1995). A praying figure with hands raised in U and feet in upright V (in U for In Valle) superimposes a spiral with its left hand (right hand for In Valle) (Fig.29).



Fig.29 Superimposition of praying figure and spiral Rupe Magna set.AA (Source: (Tognoni, 1995)).

Spirals as symbol on Valcamonica rock art probably belongs to Neolithic (Fossati, 2015) and they are mostly known from the megalithic art.

However here is well represented on open air rocks and could be related to either the earth as snake coil spirals or as a schematic movement of water flow. The water flow on the rock surface beside it (Fig.30), we do not know there was also in the past but today make it stand out as one comes by and in terms of interpretation may be associated to it.

In both cases, Paspardo- Grosio, but more in Paspardo, the fine pecking of the spiral contrasts the coarser contour of the orant that lies above. With similar fine pecking is also present in the topographic figures of r.9 In Valle.

A small rock with a rich concentration: the case study of Rock No.9

R. 9 is a small rocky outcrop located in the area of In Valle, few meters below Rock No. 4, in a prominent position, along the path from the bottom of the valley up to Paspardo (Fig.31). It is in good view over the valley from one part and immersed in a forestall environment on the other. The rock is located on the right side of a narrow path and its orientation follows the river flow (N/NE-S/SW). The surface is naturally smoothed, with some big cracks that cross it perpendicularly and, in some parts, some remnants of the old white impasto used for recording are still visible. The relatively small size of the exposed rock surface hosts numerous figures and a dense palimpsest with several superimpositions,



Fig.31 Rock 9 In Valle, Paspardo (foto: Cooperativa Archeologica Le Orme dell'Uomo)

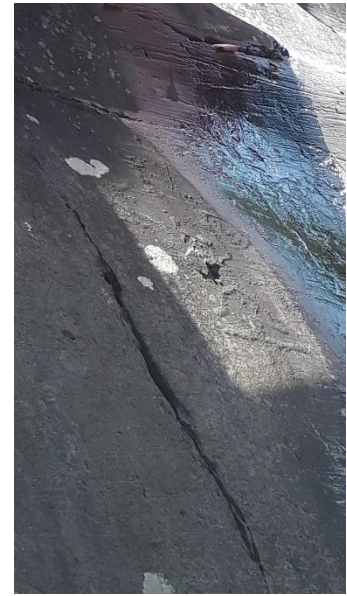


Fig.30 Water flow on the rock surface close to the spiral motif. Rock 4 In Valle, Paspardo (foto: C.A)

phases, except Copper

Age. The main

figurative categories

can be grouped into:

geometric, weaponry, anthropomorphic.

Neolithic is well represented by geometric figures of a mature phase executed in contour: simple rectangles, double rectangles, oval shapes, grids and a group of dots. The other figures of later ages are mostly Bronze and Iron Age graphic units. They respectively are: shovels, orants, armed warriors, weapons, incisions and half crosses. For the needs of this thesis, the rock has been recorded using contact tracing and to recover the problems of invisibility of some figures due to the pecking technique consumption of the rock surface, oblique lightning has been used, both artificial by using a LED lamp and natural by reflecting the sunlight. The recording work concentrated on the areas where significant Neolithic



Fig.32 Rock 9 of In Valle Paspardo. Small aspect of the engraved surface from 1989. (Photo: Cooperativa Archeologica Le Orme dell'Uomo)

themes are either isolated or in relation of over/underimposition or in association to other subjects. In this way considerable key-information about the Neolithic presence could be collected: simple rectangles (4), double-based rectangles (3), grids (3), oval (3), rectangle with dot in the middle (1),

group of dots (1), incomplete geometric figures (1). Photos taken

by Società Cooperativa “Le Orme dell’Uomo” from the first year of documentation of the area, 1989, have been used as well to support the reconstruction of a better image of the rock, taking into consideration also some areas of the surface not submitted to tracing yet. Based on the visibility of the images, 2-3 more simple rectangles, other 2-3 double based rectangles and one gridform in superimposition with a double base rectangle has been possible to be identified (fig.32).

Apart from Neolithic a phenomenon typical of Paspardo is distinguished, characterized by a mixed presence of male and female elements. In association to the rectangles are figures of Bronze age (shovels and orants) and Iron age (spears, other weapons and warriors). This tendency is recorded also in other rocks of Paspardo: Dos Sulif 1 and Dos Costapeta 1 (Fossati, 2007). Interestingly just as rock no. 4 it begins with shovels on one extremity, and finishes on the opposite side with shovels again, like closing a narrative cycle or the characterization of the enclosed space.

Another very typical of rock 9 is the presence of Bronze age spears, engraved vertically in groups leaving deep scars on the rock, visible even by distance. On the right side of the rock, the bigger ones may extend almost from mid-up part to bottom covering in great part the available rocky area. Some of them are executed with great precision, reaching even the real proportions of the points. Similarities can be found with the figures of Dos Costapeta, though the inclination of the rock surface differs, being here horizontally placed (De Marinis, 1994). It could be imagined that real spears would have been placed during the bronze age on the rock, similarly the present scratches occupy the surface. This would inspire prehistoric people to imprint this image on the rock. In fact, warrior brandishing a spear is represented on the rock over a shovel.

In order to better describe the rock, the engraved surface on the base of Neolithic figures, allocation on the rock and natural features of the rock, 7 groups have been divided:

Left (N/NE)

Group 1: Two rectangles, one vertical and another horizontal, and an overlapping figure of a warrior.

Group 2: Oval figure, grid and an overlapping axe.

Centre

Group 3: Rectangle with a dot, and unknown figure

Group 4: Grid and traces of incomplete figures

Right (S, SW)

Group 5: Simple rectangle and overlapped female orant and a circle with dot

Group 6: group of dots

Group 7: Group of simple and double rectangles in horizontal position, overlapping incomplete figures, and grids.

To the north/northeast side, group 1 and 2 is represented by Neolithic and Iron age. The central part with group 3 and 4 Neolithic, while to the south/southeast Neolithic and Bronze age.

Geometric figures, simple and double rectangles are the typical motif of Paspardo. Simple rectangles are found either isolated or in immediate association to double rectangle (Vit 13). The comparison with the record on Vit. 13 is interesting, especially for the upper half of the rock 9 due to the presence of Iron Age warriors overlapping rectangle figures. Finally, both rocks present clustering of rectangle figures represented very close, almost attaching to one another (Arcà, 2007, p. 46; fig16).

Grids, albeit the incomplete state of tracing, do not present overlappings, but in each group they retain some association to other Neolithic figures: In group 2 with circle, in group 4 proximity and same execution to rectangle with dot (group 3) and in group 7 to simple and double rectangles.

Rock Vit.8 on the other hand, could be compared to group 2 for the presence of the oval figure and the big simple rectangle with dot in the upper central area of the rock (group 3). Similar figures are also known from Valtellina, Dosso Giroldo (Arcà, 1994; Fossati, 1995, p. 16; fig.4). The group of dots has been

considered a unit on its own due to its extension and the disposition on the rock. It seems to have been placed in accordance to the natural limits of the rock, following its progress.

On the same line regarding the placement on the rock, are the two rectangles of group 1, both having their right sides in alignment with the natural crack that separates the rock in two segments. Some continuity on the long sides of the second rectangle of the contour towards the crack could be interpreted as an intention for a modification to double rectangle with pecking but which remained incomplete or a technical use of the natural crack as the missing part for the completion of the transformation.

A “smart exploitation” of the rock is a characteristic of rock 9 that will continue until the end of the engraving sequences. As examined for the spears, incisions standing for the handles, were either pecked or engraved in their extremities for the representation of the metallic spears. The big natural crack that divides the rock, when it would rain or snow would melt water would easily flow downwards the inclined surface in that part. Turning the rock with our imagination so as the right part of the crack facing the other side of the valley, the crack would be the Oglio river, and the topographic maps would represent the cultivated fields and houses as seen from the above close to the shores of the river; a view that one can admire even today from that position.

All the topographic motifs occupy the areas on the natural limits of the rock, cracks and outline. From left to right, two rectangles have been engraved on the brim of the big crack in the middle, and in one of which is using it as a substitute of its right side. Moving more on the right a group of dots occupy the upper right corner and below follow a series of double base rectangles. The concept of rectangles (topographic maps) engraved on the extremes of the rocks seem to follow a rather intentional pattern if one examines also other examples from various sites in the valley e.g. rocks 4, 21, 23 of Foppe di Nadro (Medici & Gavaldo, 2019)

The peculiar line horizontal line on the left side of the simple rectangle in the center starting from its contour is quite often represented on the rectangle figures of Paspardo (Vit.66, Vit.36) and its significance remains unknown.

Apart from the variability of figures and different chronologies put together, on this rock one can experience a great variety of pecking techniques and depth: very fine pecking, small, medium, coarse, incisions of various depth, and incisions combined with pecking. Maps were executed with fine-very fine pecking and all belong to the IIB phase (Arcà, 2007). Maculae are not detected so far.

Despite the overall good preservation state of the rock, many of them were difficult to recognize even with the use of auxiliary means due to the consumption of this fine pecking as it usually happens. Partly also due to the anteriority of the figures and the numerous overlappings that as a consequence, are unfortunately eliminating the traces of pecking of the older figures to the junction areas. For the rectangles, it has been noted during the recording process that despite the uniform character of fine pecking, the outline was intermitted or added some coarser pecks. Differences in execution are noticed not only in the figures between them, but still inside the topographic maps themselves. Figures engraved in the middle part of the rock, present a thicker contour given to the bigger size of pecking. The contour even though can be described as well-defined in this area, is a little “straggly” with some pecks detaching from the contour lining. On the contrary, fine pecking characterizes the rest of the Neolithic figures disposed in a capillary way in the contours.

Chapter 6: Discussion

6.1 Systematization of data

This chapter is dedicated to the presentation of tables systematized here in type of catalogue. The tracing of the figures has been executed exclusively digitally and where the photos were not enough to consent a faithful interpretation or digitalization due lack of time, old archive photos in black and white have been used. Figures do not reflect real size dimensions but adapted to the tables, for the shake of the catalogue.

The construction of the tables had the aim to provide a syncretic summary of the basic information of each element in a schematic way. This consent a better organization of the work load in a more effective way, and individualize some parameters on the base of which this work has been envisioned, such as position of figures on the rock. Therefore, 11 cells were set:

- Image: An image shortcut with the tracing of each figure has been provided after a digital processing.
- Name of figure: Name of figure in the catalogue. The catalogue as explained has been set according to the thematic units that are of immediate interest of this work and of the rock in its integrity, also because the tracing is incomplete.
- Category: The general category the figure in question belongs. G stands for geometric figures.
- Description: A brief description for the figure, including pecking.
- State of conservation: The value assesses the state of conservation of the figure on the base of its preservation and visibility of the rock surface. The grades of preservation have been degraded into excellent, good, mediocre, poor. In the cases of intermediate state two of them are input.
- Orientation on the rock: How the figure is oriented on the rock according to the overall shape of it, and the shape of the figure.
- Overlapping: The category and number of figure, that is found in immediate relation, above or under the figure in question, is indicated.
- Association: Association is the identification of figures that are not in immediate relation but in close proximity and that /or could consist a unit (e.g. figures that could constitute a hunting scene) or other affinities.

- Type of rock art: Technical terms that describe the technique the rock art figure has been executed are the input of this label. For the current tables, is *pecking*. On the rock is incisions are encountered too.
- Style and chronology: Reference on the style according to the chronostylistic table of Valcamonica rock art, and chronology. For the figures registered from PIV.9 rock, it is the transition Neolithic/Early Copper Age (IIIA0) and IIB is a more specific division proposed in (Arcà, 2007) that refers exclusively to the topographic maps and corresponds to mature Neolithic.
- Notes: Any important information to be mentioned. Particularly for this thesis, this sector has also been reserved to indicate the state of completion of the tracing for the reasons mentioned in the beginning.

Legend:

St.Cons. = State of conservation

Orient. On the rock = orientation on the rock

Overlap. = overlappings

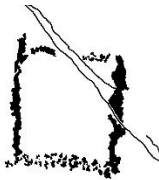
Type of R.A = type of rock art

G = Geometric figures

W = Weapons

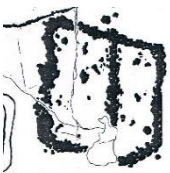
6.1. LUINE R.6

SIMPLE RECTANGLES

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	Set.D_011	G	In thick continuous contour. Represented on 3 sides. Lack of symmetry and right angle rounded. Better represented the lateral sides.	good	horizontal	No	Rectangle 12 and line 11	pecking	IIB Neolithic/Early Copper Age (IIIA0)	
	Set.D_016	G	rectangle in contour with 3 sides	good	horizontal	No	Rectangle 13 and line 14	pecking	IIB Neolithic/Early Copper Age (IIIA0)	
	Set.D_012	G	In contour. It is comprised of two lines whose allocation recalls a rectangle with thick pecking while the other two	good	inclined	No	Rectangle 11 and line 12	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

			horizontal ones, are executed with more sparse pecking. Left vertical side protruding upwards.							
	Set.D_014	G	In contour. Contour on the flanked sides is thicker while on the two horizontal executed in more sparse pecking. Two vertical lines running transversally one in a half.	good	horizontal	No	Circle 014	pecking	IIB Neolithic/Early Copper Age (IIIA0)	(Intention to transform in grid?)
	Set.D_017	G	Simple rectangle in contour. Only part of two low sides have remained due to rock damage that ruined the rest. Contour, deep linear on the right vertical side and with	good	horizontal	No	Simple rectangle 016	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

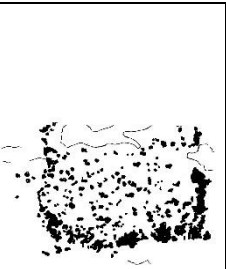
			scarse pecks on the horizontal one.							
	Set.D_018	G	Simple rectangle in contour. Contour with sparse pecks, but better defined the two lateral sides. In the upper side, contour seems to cease in the middle.	good	horizontal	No	Simple rectangle 015	pecking	IIB Neolithic/Early Copper Age (IIIA0)	
	Set.D_023	G	Simple rectangle in contour incomplete with three sides	good	horizontal	No	Grid 17,18,22 and cup mark 19	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

	Set.H_001	G	Figure in contour. The contour is continuous, thick, and irregular in one of its sides. The general aspect of the figure is asymmetric with a line crossing in the middle. Sparse pecks inside the rectangle.	good	horizontal	No	Line 012	pecking	IIB Neolithic/Early Copper Age (IIIA0)	
	Set.H_008	G	Figure in contour. The contour is irregular: continuous linear and thick sometimes while in some parts varies from scarce to very scarce losing is regular lining. Quite regular formation of the geometric shape. Inclined position. Some	mediocre	horizontal	No	Rectangle 06, 09 and ciempozuellos dagger 08	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

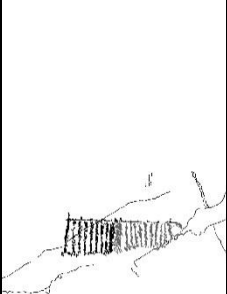
			pecks inside.							
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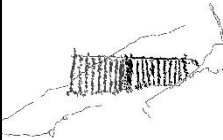
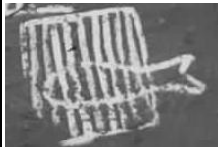
RECTANGLES IN PROCESS OF TRACING

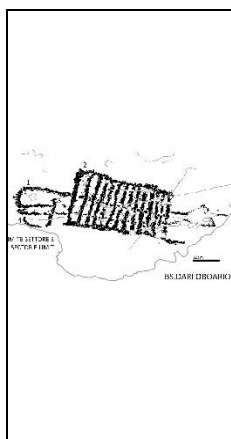
IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	Set.H_010	G	Rectangle executed in a mixt way. Half in contour with scarce peck filling, half filled. In the idle, small gap.	Mediocre -poor	vertical	No	Rectangles 006,007 and Ciempozuel os dagger 008	pecking	IIB Neolithic/Early Copper Age (IIIA0)	The rectangle demonstr ates a crook shaping. State of tracing in the area: incomple e. Photo and tracing in progress: C.A

	Set.H_007	G	Rectangle filled with scarce pecking. Distinctive contour with thicker pecking.	Mediocre	horizontal	No	Simple rectangle 007, Ciempozuelos dagger 008 and rectangle 009	pecking	IIB Neolithic/Early Copper Age (IIIA0)	The rectangle continues upwards. State of tracing in the area: incomplete.
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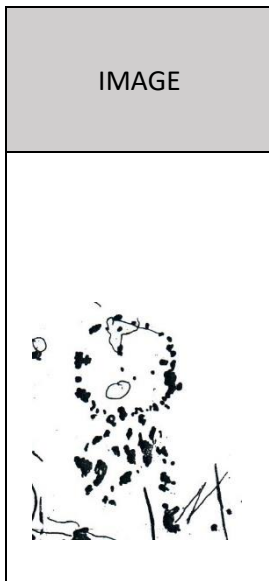
GRIDS

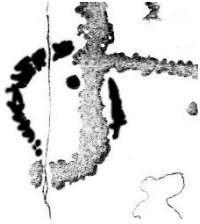
IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	Set.D_019	G	Gridform in contour, with 9 vertical lines. Upper horizontal line, very linear with more fine and regular pecking while the bottom one is irregular sinuous with bigger pecks. Left vertical side	good	horizontal	under gridform 18	Grid 18, 22, cupmark 19, incomplete rectangle 21, lines 020	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

			protruding upwards.							
	Set.D_020	G	Gridform in contour, with 11-12 vertical lines. Upper horizontal line, very linear with more fine and regular pecking while the bottom one is irregular sinuous with bigger pecks. Left side overlaps right side of fig.17	good	horizontal	over gridform 17. Right bottom corner of the 4 last vertical lines is interrupted by a crack.	Grid 17, 22, cupmark 19, incomplete rectangle 21, lines 020	pecking	IIB Neolithic/Early Copper Age (IIIA0)	Shares bottom line with upper line of fig. 22
	Set.D_022	G	Gridform with 10 vertical lines, incomplete. Irregular pecking.	good	horizontal		Grid 17, cupmark 19, incomplete rectangle 21, lines 020	pecking	IIB Neolithic/Early Copper Age (IIIA0)	Shares upper side with the bottom side of rectangle 21. Tracing not complete. Photo: archive of CCSP

	Set.D_027	G	Gridform comprised of 14 vertical lines. Over fish. The backspine of the fish, or a horizontal line runs horizontally the middle of the rectangle.	good	horizontal	Over fish n.25		pecking	IIB Neolithic/Early Copper Age (IIIA0)	Tracing: Societa Coop. Orme dell' Uomo
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CIRCLES

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOL OGY	NOTES
	Set.H_005	G	Two circles in contour attaching one another. The contour is in scarce pecking, especially of the second circle that remains incomplete	good	-		Close to the circle 005	pecking	IIB Neolithic/ Early Copper Age (IIIA0)	

			with also some pecks inside.							
	Set.H_006	G	circle in contour with quite sparse contour. The figure remains incomplete.	good	-	Some grafitti incisions over pecks of the contour	Close to the double circle motif that assimillennimate also in contour pecking.	pecking	IIB Neolithic/ Early Copper Age (IIIA0)	
	Set.H_003	G	Circle in contour.	good	-	Under warrior of Iron Age		pecking	IIB Neolithic/ Early Copper Age (IIIA0)	
	Set.D_015	G	Two circles in contour attaching one another. The contour is in scarce pecking, especially of the second circle that remains incomplete with also some pecks inside.	mediocre	-		Close to simple rectangle 013	pecking	IIB Neolithic/ Early Copper Age (IIIA0)	

LINES

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	Set.D_013	G	Line. Closer to the rectangle of SET D_010	good	-		Close to rectangle 013 and circle 014	pecking	IIB Neolithic/Early Copper Age (IIIA0) (?)	
	Set.D_026	G	Geometric figure not identified. It is comprised of two lines whose allocation recalls a rectangle	good	-		Close to grid 24 and fish 25	pecking	IIB Neolithic/Early Copper Age (IIIA0) (?)	
	Set.H_002	G	Simple line	good	-		Close to rectangle 001	pecking	IIB Neolithic/Early Copper Age (IIIA0) (?)	

WEAPONS

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLA P.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOG Y	NOTES
	Set.H_004	W	Remedello dagger. Long metallic blade with rectilinear base and flat/asymmetric pommel.	good	Horizontal/ inclined	No	004a	pecking	IIIA1	
	Set.H_004a	W	Blob of pecks in immediate connection to dagger 004. Probably part of its handle.	good	Horizontal/ inclined	No	004	pecking	IIIA1 (?)	

6.2 PASPARDO R.9 IN VALLE (*Tracing in progress*)

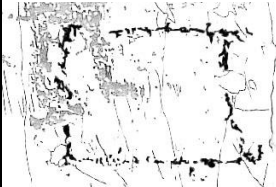


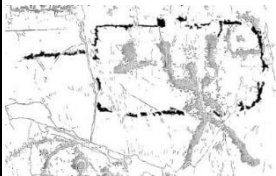
Due to lack of available time and the weather conditions that have impeded a complete recording of the rock, the tracing has remained incomplete. On the other, the weather conditions in respect to the rock surface state where the figures are engraved have not allowed the capturing of sufficient photos. The very fine pecking of some of them and the great number of superimpositions in some part of the rock made it hard to identify anyway. This is why almost all the tracing process has been executed almost exclusively with the use of additional means. Unfortunately, the above situation has affected the process of cataloging in great part. For this reason, for the post-processing of the tracing, I have put forward some necessary modifications that would facilitate the processing of data and avoid confusion in terms of possible.

First of all, only the figures relevant to the Neolithic/Copper Age have been catalogued as well as the figures in immediate relation to them with overlappings. The name of figures in the catalogue, despite those of Luine do not have a numeration of sector because they all elements of the rock consist the one and the same sector. Second, it has been considered important to indicate to the eventual readers the current state of tracing recording of the figures in the moment the cataloguing was taking place and therefore an additional column in the tables has been created named “Notes”, where in case the state of tracing would be mentioned. Third, due to the very dense historiation of the rock, a big number of figures due to overlapping on the same area may occur. In catalogue figures that at the moment do not seem to be identifiable due to the incomplete state of tracing, have been considered altogether. Of course, no dating for them has been attained. Finally, old photos of the rock from Cooperative Society “Le Orme dell’Uomo” have been consulted to achieve a more comprehensive frame of the rock engravings where tracing has not been applied yet.

TABLES

SIMPLE RECTANGLES

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_001	G	Simple rectangle, in contour. Density of pecking irregularly allocated. Upper and right part more meticulous shaping and denser pecking.	Good-mediocre	vertical	No	Warrior 002 and simple rectangle 003	pecking	IIB Neolithic/Early Copper Age (IIIA0)	Long right side very close and parallel to the cracking of the rock.
	PIV.9_003	G	Simple rectangle, in contour. Small extensions of the two horizontal sides. Quite regular contour with homogenous pecking. Left	Good-mediocre	Horizontal	Under Iron Age warrior	001	pecking	IIB Neolithic/Early Copper Age (IIIA0)	Right side close and parallel to the cracking of the rock.

			side interrupted by warrior 002							
	PIV.9_010	G	Simple rectangle in contour. Shape of contour: regular. On the left lateral side, an extension of a horizontal line is noted.	Good-mediocre	horizontal	Under praying figure 012, group of small incisions 011 and circle with dot 013.		pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete
	PIV.9_018	G	Simple rectangle in contour. Very faded, very fine pecking, with some scarce bigger dots. Contour aspect is quite regular in all sides apart from the bottom one.	Mediocre-poor	horizontal	Under double rectangle 015 and other figures 016	015	pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete

DOUBLE RECTANGLES

IMAGE	NAME OF FIGURE	CATEGORY	DESCRIPTION	ST. CONS	ORIENT.ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_019	G	Regular contour with two semi-rectangle suffixes on the top of it and one semi-rounded on the upper baseline. Upper baseline extends further on the left, outside the rectangle. Fine pecking with some bigger pecks.	Good-mediocre	horizontal	Under scratch line 019, line 021 and incision 023	Double rectangle 015, 022, grid 024	pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete

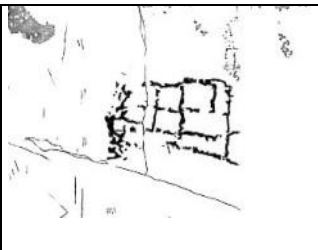
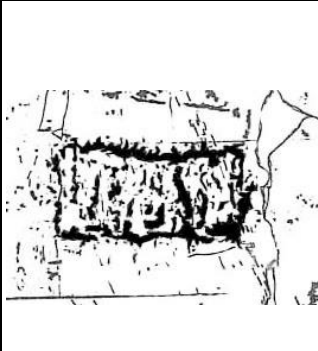
	PIV.9_016	G	Double rectangle. Quite regular contour with fine pecking that sometimes includes bigger pecks. Semi-rectangle suffixes on the upper side.	Good-mediocre	horizontal	Over simple rectangle 017, under the two parallel lines n.16 and traces of other figures.	Double rectangle 018, 022, grid 024	pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete
	PIV.9_023	G	Double rectangle. Quite regular contour with fine pecking that sometimes includes bigger pecks.	Good	horizontal	Under figures, 016,020,021,	Grid 024, double rectangle 018 and 015	pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete

OTHER GEOMETRIC LINES

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRON OLOGY	NOTES
	PIV.9_021	G	two lines, one horizontal and another vertical in connection 90 degrees.	Good	horizontal	Over line 016, and double rectangle 022	Double rectangles 015,018, 022	pecking	IIB ? Neolithic/Early Copper Age (IIIA0)	State of tracing in the area: incomplete

GRIDS

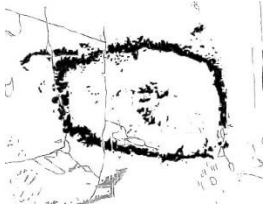
IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_025	G	Grid figure. In part, its left side is interrupted by a crack of the rock surface. Fine pecking.	Good-Mediocre	horizontal	No	Rectangles 022, 018 and 015	Pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing: incomplete

	PIV.9_026	G	Grid figure on irregular contour. Fine pecking.	Mediocre	horizontal	No		pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing: incomplete
	PIV.9_009	G	Grid figure. Quite regular and thick geometric contour but indiscernible the internal divisions. Fine-mid pecking.	Good	horizontal	No		pecking	IIB Neolithic/Early Copper Age (IIIA0)	
	PIV.9_004	G	Grid figure. Regular and continuous contour. Fine pecking,	Mediocre	horizontal	No		pecking	IIB Neolithic/Early Copper Age (IIIA0)	State of tracing: incomplete

OVALS

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_005	G	Circle in contour. Fine and scarce pecking render the contour difficult to read in some parts.	Mediocre-Poor	-	Under Iron age axe 006 (?) and under incisions 007	Grid 004	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

RECTANGLE WITH DOT

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_008	G	Semi-rectangle shape in contour with a dot in the middle. In horizontal position, on the upper part of the rock. Pecking similar to grid 009.	good	horizontal	No	Grid 009	pecking	IIB Neolithic/Early Copper Age (IIIA0)	

GROUP OF DOTS

IMAGE	NAME_FIGURE	CATEGORY	DESCRIPTION	ST. CONS.	ORIENT. ON THE ROCK	OVERLAP.	ASSOC.	TYPE OF R.A	STYLE AND CHRONOLOGY	NOTES
	PIV.9_015	G	Group of dots. Profound peck. Location on the rock: edge of the right upper part	Excellent	-	No	-	Pecking	IIB Neolithic/Early Copper Age (IIIA0)	

6.3 Analysis of data

The repertoire of the two rocks under examination, is comprised of geometric figures that belong in a class called topographic engravings, or else more commonly topographic maps that on the base of superimpositions and associations, have been assigned to Late Neolithic/ Early Copper Age (IIIA0 style) (Arcà, 1999; 2007; Fedele, 2011). They are comprised of various rectangles, simple, with double base, in contour or filled and sometimes in contour with a dot in the middle. Other shapes are grids, ovals, and group of dots (Table Paspardo R.9 In Valle). Instead, the bandolier, maculae, mushroom motif, and maccheroni are missing. Then a IIIA1 Remedellian phase is represented by a Remedello dagger on R.6, Bronze Age on R.9, Iron age on both rocks and probably historical times in R.9 with incisions.

In Valcamonica identical motifs of IIIA0 could be found principally in the areas of Vite, Paspardo Castello, Dos dell'Arca, Foppe di Nadro. In Valtellina, where some comparisons are identified where maps are encountered at Dosso Giraldo and at Caven (Teglio). Topographic maps is a rock art phenomenon that receives a wider diffusion in the Alpine area, outside Valcamonica, in Mont Bego where many thematic and morphological similarities exist allowing a setting of parallel chronological and stylistic horizons (Arcà, 2013).

Their dating in the transitional phase between Late Neolithic and Early Copper Age is relevant to two possible interpretations linked to settlement and to agropastoral economy. It is not clear yet whether Neolithic or Copper Age is the closest date for the geometric elements. If Neolithic, pieces of cultivated land are more possibly represented while for the Copper Age the bandolier for example could stand for fortified walls with bastions and other rectangular habitation structures and villages.

Based on superimpositions taking place on engraved boulders (chapter 4.4), figures such as filled rectangles with a double base, alignments of dots, but also maculae of the IIA, are underposed to IIIA1 (Remedello 2, 2800-2400 B.C), so they cannot be dated after. Archeological findings from the area of Paspardo e.g the green polished axe from Vite and some coarse pottery sherds are found in association rather intentionally on rock 36 with iconographic content related to the transition. Morphologically the axe has been estimated between the final phases of Neolithic to early Chalcolithic (Fossati, 2007) confirming the date estimation of the overall context.

Landscape elements both in micro (the rock itself) and macro (landscape context and view in general) scale were taken into consideration as important for the engraving content and the position of the rocks but not in a deterministic sense because sociocultural parameters may be defining this process and it needs further study. Also, so far it has been an unwritten trend to associate certain valley areas with a

specific type of rock art: middle valley with topographic engravings and at the same time Luine area more with weapons for example. This work has proved with the study of R.6 that a considerable iconographic context exists in the lower valley too together with weapons, shifting the weight of rock art studies not only in the lower valley but also illustrating other important rock art phases in Valcamonica that received less focus on great rocks such as that of R.6 in Luine. Both parameters have been considered initially but also verified in the process as vital for the reconstruction of long rupestrian sequences.

GEOMETRIC MODULES	LR.6	PIV.9
filled rectangle	Yes	No
simple rectangle	Yes	Yes
double-based rectangle	No (?)	Yes
grid	Yes	Yes
ovals	Yes	Yes
simple rectangle with dot in the middle	No	Yes
Simple rectangle	Yes	Yes
group of dots	No	Yes
Bandolier	-	-
Mushroom figure	-	-
Maculae (<i>Funghi</i>)	-	-
Macheroni	-	-

Table 6 Frequentation of geometric modules engraved on R.6 Luine (LR.6) and R.9 In Valle (PIV.9).

The content of this thesis has tried to highlight some of those questions and tried to illustrate the importance of some sites for other less stressed rock art categories and chronological phases bringing

also to light some new rock art elements for the first time. How and to what extent do all these apply to the two rocks, Luine r.6 and r.9 In Valle Paspardo?

R.6 Luine (LR.6)

The lower valley: The repertoire of the rock 6 for the periods in examination (Neolithic and early Copper Age) is comprised of simple rectangles, double rectangles, circles, grids, other incomplete geometric figures and a Remedellian dagger. The rectangles are both in contour and filled. The two sectors where the figures are concentrated, are sector D and H (Sigari and Fossati, *in press*).

Sector D

Numerically, the greatest concentration of topographic maps which in addition presents a great homogeneity in technique coincides with the sector D. There, simple rectangles, grids and an oval shape figure are represented in a delimited area on the SouthEast part of the rock. All figures lack superimpositions in a sufficient distance one another maintaining their autonomy but allowing conclusions for association, apart from grids. Those, overlap fish figures dated to Paleolithic (Sigari, 2018) and in one case, they overlap between them. The overlapping grids maintain good analogy with the underimposed figures and, as all of the modules in this sector, have maintained similar pecking technique to the Paleolithic fish, that interestingly has not been continued for any of the other topographic figures on sector H.

In addition, overlapping did not have the form of cancelling of the previous figures. Instead, fish are masterfully overlapped in such a way that grids enable to re-enact in the engraved scene of the panel, allowing significant parts of their body e.g. head, tail to be seen in great part.

One of the grids, the biggest one, results with a big vertical depression in the middle. I consider this grid to be a superimposition of two analogous grids; one on the right and one on the left so that the right side of the one overlaps with the left side of the other resulting in a deep hollow depression in the middle. They are of the same type to grid 027. And this is the reason why in both sides they have similarly to that grid an identical linear continuity on one of their sides, finishing outside the figure shape. It seems that the left rectangle is under the right one and they both share a very straight and well shaper superior side, that judging from the uneven pecking of the baseline, it must have been done with some additional means. It is typical of all figures of Set.D to present a good quadrangular shape. The fact that the outline of this grid results concave and short on the bottom, while upper side is linear for both

rectangles may suggest that either both rectangles have been done on the same moment or submitted to posterior modification. Some big pecks on the linear formation of the upper side are evident.

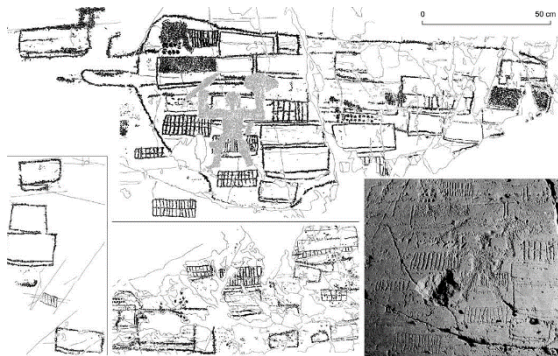


Fig.33 Tracing and photo of Vit.13, Paspardo. Source: (Arcà, 2007)

Exact type of examples to compare this case do not exist, because of the peculiarity of this figure, but grid forms, as additional modifications that respect the formation of previous figures, are known on R.64-sector B of Vite in Paspardo. In this example, rectangle shapes and grid forms in contour continue perfectly the quadrangular shape of a macula. Or on Vit.13, quadrangular modules present an internal gridform subdivision. (Fig.33)

The other grid, overlapping fish below the superimposition of the two grids, on the contrary to the case of figure 027, has more stressed the vertical axe and is of a delicate style could be compared to those from Val Pellice, the painted composition of Balma di Mondon that were dated by Arcà between late Neolithic and early Copper Age (Arcà, 1999; Fossati, 2013) (Fig.34).

Grids do exist also in Caven Valtellina, but I have avoided comparison because according to published tracings they seem to have thicker contour and more brief internal vertical lines (Arcà, 1999) contrary to R.6.

In Mt. Bego, grids correspond to the Valcamonica chronology. Two of the most famous examples are on the rock of “Farse Sorcerer” where a grid is under triangular blade daggers and a horned figure;

the other is from rock of the “Anthropomorph with zig zag arms” where grid is superimposed by an anthropomorphic figure (Arcà, 2004).



Fig.34 The composition with grids from Balma di Mondon, Valle Pellice (drita tracingi A. Arcà). Source: (Daudry & Fossati, 2017)

Rectangles on this sector have a sparse allocation but tend to appear in groups, usually of two each time. e.g. 011-012. Similar pairs could be noticed in some Paspardo rocks, Vit.66 and Vit.1. Almost all of Luine R.6 geometric elements retain a good and angular shape, but some are not complete represented only on their three sides (011,014,017,016) and one has lost its upper part due to rock fracture and

detachment of superficial levels e.g. 023. Geometric figures on three sides find similarities in other rocks of the valley e.g. rock 51 of Foppe di Nadro set. A2 (Medici & Gavaldo, 2019).

This sector, keeps a relative analogy having about as many grids as rectangles. The rectangle 014 stands somewhat in the middle, even though it is considered with the rectangles due to overall shape characteristics. It declares the existence of some additional lines that would not exclude the possibility of a transformation to grid in progress. Transformation of topographic maps in their shape and internal divisions is not strange because if they are reflecting landscape, landscape always changes.

A circular figure outlined with scarce dots has been identified during digital tracing probably with a dot in the middle and it is the only oval shape of the sector (figure 015). The technique looks at first sight similar to circle 005 from sector H but its contour is interrupted and it cannot be said for sure.

In terms of technique, some comparison would be possible with the geometric modules in the Valtellina and the area of Dosso Giroldo (Fossati, 1995; Arcà, 1999). However, the coarse deep pecking of sector D is contrary to the delicate fine pecking of Paspardo maps and maybe only those of Dosso Giroldo (Grosio) could be compared (Fossati, 1995; Arcà, 1994).

Sector H

Sector H spatially occupies the biggest engraved area on the rock and encloses the biggest concentration of figures as already older publications have heightened (Anati, 1962) as well as rock art sequences. And in these, differs from sector D. The repertoire of our interest is comprised of simple rectangles, composed rectangles, circles and a Remedello dagger. The rectangles are both in contour and filled in various ways. The modules are either in underimposed (003) to Iron Age figures or associated to other rectangles in grouping. In this section of the rock the geometric figures present greater variability on shape and different organization.

The examples presented here in the thesis come from two different parts of the sector. The first is a simple rectangle in contour with a vertical middle line, filled with some pecks, and it is associated with a line on the top 002. Studying old photos from archive other similar rectangles exist on the rock but further tracing needs to be done. Again, for comparisons Dosso Giroldo is suggested. The figure is associated to an Iron Age warrior overimposing a circle.

On the other, around the middle and up of the sector there is a cluster of various rectangles gathered around a fractured part of the rock and the unit is comprised of: simple rectangle in contour in an

inclined position and another simple in contour vertically but with a lot of pecked dots internally (here tracing in the state of progress) (Fig.36).

A third rectangle, positioned vertically and has great interest because it combines three different styles allocated vertically like a cake: The upper part is in contour and filled with dots just as the aforementioned one; right below continues filled completely but the contour is still evident; then there is a space without engraving and continues below completely filled. On the top, on its short side some pecks create a small semicircular protuberance (*tracing in progress*). The figure is very consumed. Exact confronts of this type do not exist and therefore the figure retains a character of originality but oblong figures with variable morphological consistency do exist. Even though the figure changes internally its structure, it never loses its outline. It seems that whoever executed it was just adding to the original structure always respecting the previous one. This conceptual and technical patterning is encountered in the Paspardo quite often. Vit.64 is a good comparison as already mentioned for other examples on sector D. The same small external protuberance on the top, we see it on the double rectangles of PIV9. In other rectangles from Paspardo area it is pecked on the inside (Vit.62) (Fig.35).

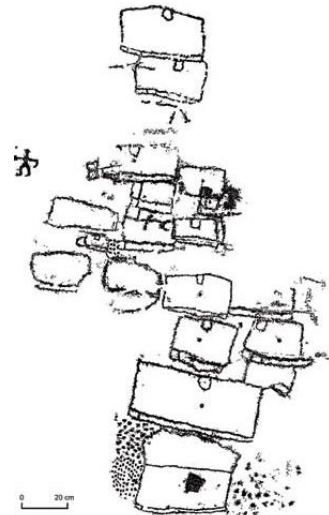


Fig.35 Rock Vit.62 Paspardo. Source: (Arcà, 2007)

This group of rectangles are positioned in association with a Ciempozuellos dagger (IIIA2) dated to Bell



Fig. 36 Contact tracing of geometric figures and a Ciempozuellos dagger, Set.H, Luine R.6. (Tracing in progress). Photo and tracing: C.A

Beaker phase that confirms a longer term of association of Neolithic figures during Copper Age and the uninterrupted chronological sequence of the rock (Fig.36).

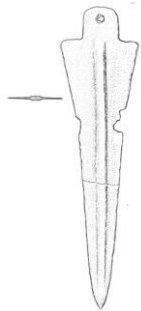
Circles are part of the general family of oval figures (Arcà, 1994). Sector H has circles of two types: simple contoured circle and a variation of the above motif of double circles.

It is comprised by one circle in contour and

one with scarred pecks. It is not clear whether the second is definitely a circle but it has a circular formation. Similar example we find on r.8 Vite but those are on only contour instead.

Simple circle comes under the leg of an Iron Age warrior with empty body. It is in contour and the dot close to the leg of the warrior is obscure whether it belongs to the circle or not due to the fact that other dots are pecked close to the body on the other side. So, we cannot be absolute if it is about a circle with dot or a simple circle in contour. On superimpositions, circle 005 on its interrupted part of contour, done with sparse dots has some incisions, touching over the dots of the circle.

Apart from Neolithic figures, sector H reveals a sequential continuity to the early Copper Age (IIIA1) with the presence of Remedello dagger (004). It is recognizable from its long blade and its rectilinear base



identical to the well dated daggers excavated from Remedello cemetery (De Marinis, 2013) (Fig.37). The pommel of its blade is constructed by also an additional part (figure 004a) that even if looks like a blob, it has been considered as part of the handle as an additional element for its enhancement. The dagger (004 and 004a) has no overlappings and it is associated to a double circle motif. Confronts there are numerous in

Fig.37 Dagger in copper from t.62 South Remedello. Source: (De Marinis, 2013)

Valcamonica both on flat rocks and monumental compositions, the most known the boulders of Cemmo. It remains however, still problematic, as Fossati notices (Fossati, 2007) the interpretation of weapons on immovable rock during Copper Age and it is indeed a problem that arises when for example also for the depictions of spears

engraved on various rocks of Paspardo e.g. Dos Costapeta rock 1, Dos Sulif rock 1, PIV.9. The relation to the aquatic element would be interesting, as will be elaborated further below. Rocks 4, 21, 22, 23 di Foppe di Nadro for example are close to little streams and on the other side, the topographic maps on those rocks are placed on the liminal rock areas, illustrating as in this work, some specific preferences in the engraving of figures.



Fig. 38 Contact tracing, Vit.8 (Source: (Arcà, 2007)).

R.9 In Valle (PIV.9)

The repertoire of the rock, in reference to the chronological period under examination in this work is comprised of geometric figures. Simple rectangles, double rectangles, circles, grids, a group of dots, create a thematic unit that could be placed in the transitional period between Neolithic/Early Copper Age (IIIA0).

Observing the figures of PIV.9, we notice that all of them have a quite diligent contour with no great interruptions despite their state of conservation and pecking, and they are all in contour. Starting with the technique all of them are in pecking, fine pecking. However, with one fast look 3-4 different pecking styles on the figures can be divided fast. Most of them, have fine pecking that is encountered in general on geometric figures of Vite area but with some bigger pecks here and there on the contour line (001,003,016,019,023) and sometimes the contour is with conspicuous irregularities (001,003), a morphology that is given to the work of the hand. Another pecking style very characteristic is “on dots with intermittent gap” between them. Sometimes some parts may be more filled. Unfortunately, motifs on this style are the most prone to consumption on the rock surface and difficultly identifiable especially when other scarce dots occur on the area. That was the case of only two figures on the rock: the circle 005, and the simple rectangle 018.

In great contrast to this style that gives a sense of lighter figures, comes a more solid and coarse execution with figures on thicker contour that we encounter in the simple rectangle with a dot 008 and the grid 009. Comparable examples of reticulates with this style come from Rupe Magna in Valtellina (Arca, 1995), and somewhat closer to this style are other rocks from Vite e.g. Vit.8 (Arcà, 1994)(Fig.39). The simple rectangle 010, presents greater regularity of both contour and pecking. Overall, apart from figures 008 and 009 contours follow the linearity that the geometric figures demand and retain thin delicate outline.

It can generally be said that the natural morphology of the rock, divides the rock art composition into two distinct areas, both spatially (N/NE-S/SW) and in terms of organization and characteristics of rock art figures. On the left side, geometric figures present an organization per couples: two simple rectangles on the top, and further below circle and grid. None of the figures overlap between them, rectangle-rectangle and circle-grid, but only with other figures. On its left rectangle 003 is under a multi-armored Iron Age warrior (IVE style). Circle 005 on the other, comes under a group of oval/rhomboid group of incisions of undefined period but probably of historical times, and probably under a beautiful axe of late Iron Age (IV4-IV5) IIIrd millennium A.C (Fossati, 1991). The fact that the axe is pecked inside the circle and it is dubious due to the pecking execution of the circle whether its point of blade touches 1-2 pecks to consider it superimposition, I would retain that since whoever made the axe having the circle present decided to respected it perfectly and not cancel it, it is not a superimposition but it will definitely be considered an association.

On the right side of the crack, from the crack and towards right, figures present a gradual condensation as we proceed to the right extremity of the rock. On the central part, they are more isolated and a bit dilatated in size leaving enough empty space between them and with few and clear superimpositions.



Fig.4 Geometric motifs from Dosso Giroldo, Grosio (SO). Source: (Arcà, 1999)

However, on the lower part below the praying figure the tracing is incomplete and probably more figures exist in reality. The rectangle with dot on the top, as well as the other strange figure on its right and the area of the grid below consist a technically homogenous unit. In terms of allocation though, the

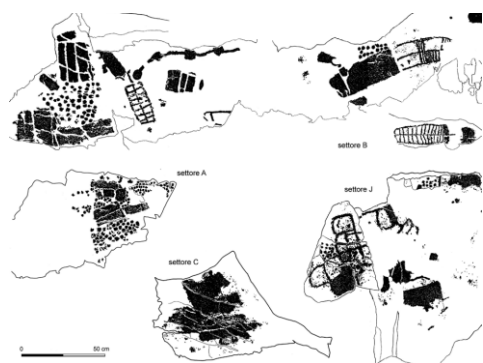


Fig.40 Contact tracing, Vit.64 Paspardo. Source: (Arcà, 2007)

rectangle with dot has been considered individually, first due to lack of superimpositions and second because it stands out for its dimensions in respect to the other figures and the decentrated position. This motif finds impressive similarity to a figure from Rupe Magna, sett.AG (Arca, 1995) both as a shape and execution. Even the detail with the small line on the side of the contour is also represented. Other



Fig.41 Contact tracing of Vit.36, al de Plaha, Paspardo. Source: (Arcà, 2007)

rectangles with dot from Valtellina are known from Dosso Giroldo (Grosio, SO) (Arcà, 1994; Fossati, 1995) (Fig.40). From Valcamonica we find them also on other rocks of Paspardo Vite area e.g. Vit.8 (Arcà, 2007). Here the rectangle figure, though does not seem to be in association with other figures as in Vit.8, may except the grid 009 due to technique.

The simple rectangle under the female Bronze age praying figure (Tognoni, 1995; Arcà, 1997) and the circle with dot that usually accompanies it, presents interest for two reasons. First, it is a figure with well-defined thin outline, good rectangle shape with the right side on a subtle arch and why its superior side is interrupted by a big dot only to be continued later something is unknown. The same is noticed also on the other simple rectangle 018 on its bottom side. The execution of the latter though with scarce pecks does not allow a conclusion on the intentionality of this trait. Second, on the left of the figure, a horizontal line protuberance. Geometric figures with this characteristic line appear in Paspardo (Vit.66, Vit.36) but not really explained (Fig.41). One proposal here could be and intentionality for expansion of the figure and in fact many geometric modules have been submit to processing (Vit.13, Vit.64) (Arcà, 2007, p. 46; fig.16) with the addition of further parts or other motifs. Interestingly, the superimposing circle was selected to take advantage of a part of the rectangle outline. Praying figures but also Iron Age warriors (as the case of simple rectangle 003) that overlap rectangles, are known from Vite r.63, Castagneto r.2 where a warrior of IV3 style and an “orante” overlap a double rectangle on the first and Iron Age warriors overlap oblonged double rectangles on the second. On Vit.13 a IV2 warrior covers rectangle figures. Apart from the praying figure, the simple rectangle of the central part is associated to a torso of a human figure dated to Iron age (Morello, 2009), based on studies of incomplete figures from Dos Sulif rock 1 Paspardo pecked inside the rectangle and beside the female orant.

On the right side, a group of dot follows the natural morphology of the rock. Groups of dots in various alignments are a common module we meet frequently in the Paspardo area and not only, either individually or as a filling of other figures, underimposed or not on flat rocks or monoliths (Arcà, 1994; Arcà, 1999; Arcà, 2007; Cittadini, 2017; Medici & Gavaldo, 2019). In Dos dell’Arca, where geometric figures of the same horizon are dated, dots are associated to rectangles (Sluga, 1969). Spatially, albeit groups of dots are usually seen more on the internal part of the rock surfaces, the selection of the borders of the rock for their representation is repeated also in Vit.64 sett.A (Arcà, 2007).

A group of three double rectangles and two grids are engraved on the right bottom of the rock. With the single rectangles engraved under present a well allocated composition of four rectangles divided in cross section, so that we have two horizontal and two vertical. Two grids and another geometric figure that overimposes one of them (023) complete the scene. With the help of older photos from the site, it is noticed that this area of rectangles is expanding further below following more or less the same line composing a big structural unit. Even though it is not clearly delimited by other figures, it recalls the organization followed for the so called “Villages”, term used to describe principally structures such as

that of Vit.13 comprised of numerous simple and double rectangles, grids and maculae in an area outlined by a perimeter that could be interpreted as a wall or fence. Other rocks, with or without having protective structures around, can still present a similar allocation of geometric modules e.g. Vit.62, Vit.29, Vit.20, Dos Costapeta (Arcà, 2007). A double rectangle placed horizontally has been pecked with its right side literally identifying itself with the natural margin of the rock. Going back to single rectangles it repeats the case of 001 where the right side was pecked on a similar way on the natural rock limit of the crack attaching it showing that the positioning of the figures in relation to the natural morphology of the rock, its immediate created landscape, it not casual. Geometric modules occupying liminal areas of the rock outcrops seem to be happening (e.g. Vit.64, Vit.3, Foppe di Nadro R.23). This group of geometric modules is associated on the right (S/SE) with a group of spears dated to Bronze age based on a classification by De Marinis with confronts from Dos Costapeta Paspardo (De Marinis, 1994).

A “smart” use of natural features is evident also in the two little grids under and beside the complex of rectangles. Both of them have used the cracks of the rock instead of a representation of a vertical line internally. There are various types, the most common of which are: 1) with internal vertical lines; 2) with internal vertical lines interrupted horizontally by another line. Examples of the first category we encounter in Pellice and Caven (Fossati, 2013; Arcà, 1994). On this rock there are only of the second category, and only one (009) with doubt could be attributed to the first. Despite the other figures that we have seen so far may present some similarities with the Rupe Magna area, grids instead, retain characteristics more familiar to Paspardo. On Rupe Magna appear substantially isolated and have a different morphology (Arca, 1995). Here, are closer to Paspardo examples as we have seen with Vit.13, Vit.64 but their pecking is not so deep and they are visible only with the aid of additional means. In addition, none of them is isolated and are found only in association with other geometric figures.

How can these figures be interpreted? In Valle is a forestall area but with openings to the valley, one of which is the delimited position of R.9. Rocks in Valtellina areas which comparisons have been made, are in landscape openings too (Arcà, 1994; 2007) providing similar contextual conditions. Having said that and based on more extensive previous studies (Arcà, 1994; 1995; 1999; 2007) for this kind of figures it is concluded that these figures are topographic maps dated to Neolithic/Early Copper Age or IIIA0 Valcamonica rock art style and in particular IIB specifically for topographic maps classification.

What can be noticed from the comparison of the two sites? Could they reflect differences and affinities between middle and low valley? The comparison shows that both sites are:

1. Open air, with good view in the valley,

2. Have long rock art sequences,
3. Are proximal to water resources,
4. Present some internal organization but in a different way each one of them
5. Have similar iconography but they still retain a character of originality each,
6. Have a variety of pecking techniques,
7. They are both overlapped and associated by Iron Age figures,
8. Their sequences are verified by archeological material
9. From spatial study of the rocks and wider context it results that they both consider immediate landscape and natural morphology of the rock for the construction of the panel
10. None of the overlappings indicates intention of cancelling and I would say that sometimes such as demonstrated for the case of Sect.D in Luine, it could be characterized better as integration.

The differences could be summarized in:

1. Small (PIV9) vs big rock dimensions (R.6)
2. R.6 bigger engraved area with big density but rare overlapping vs PIV9 smaller area accepts overlapping
3. R.6 retains a Remedellian phase that lacks from Paspardo r.9.

Also, the study of long sequences has verified the absence of IIIA1 and monumentalisation in the high-altitude area of Paspardo.

In particular, R.9 of Paspardo is located in a wooden environment and it stands out despite of its small dimensions, for its strategic position retaining significant perspective as well as for its rich thematic repertoire. It is reachable only through a narrow and steep path in the woods, so someone has to be in knowledge of its presence to reach (or use the path anyway), and its narrow perimetrical area does not allow more than three people to work but its small dimensions have not grudged prehistoric people to visit it repeatedly, leaving in the end a long rupestrian sequence. It was frequented for at least the last phases of Neolithic to Early Copper Age, followed a hiatus for Remedellian and Bell Beaker phase, continues in Bronze Age and Iron Age but also later, however the tracing is not complete yet to provide the whole sequential line here in this moment.

Its proximity to aquatic resources could be presumed to have some important association to the represented elements: four very elegant and detailed axes with fine pecking dated to Iron age and the presence of shovels (Fossati, 1994; 2001) are figures that exist also on the rocks above (e.g. R.4). Tangible evidence for presence in this chronological horizon and the symbolic connotations of the motifs, is additionally verified by the finding of a votive axe dated to Bronze age on the foot of R.4 and published in 2009 (Fossati & Morello, 2009). This habit recalls older practices as that of the deposition of Vit.36 polished axe.

The iconographic repertoire for the IIIA0 is organized in figures *per two* or in groups (village?) that take into consideration the natural elements of the rock (cracks and rock limits for rectangles or curvatures and rock limits for the group of dots) that would not exclude some adaptation of the elements' morphology to them. The presence of the big crack in the middle I presume it could be easy to be envisioned as a river (Oglio?) when the water or the smelting snow would flow enhancing visual stimulation. What is for sure is that micro topography (Nash, 2017), when selected, is not only a prop to promote the supposed narrative but also a way to represent the real landscape more representatively if possible.

It is true that rock art is never explicitly descriptive and always retains a metaphoric meaning. Simple and double rectangles could be suggesting pieces of land worked plow that justifies their greatest regularity of shape in respect to the maculae of an earlier Neolithic moment. Houses of rectangle formation and some "village" organization have been recovered in the site of Breno (Fedele, 1988). It is not excluded that the concentration of rectangles on the one side of the panel signify new social and occupational organization schemes. Circular constructions of have been recovered in the French Alps, called *gias* linked to high altitude frequentation for pastoral activities (Bianchi, 2013). In northern Italy during this time of transition a high-altitude frequentation starts (Keller, 2001; Keller, Baioni, & LoVetro, 2010). Paspardo area is almost 1000m a.s.l with many rocks engraved in this phase and could be easily inscribed in this frame maybe hosting similar structures. Grids, rectangle with dot and the group of dots could be more linked to agricultural activities. As the works of Arcà suggest grids are close to the idea of *histe-casné*, a wooden vertical structure to dry the wheat, typical of the Central Alps (Arcà, 1999). It could also recall structures from Anatolia *Cayonu Tepesi* that were used for the store and dry of barley and wheat, therefore indicating crop surplus, and the *Mehrgarh* structures from Indus valley (Baluchistan) (Arcà, 1999). Both cultures in this moment of production surplus were demonstrating early copper metal working (Arcà, 1999; 2004). Alignments of dots on the other could either be the

representation of fruit trees seen from the above or stooks (namely small stalks gathered when they have been cut) or less possible groups of animals (Arcà, 1999; 2004). The open view of the site could justify the representation of those elements that could consist the natural scenery of the valley from that location and correspond to chronocultural horizon set by archeological data the figures are date.

For this, similar explanations could be given for the same pre-Remedellian elements in Luine. R.6 of Luine on the other which lies on a small plateau in a less forest environment and stands out for its big dimensions. As PIV.9, it also has a key position with open view towards the valley, a rich iconography and long rock art sequences. Together with R.34 of the same area of the most perdurable ones. Interestingly they are both in proximity to water resources that the woods offer abundant to Paspardo and thermal resources and proximity to Oglio River are considered important parameters for the site.

The Luine R.6 surface studied with internal sector division by us (Set.D, Set.H) seems to have followed a rational organization despite its figurative exuberance in some parts, also in the past. Rectangles are set in group of two or more but retaining their autonomy. Natural limits, cracks or edges of the rock were preferred. If the representation of topographic maps is linked to the cultivation of land, water and sun must have been important prerequisites for a fruitful production. In the open-air site, the selection of the sector D which is closer than the other sectors to aquatic resources, might have not been casual. The preference for limital areas for maps representation indicated also by other sites in the valley, places inscribe the conceptual scheme of r.6 in the general approach to rock art and landscape of the time. All the above, could justify the interpretation of geometric figures as topographic maps.

R.6 sequences follow a more uninterrupted evolution from what can be suggested in respect to the association of figures. Paleolithic, Neolithic/Early Copper Age, Copper Age (Remedello 2), Campaniform, Iron Age are verified. Bronze age exists on the rock (Anati, 1982) but at the moment no relevant association has been identified to the motifs in examination. Apart from the maps, the presence of a Remedellian dagger on the rock allows secure the definition of a chronological and contextual moment (2900/2800 - 2400 B.C) based on the well dated material recoveries from Remedello cemetery. It has no superimpositions and is in close proximity to circles. On the position of a natural furrow of the surface on the upper side of the rock close to the path, one could put his real metallic weapon to rest. The second chronological moment and rupestrian phase is dated to 2400-2200 cal B.C and attributed to Bell Beaker cultures due to the present of a Ciempozuellos dagger, is associated to rectangles. A late Iron Age warrior (IVF) closes the series of sequential associations.

Chapter 7: Conclusions

In this work, the thematic rock art units studied are encapsulated in the chronological horizon between Late Neolithic to early Copper Age IIIA1, correspondent to the second occupational moment of Remedello cemetery (2900/2800 - 2400 B.C). The iconographic repertoire included topographic maps and one Remedello dagger. The engravings registered came from the rocks of Paspardo (R.9 In Valle) and R.6 of Luine selected as case studies for their lengthy rupestrian sequences, association to archeological material collections and excavated areas and spatial distribution in the valley.

Their analysis included field visits with contact tracing registration, cataloguing and digital processing. For their interpretation bibliographical research and study was conducted. The chronostylistic division proposed by De Marinis and adopted has been proved reliable, in cross data examination of rock art motifs and archeological material. The rock art sequences for Valcamonica that resulted on the base of overlappings and associations in this study for Paspardo and Luine were (Paleolithic), Late Neolithic/early Copper Age (Copper 1), early Copper Age (Copper 2), (Copper Age Campaniform, Bronze Age, Iron Age).

I believe that Valcamonica rock art is not a regional phenomenon but, extends beyond its geographical limits as a part of a wider framework of social and ideological changes that could be reflected in similar times in different places because culture, part of which rock art, production is above all a series of conscious and unconscious socio-cognitive mechanisms (Oosterbeek, 1995). Therefore, comparisons with other areas have been considered crucial. The main references in this sense include: Mt. Bego, Valtellina and other sites of the Alpine area. The use of a network of contacts based on trade and exploitation of local raw material outcrops was much present in the valley as demonstrated too for the associations of archeological material.

The vast majority of figures belong to the IIIA0, transitional phase as described by Fedele (Fedele, 2011) and are interpreted as schematic representations of anthropisation landscape and habitation structures. This rock art assumption matches with the profile of archeological data describing an agropastoral society in transformation. Focus on evolution of Neolithic rock art have allowed a follow up assumption on prehistoric people's socioideological transformation taking place, with misted subsistence strategies suggesting some relation to landscape. To the support of it, archeological material and excavational sequences from Valcamonica and a few other important sites from Northern Italy have been correlated.

In the longevity of this passage, a revision of the past and reoccupation of older sites inaugurate for the first time the construction in Valcamonica history, perdurable long sequences settlements. During that moment a similar expression of return to previously engraved rock art surfaces such the case of R.6 Luine with Paleolithic rock art, is what this work has demonstrated. The return to the “older” rocks followed rather a specific thematic orientation related to the agriculture of land and herding or with the first indicatives of social organization, with preference to landscape criteria such as strategic position with view to the valley that was the same prehistoric people considered when they were selecting to occupy reoccupied settlements. The productivity intensification has led to the search for new raw material resources, especially the local ones that would provide them greater autonomy for their cultivation and animals but the privilege of exclusive management would also be form of territory control and power. For this I assume that water resources regained significant importance and sites such as Luine that provisioned also thermal water and proximity to Oglio bank would have not been trespassed.

High altitude areas such as that of Paspardo on the other, could have been better in control of water sources, herding activities, used as observatory points linked to other areas lower, or destined for specific cultivations (products may have been used for trade?). Vite for example as its name denotes, was an area where wine was cultivated from prehistoric times until 40 years ago when it was abandoned. The small terraces are still present. Changes in the modality of production devoted to technological advances have given, anachronistically speaking, time and space for a variability of techniques to emerge for the cultivation also with the use of different plant species, leaving a different mark on the land (variability). In combination to more permanent settlements, has led to the accumulation of wealth and production (quantity). The variability and augmented quantity of rock art motifs interpreted as topographic maps during IIIA0, would have presupposed the above two elements of reality.

It is concluded with all the comparisons and their context provided, that the similarity of rock art elements in places geographically and sometimes culturally distant, demonstrate a conceptual unity that existed on the background that very often is impossible to infer from the phenomenal as similarities of what remained from the non-verbal gestures as recovered archeological material. This impossibility of material has been taken into consideration, and instead the focus on the stratigraphical horizons as contextual realities parallel to the rock art has been proved very useful to set the rupestrian positioning and chronology.

The return to the past as a shelter of security but also as an identity reference point was the result of a series of long fermentations and significant advances during Neolithic: agriculture, herding, permanent house construction, the domestication process, the invention of plow, the setting of trade and communication networks even long distance, the (re) discovery of raw materials and the power of transformation (conquered especially with the onset of pottery) and ideological transformations are some of them. The advent of pottery and later with agriculture etc. was a significant turning point in history not only as a technological advance, but more, to my opinion, as moment when human first realized the existence of process of transformation as an energetic factor himself. That as an operator could transform its own reality and, to some extent, context and take on the responsibility of the consequences of his own decisions. The second turning point was with the advent of metals in Copper Age. Metal objects amplified human potentiality of gestures but it was the only reason. During this moment a new ideological and artistic wave took place (Anati, 1979) characterized by monumental compositions, and a new thematic rock art unit comprised of animals, human figures, symbols, plowing scenes. The engraving tradition continued on flat rocks as R.6 has demonstrated, but without following the structural convictions of monumental compositions. Such changes, identified for Neolithic but could apply also to Copper Age that include population growth, ecological adaptations, growing sedentism and economic intensification, growing interaction (trade and social prestige), technological innovations and ideological main changes (Oosterbeek, 2017). However, as mentioned in the main part, these changes do not take place always in the same time or everywhere in the same way. On the left orographic side sites such as Cemmo, Ossimo etc. exhibit on rock art clear change, in Paspardo it has been verified also by this work similar traces of monumentality and typical IIIA1 elements are absent.

Transformation of figures involved both present and anterior figures as a part of a natural process and prehistoric people seemed to know that well. From the current data in this thesis, what prevails more instead for this category of rock art on the rock is the value of association. Transformation and change require (return and) critical revision of the past before proceeding to mechanisms of assess and integration of the new. In that sense it is important the notice promoted here on change of rock support with previous iconographic context and at the same time the presence of new elements e.g R.9 Castello fringed mantel on previous supports. In addition, the respect of previous figures and their integration to the new panel without complete cancelling while the adoption similar pecking technique in Luine R.6 is unique because it demonstrates that this passage towards early Copper Age has been done without abrupt interruption but with assimilation of the past in Valcamonica.

And this is more evident considering the smaller dimensions of sector D in respect to sector H for example, that all figures retain their spatial and individual autonomy due to the lack of overlappings while remaining in a sector that for some reason remained unaffected from the rest of the intense engraving activities taking place the rest of the years a few meters away on the other sectors. PIV.9 and Luine R.6 revealed modifications on the notions of space, apart from those of time, evident on the cautious selection of positioning of figures on the panel and landscape as well as a tendency for consideration of natural rock elements for the engraved or the visionary scene.

The selection of position on the lowest part of the rock (close to the valley view and water resources) for the representation of fish and maps already for r.6 or the allocation of the topographic maps in respect to the big crack, natural borders as well as the position of the rock could explain the above transformations. The affinities that PIV9 and the spiral superimposition of R.4 In Valle Paspardo with Rupe Magna, and the comparisons of monumental compositions allow to be seen the strong connection links between the two valleys on a local level. So, it all concludes to assume that transition was not an abrupt or violent event with the advent of a new cosmotheory out of the sudden, but rather a long term systematic process that came rather naturally.

In this thesis it is the first time after the photographic material from the documentation of 1950's that a tracing of topographic maps from great rock 6 of Luine sees the light and an insight in the important elements of this chronological phase of the rock, representative also for the low valley has been elaborated. It has also been of the first, if not the first, detailed elaboration of PIV.9 rock to be done that despite its small dimensions it has been proved as great. I hope that this corpus will be an interesting base for reflection and food for stimulation on other future works in Valcamonica.

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