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The ochre painted stones from the Riparo Dalmeri (Trento). Development of the research on the art and rituality of the Epigravettian site¹

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SUMMARY - *The ochre painted stones from the Dalmeri Rockshelter (Trento). Development of the research on the art and the rituality of the Epigravettian site* - The Dalmeri rockshelter is located at 1240 m a.s.l. on the northern edge of the Piana della Marcesina (Grigno – Altopiano dei Sette Comuni – Trentino). From 1991 the stratigraphic excavations carried out by the Museo Tridentino di Scienze Naturali have revealed a sequence of anthropic levels datable to the Recent Epigravettian. The interdisciplinary research has allowed us to reconstruct part of the spatial organisation of the site and the resources exploitation of the mountain environment by the Epigravettian hunter-gatherers. Two principal dwelling phases can be identified in the anthropic levels. The first, dated at about 13,200 years ¹⁴C cal BP, represents the most ancient human dwelling phase (US 65/15a) and is strictly connected to the location of 229 stones painted with red ochre. The second phase, dated at about 13,000 ¹⁴C cal BP, corresponds to the dwelling surfaces 26c and 26b that conserved evident structures (hearths) and latent ones (subcircular structure interpreted as a hut). The paintings in red-pigment (hematite) were carried out on oolitic grainstone from the natural landslide which took place before the human settlement occupation. The restoration of these paintings yielded different types of figures: zoomorphic, signs, anthropomorphic, hands, composite figures on both sides and diverse types of stones with red pigment traces. The dimensional analysis of the stones revealed a certain standardisation in the choice of the calcareous supports used. The spatial distribution of the painted stones highlighted a preferential belt of concentration orientated on an east-west axis inside the most ancient settlement level (US65/15a). The present data suggests that an area had been marked off in this most ancient settlement level of the rockshelter where ritual activities took place. Even though the complexity of the rituals is not clear to us, the data available at this time suggests a spatial organization, which will become more evident after further excavation.

RIASSUNTO - *Le pietre con pitture in ocre di Riparo Dalmeri. Sviluppi delle ricerche sull'arte e la ritualità del sito epigravettiano* - Il Riparo Dalmeri è localizzato a 1240 m s.l.m. sul margine settentrionale della Piana della Marcesina (Grigno - Altopiano dei Sette Comuni - Trentino). A partire dal 1991, gli scavi stratigrafici, condotti dal Museo Tridentino di Scienze Naturali, hanno messo in luce una sequenza di livelli antropici, attribuiti all'Epigravettiano recente. La ricerca interdisciplinare ha permesso di ricostruire parte dell'organizzazione spaziale del sito e le modalità di sfruttamento delle risorse dell'ambiente montano da parte dei cacciatori-raccoglitori epigravettiani. Nei livelli antropici possono essere distinti due momenti insediativi principali. Il primo, datato tramite carbonio 14 attorno a 13.200 anni cal BP, rappresenta la più antica fase di occupazione umana (US 65/15a) ed è in stretta connessione con la deposizione di 229 pietre dipinte con ocre rossa. Il secondo, datato attorno a 13.000 cal BP, corrisponde alle paleosuperfici d'abitato 26c e 26b, che hanno conservato strutture evidenti (focolari) e latenti (struttura sub-circolare interpretata come capanna). L'ampliamento degli scavi stratigrafici verso l'area esterna durante la campagna di ricerche del 2006 ha permesso di individuare e scavare due fosse, indicate con le sigle S1 e S2, in fase con la deposizione delle pietre dipinte e contenenti depositi intenzionali. I dipinti con pigmento rosso (ematite) sono stati realizzati su calcare oolitico, che costituisce il deposito di crollo precedente la fase di frequentazione umana. Il restauro delle stesse ha messo in evidenza differenti tipi di figure: zoomorfe, schematiche, antropomorfe, mani, figure composite su due facce e diversi tipi di pietre con tracce di pigmento rosso. L'analisi dimensionale delle pietre ha permesso di notare una certa standardizzazione nella scelta dei supporti calcarei utilizzati. La distribuzione areale delle pietre dipinte permette di riconoscere all'interno del più antico livello di frequentazione (US 65/15a) una fascia preferenziale di concentrazione orientata secondo un'asse est-ovest e disposta a ventaglio a partire dalla zona ingresso della struttura abitativa sub-circolare. All'interno della fascia, la frequenza delle pietre dipinte non è omogenea, ma mostra un forte incremento numerico in prossimità delle strutture a fossa S1 e S2. Al momento del ritrovamento, gran parte delle pietre è stata rinvenuta capovolta con la faccia decorata rivolta verso il basso (75%). I dati presentati suggeriscono che nel più antico livello di occupazione del riparo è stata delimitata un'area dove venivano svolte azioni di tipo rituale. Sebbene la complessità del rito ci sfugga, i dati finora acquisiti suggeriscono un'organizzazione degli spazi la cui intenzionalità potrà essere meglio evidenziata con il proseguimento e l'ampliamento degli scavi.

Key words: Riparo Dalmeri, Recent Epigravettian, mobiliary art, ochre, styles

Parole chiave: Riparo Dalmeri, epigravettiano recente, arte mobiliare, ocre, stili

¹ I contributi dei singoli autori sono equivalenti

1. INTRODUCTION

In the last fifteen years of prehistorical research in alpine areas, the Dalmeri Rockshelter has represented a reference site for the understanding of mountain exploitation by the Epigravettian human groups (Fig. 1). The excellent preservation of the faunal and lithic remains and of the dwelling surfaces has allowed a first reconstruction of the paleoeconomy, the dwelling organisation and the site function. During the last seven years of the research, a new and complex prospective on Epigravettian art and spirituality appeared following the discovery of a large number of red ochre painted stones with naturalistic and schematic figures (Dalmeri *et al.* 2006). In north-east Italy the artistic testimonials are exclusively made up of mobiliary art that mostly come from three deposits: Tagliente Rockshelter, Villabruna Rockshelter and Dalmeri Rockshelter (Fig. 2). The latter is dated to the Allerød interstadial. Some remarks on the mobiliary art style of the Dalmeri Rockshelter have been previously proposed on the basis of the stones coming from the excavations of 2001 and 2002 (Dalmeri *et al.* 2002, Broglio & Dalmeri 2005). A. Broglio and C. Monotoya (Broglio & Dalmeri 2005) proposed a primary contextualization on a regional level of the mobiliary production present in the Dalmeri Rockshelter. The authors underlined a clear stylistic affinity in the production of naturalistic and schematic figures from the Dalmeri and Villabruna Rockshelter sites. In this paper, the Dalmeri Rockshelter paintings will not only be analysed for their stylistic value or the techniques used but will also be considered as representing ideological gestures and concepts. The number and the variety of types and styles of the painted stones justify their spatial elaboration and allow the development of a hypothesis that they were not positioned in a casual way, but according to a ideological concept. The principal intention of this work is to highlight the archaeological context in which the painted stones were found and to propose an interpretation based on an analysis of the spatial relationships between the stones themselves. This space structuring using mobiliary art works would be difficult to equal in any other European site.

2. THE EPIGRAVETTIAN SITE

2. 1. The stratigraphic deposit

The stratigraphic excavations, still ongoing, have yielded an anthropic deposit ^{14}C dated to the last phase of the Upper Palaeolithic and referable to the Recent Epigravettian culture. The rockshelter opens on to the head of a small periglacial valley, a tributary of the deep canyon of the Valsugana, crossed by the river Brenta (about 250 m. a.s.l.). The morphogenesis of the rockshelter is the result of the differential erosion of the stratified limestone bedrock (oolitic lithofacies of the Jurassic Rotzo Formation) due to the combined action of carbonate dissolution and cryogenic processes during the Last Glacial Maximum (Dalmeri *et al.* 2005, 2006). The shelter faces N-E and extends NNW-SSE for 30 m. The rock overhang reaches a maximum of 7 m. and its actual height above ground is of 4 m. The shelter's stratigraphic succession



Fig. 1 - Dalmeri rockshelter. Simulation.

Fig. 1 - Riparo Dalmeri. Simulazione.

covers a chronological period from the end of the Upper Pleistocene to the Holocene. It is about 4.5 m. thick and has been subdivided from bottom to top into the following stratigraphic complexes (Fig. 3):

- cryoclastic breccias associated with fine fraction (UUSS 54, 53, 52, 51). This group of units dated 13.590-13.250 ^{14}C cal BP 2σ is covered by a breccia (UUSS 15b, 50).
- structuring with painted stones. This phase, including the UUSS 74, 15a, 65, 26d-e, represents the initial moments of human occupation. The oldest structure identified, situated on the dripline, is US 74, an accumulation of blocks coming from the roof. At the top of this accumulation was found the large stone RD211 with an anthropomorphic figure. This structure is partially covered by US 65, which is an organic matrix breccia rich in anthropogenic components (lithic industry, faunal remains and charcoals). This breccia reaches its maximum thickness of 55 cm on the dripline, while it decreases towards the inner shelter zone. Human occupation during this phase of painted stones structuring is also demonstrated by the existence of two hearths in the east part of the shelter and

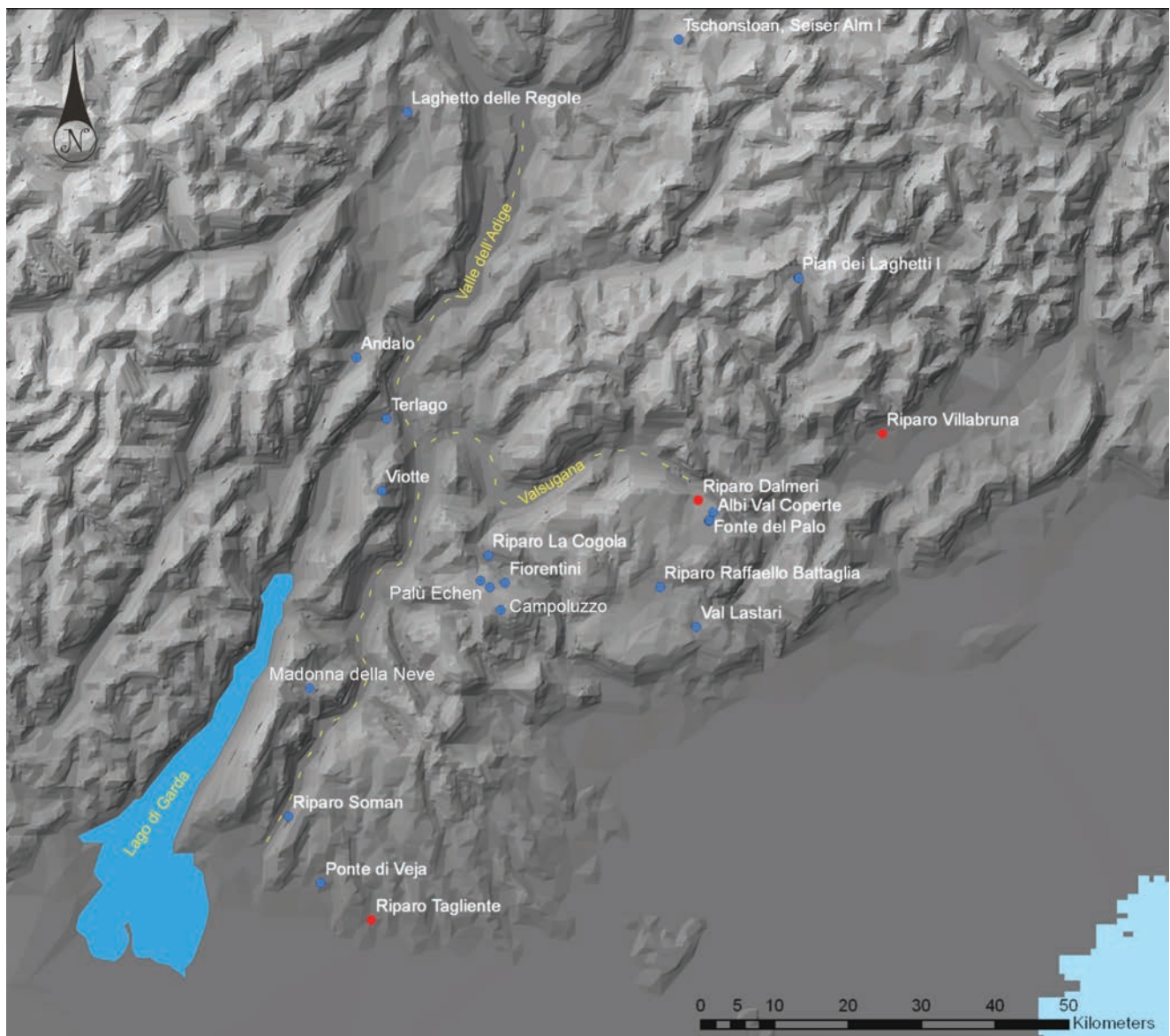


Fig. 2 - Location of epigravettian sites in northern-eastern Italy.

Fig. 2 - Distribuzione dei siti epigravettiani dell'Italia nord-orientale.

by the first evidence of a dwelling structure with a 4 m. diameter. This settlement phase is defined by three dates (13.410-13.210, 13.300-13.120 and 13.300-12.940 ^{14}C cal BP 2σ).

- anthropic horizons (UUS 26c, 26b-14) that develop on a parent material made up of a cryoclastic breccia (US 15b) enriched with micaceous silty black loam sediment with a high organic matter content, associated to abundant lithic industry, bone tools and faunal remains lying horizontally. In the west these units have an average thickness of between 5 and 10 cm and they extend from Q. 39 H÷N to Q. 45 H÷N for about 35 m². The chronological placement of the levels 14/26b and 26c, radiocarbon dated to 13.310-12.940 and 13.130-12.900 ^{14}C cal BP 2σ is consistent to the techno-typological features of the lithic industry, typical of the Recent Epigravettian.

- 4) The upper sequence is made up of a series of breccias with mainly a loam sediment support.

2. 2. The interdisciplinary research

From 1991 to today the interdisciplinary research, aimed at reconstructing the paleoenvironment, the understanding of the paleoeconomy and the spatial organisation of the site, has been principally carried out on the archaeological material coming from levels 26c and 26b-14. The paleoenvironmental reconstruction indicates an open environment of alpine prairie where some wooded areas of pines and larches were beginning to develop (Bertola *et al.* 2007, Broglio & Dalmeri 2005). The archaeozoological analysis has shown an economy specialised in ibex hunting, which represents about 90% of the determinable faunal remains. Other animals such as deer, roebuck

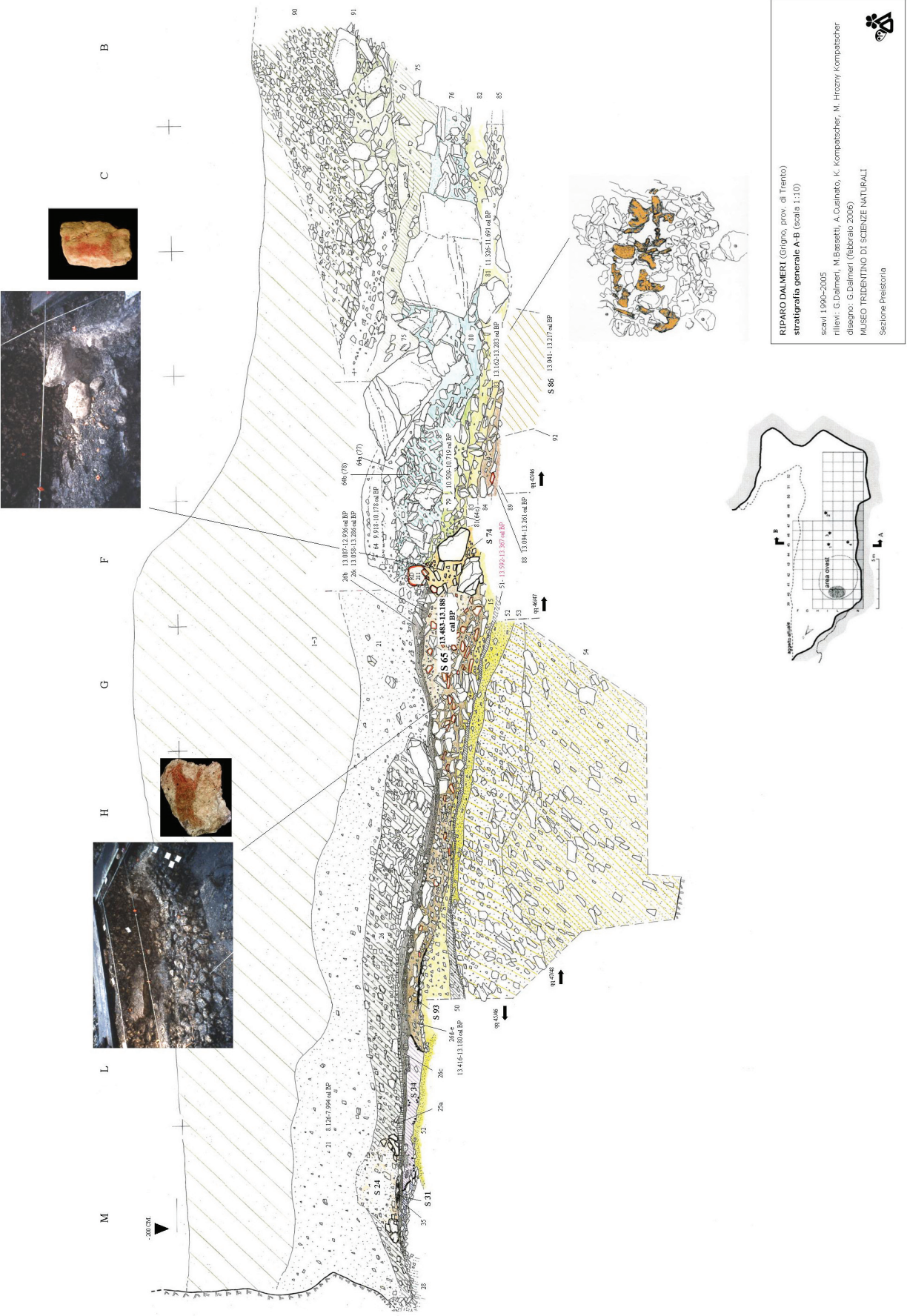


Fig. 3 - Dalmeri rockshelter, stratigraphic section.
Fig. 3 - Riparo Dalmeri, sezione stratigrafica dei depositi di riempimento del sottoroccia.

RIPARO DALMERI
SCAVO 2006

U.S. 86-S1
FOTOPIANO

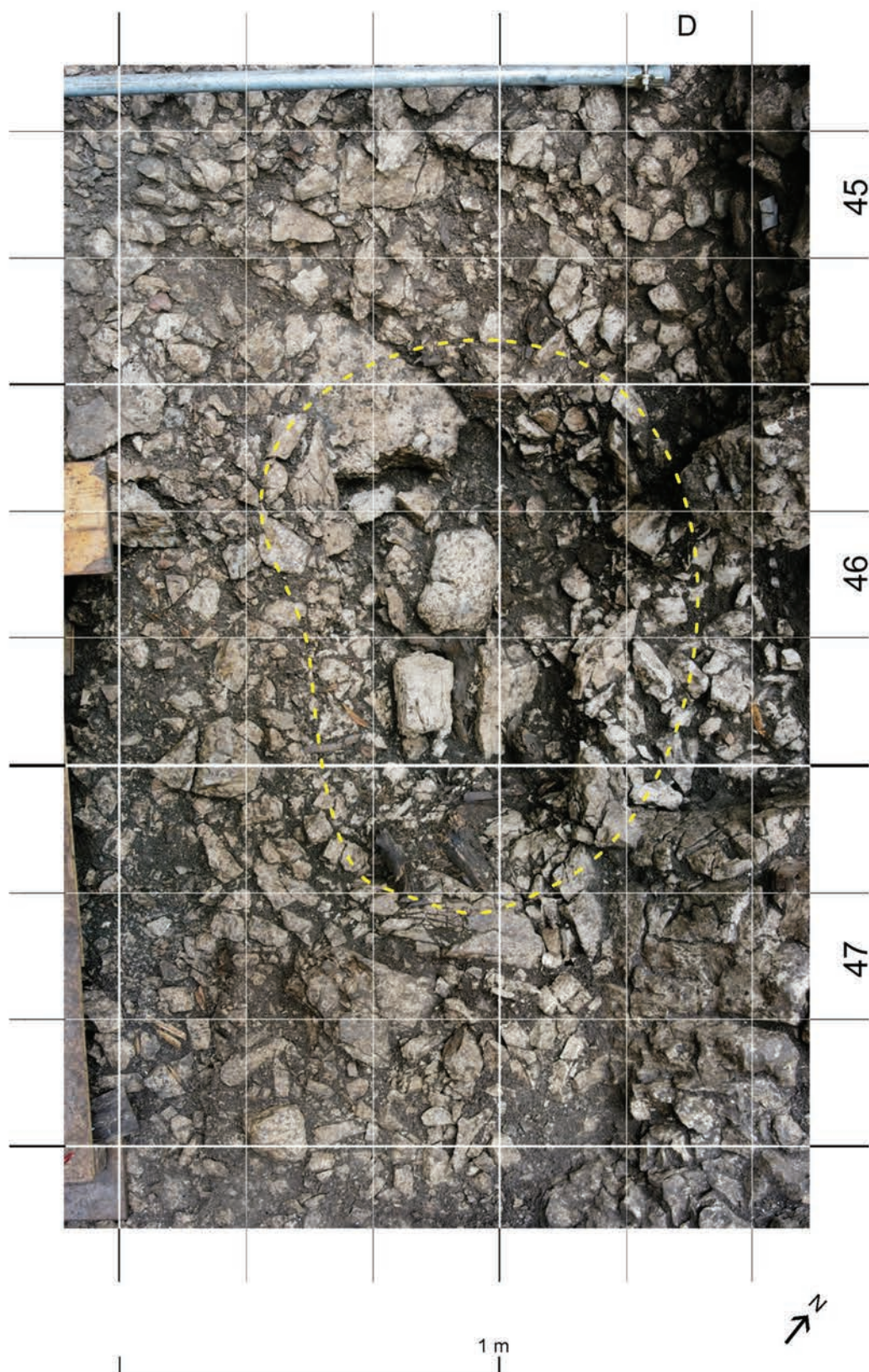


Fig. 4 - The dwelling surfaces U.S. 86 pit S1 (Kompatscher).
Fig. 4 - Paleosuperficie U.S. 86 fossa S1 (Kompatscher).

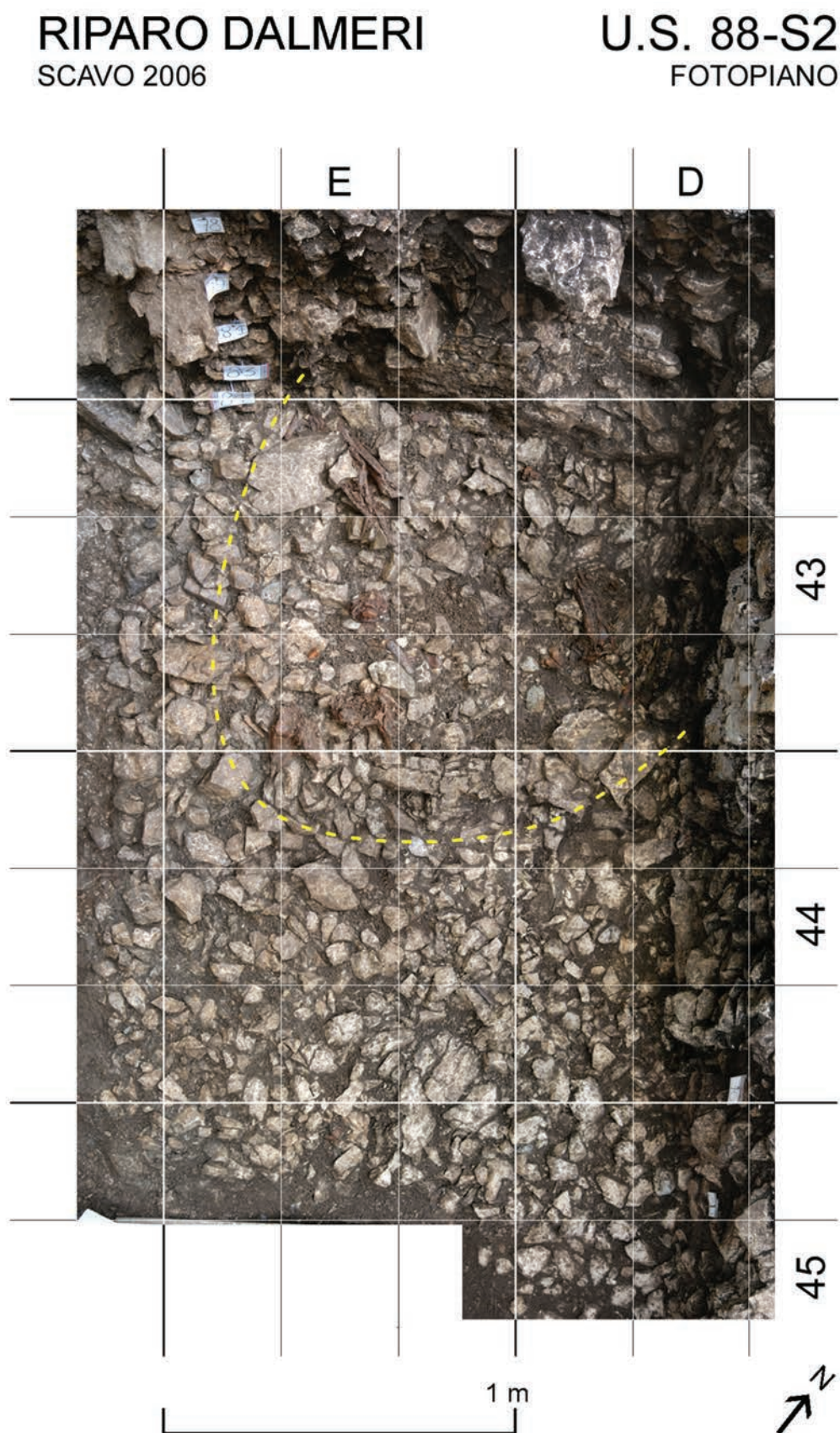


Fig. 5 - The dwelling surface U.S. 88 pit S2 (*Kompatscher*).
Fig. 5 - Paleosuperficie U.S. 88 pit S2 (*Kompatscher*).

and chamois and more sporadically bear and badger were hunted and butchered by the human groups using the site (Albertini & Tagliacozzo 2004, Cassoli *et al.* 1999, Fiore & Tagliacozzo 2005). The representation of the anatomic elements of ibex, the analysis of the butchering striae and of the percussion flakes show that the carcasses were processed inside the shelter which was periodically cleaned of the largest fragments. The archaeozoological analysis suggests an intense seasonal human exploitation of the shelter in summer and in autumn. It also underlines the role of bird hunting as shown by some striae from a lithic tool on a galliform humerus. The importance of fishing is demonstrated by remains that are principally of barbel and chub and less frequently of trout, grayling and pike, allowing us to theorise fishing activity in the river Brenta. The latter data suggests that the wide territory exploited by the Dalmeri rockshelter hunters included not only the alpine prairies of the plateau at 1200-1350 m. a.s.l. and the conifer forests at slightly lower level, but that it also extended as far as the valley bottom of the river Brenta at an actual height of about 200 m. a.s.l.

The structures identified in the dwelling horizons 26b-14 and 26c allowed us to trace a first partial reconstruction of the spatial organisation of the site. In the west part of the shelter a shallow circular topographic depression of over 4 m. diameter limited by stones mixed with lithic and faunal remains was identified during excavation. In this stone cordon, which had an opening facing east, a pole hole was found. The internal area of the structure conserved another three pole holes and some shallow topographic depressions. The most evident of these depressions contained an accumulation of faunal remains (denominated US 46) associated with red ochre powder. This spatial analysis of the lithic industry coming from the west of the rockshelter supported the hypothesis of the presence of the circular structure being seen as a hut foundation (Broglia & Dalmeri 2005, Lemorini *et al.* 2005).

The enlargement of the stratigraphic excavation towards the external area, carried out during the research campaign 2006, allowed us to identify and excavate the fillings of two pits shown as S1 and S2, containing anthropic deposits with ibex horns in them (Fig. 4-5). These pits are to be seen as natural depressions, limited by large broken off blocks, that have been formed by suffusion phenomenon such as the fusion of buried ice masses. These two structures are contemporary to the deposition of the painted stones (US 65) and therefore belong to the earliest moments of the site occupation. The oval pit S1 is more significant for the quantity of anthropic material contained and for the complexity of the sequence of the filling levels. The upper filling level was made up of ibex horns placed around some stones, one of which was painted with red ochre. The typological features of the lithic tools are very similar to other lithic assemblages coming from Epigravettian sites dated to the Bølling and Allerød temperate Interstadials situated in north Italy.

3. THE PAINTED STONES

3. 1. General characteristics

The majority of the painted stones were found in

unit 65, while others laid abandoned in the inner part of the shelter on top of the cryoclastic breccia (US 15a) (Fig. 8). The stratigraphic unit 65 corresponds to one of the first structures on the dwelling horizons of the site and extends for about 16 m² with a variable thickness from 10 to about 55 cm towards the dripline. This unit 65 has a function in the ritual placing of the majority of the painted stones. It is probably also contemporary to the hut base identified near to a wide rock niche in the internal wall of the shelter. The unit is made up of terracing regulated by even-sized local calcareous stones, many of which are characterised by ochre paintings and by being placed upside down. On the whole the distribution pattern of the painted stones draws a belt of about 30 m², more than 4 m. wide, running obliquely east west towards the rockwall. A preferentially fan shaped concentration, that more or less follows an east-west axis, seems to be respected (Dalmeri *et al.* 2005, 2006). From the entrance area of the dwelling structure the percentage of the painted stones increases greatly towards the east and in proximity to the pit structures S1 and S2, characterised by the presence of ibex horns and contemporary to the stones themselves. This distribution, which is still being studied, clearly shows a maximum density level of the painted stones in correspondence to qq. 43÷47/F. This creates a limit to the exclusive area near the external part of the rockshelter and the two pits.

Mineralogical and chemical analysis has been carried out on the red pigment (Broglia & Dalmeri 2005, Belli *et al.* 2006). The pictorial film is of a variable thickness going from 15 to 80 µm and many samples were originally covered with calcite layers. The Fourier Transform Infra Red analysis revealed the use of hematite as a pigment and this was also confirmed by the X-Ray Fluorescence analysis. The FT/IR analysis also allowed us to identify an organic component in the pictorial film of four stones. This component was a wax like compost, extremely similar to bee wax that could have been used as a binder for some paintings.

4. THE PAINTINGS: FIGURE TYPES AND SUPPORTS USED

229 stones with various pictorial figures have been examined (Fig. 9). The data has been updated to the excavation 2006. 12 categories of red ochre paintings or more or less complex associations have been identified and are listed below in order of frequency: 1) colour traces on one or more surfaces, 2) uniform colour on one or more surfaces, 3) zoomorphic figures 4) schematic figures or signs, 5) anthropomorphic figures, 6) colour associated to wear traces, 7) composite representations on two surfaces, 8) handprints, 9) colour associated with engravings, 10) bas-relief colour, 11) colour associated with line engravings and marginal polishing, 12) indt color. It is interesting that the biggest group of stones (n. 130) has only ochre painted traces on one or more surfaces. The stones with uniform colour on one or more surfaces (n. 36) are less frequent. The stones with zoomorphic (n. 23) and schematic (n. 19) figures are well represented. There are 7 calcareous supports with anthropomorphs: an interesting number considering the

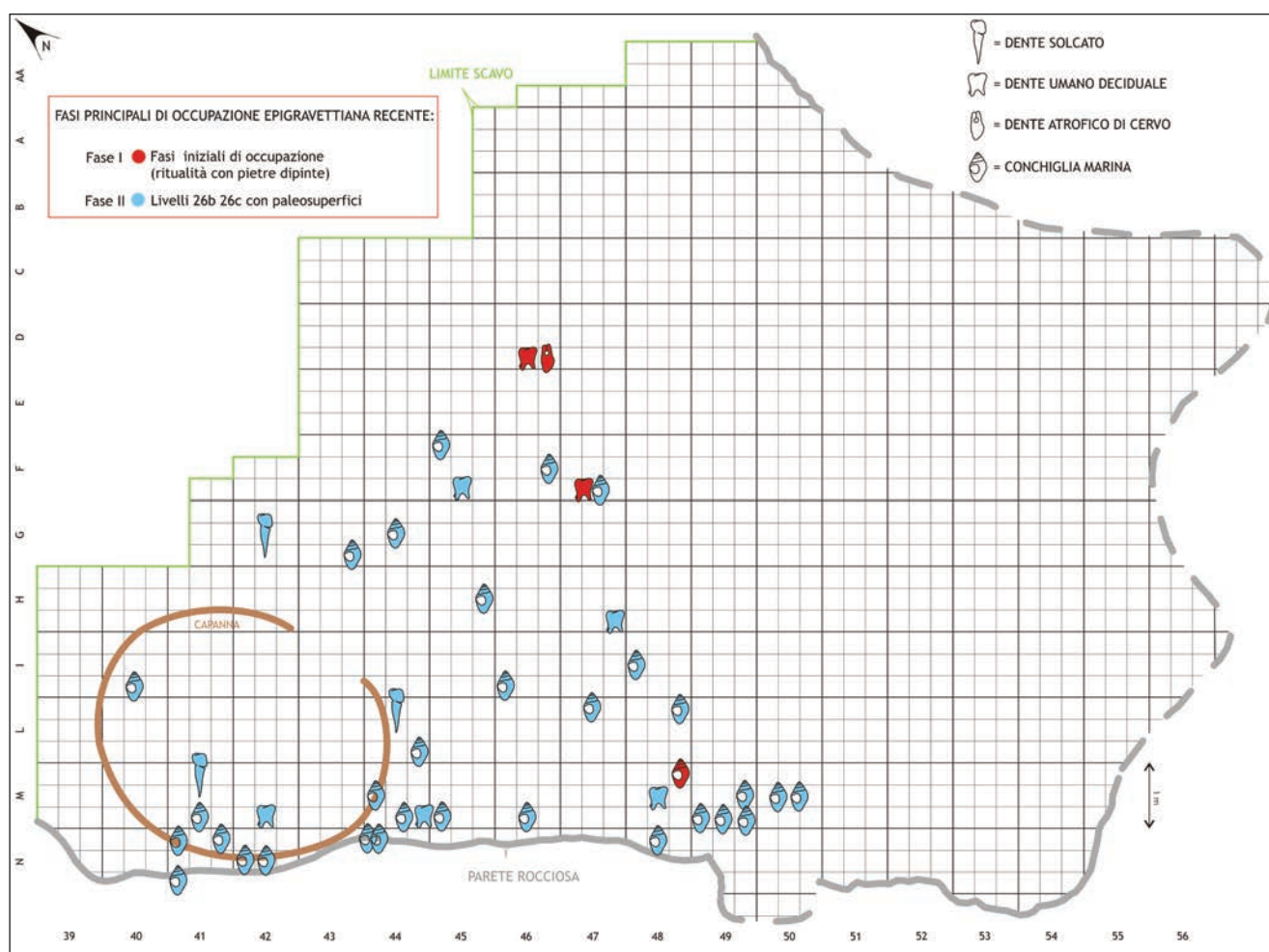


Fig. 6 - Location of deciduous human teeth and ornaments (animal teeth and sea-shell).

Fig. 6 - Distribuzione areale dei denti umani deciduali, degli ornamenti su conchiglia marina e su dente animale.

particular figure type. The other categories of paintings are less well represented.

4.1. Anthropomorphic figures

There are seven anthropomorphic figures in two stylistic typologies (Figg. 10, 11, 25). Two figures are of a naturalistic-verist type and 4 belong to the symbolic/schematic sphere. The paintings have been carried out on 7 calcareous supports, favouring flat surfaces.

4.2. Zoomorphic figures

There is a total of 25 zoomorphic figures (Figg. 12, 26). In the table shown we underline the most significant tendencies. There is a direct stone-figure relationship; only rarely can two figures be found on the same surface or on adjoining surfaces. Most of the animal figures are left facing (n. 18). The figures with more or less evident horns are the most frequent (n. 17) as are the static figures (n. 19). There are 23 stones with zoomor-

phic figures. The majority (n. 17) of the supports are entire. The animal position is often in the centre of the stone surface/face (n. 16) and there is a preference for concave and convex surfaces. This preference was probably motivated by a desire to give a type of plasticity to the figure. The majority of the stones (n. 16) were placed upside down on the ground.

4.3. Unrealistic figures (signs)

The typology of the unrealistic figures (signs) is quite varied (Figg. 13, 14, 27). Up to now this category consists of 25 elements. To summarise, the symbolic figures are simple or complex ovals, bands, angular and quadrangular geometrical motifs, associations of triangles, line compositions, star forms and curved or linear traces, in relief or associated with narrow linear incisions.

The unrealistic figures appear on 28 stones and repetitions are rare (oval ring, curved band, arrow, star form). The oval ring is present on four different stones. There were the same numbers of entire and fragmented stones.

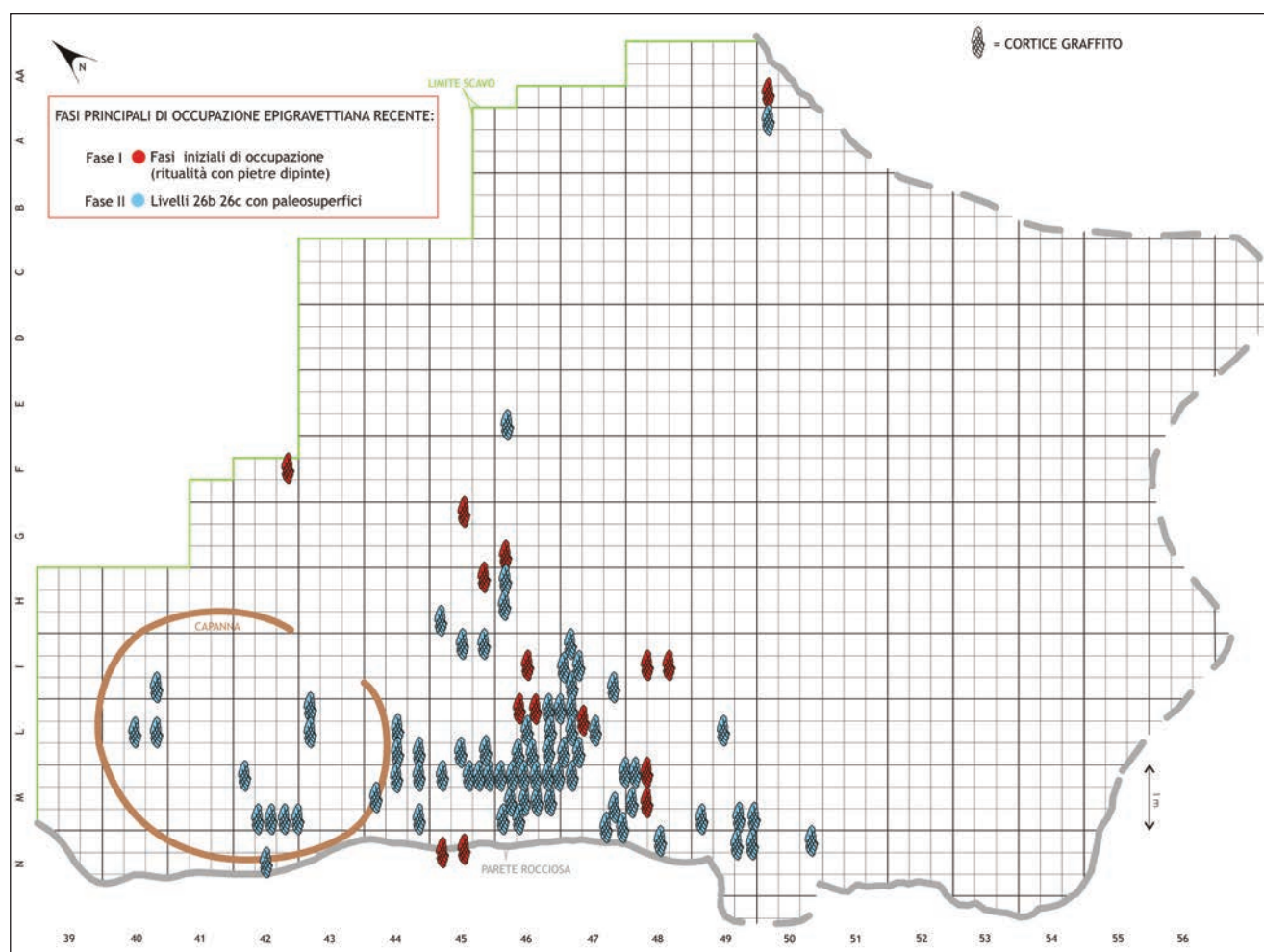


Fig. 7 - Location of graffito cortical.

Fig. 7 - Distribuzione areale dei cortici graffiti.

The painting is often in a central position (n. 15) and flat surfaces are preferred (n. 16). The majority of the stones were positioned with the painted face in contact with the ground (n. 15).

4. 4. Other observations

The majority of the paintings (62,7%) are on a single surface of the calcareous support. The next group is of those carried out on a surface and on an edge (23,4%). The paintings carried out on two or more faces are less frequent. On considering the morphology of the painted surfaces, the majority had the painting on a flat face (50,7%). There are also a significant number of paintings carried out on convex and concave surfaces (19,6% and 17,2%). Twenty-four out of 145 stones have preserved a type of recognition symbol or pictorial brand on the other side of the painted face. This brand is generally in a central position and is of various types such as simple ochre marks, clear dots or complex symbols ("branches" and "crosses"). Fifteen stones out of the 207 taken into

consideration showed heat alteration (Figg. 15, 16, 17, 18, 19).

4. 5. Dimensional analysis of the painted calcareous supports

An abacus was prepared for the analysis of the most frequent dimensional characteristics of the calcareous supports used for the paintings (length – width). This abacus was applied to 222 painted stones with figures and with colour traces, respecting the basic pictorial categories: zoomorphic, schematic/anthropomorphic, uniform colour and only red pigment traces (Figg. 21, 22).

zoomorphic figures (n. 23)

Even though it represents a limited number of stones, this pictorial category shows a higher dimensional frequency of between 17.5-22.5 cm length and 12.5-17.5 cm width (n. 7 stones). Another 5 stones are between 12.5-27.5 cm length and 12.5-17.5 cm width. Only one stone (RD 5) is

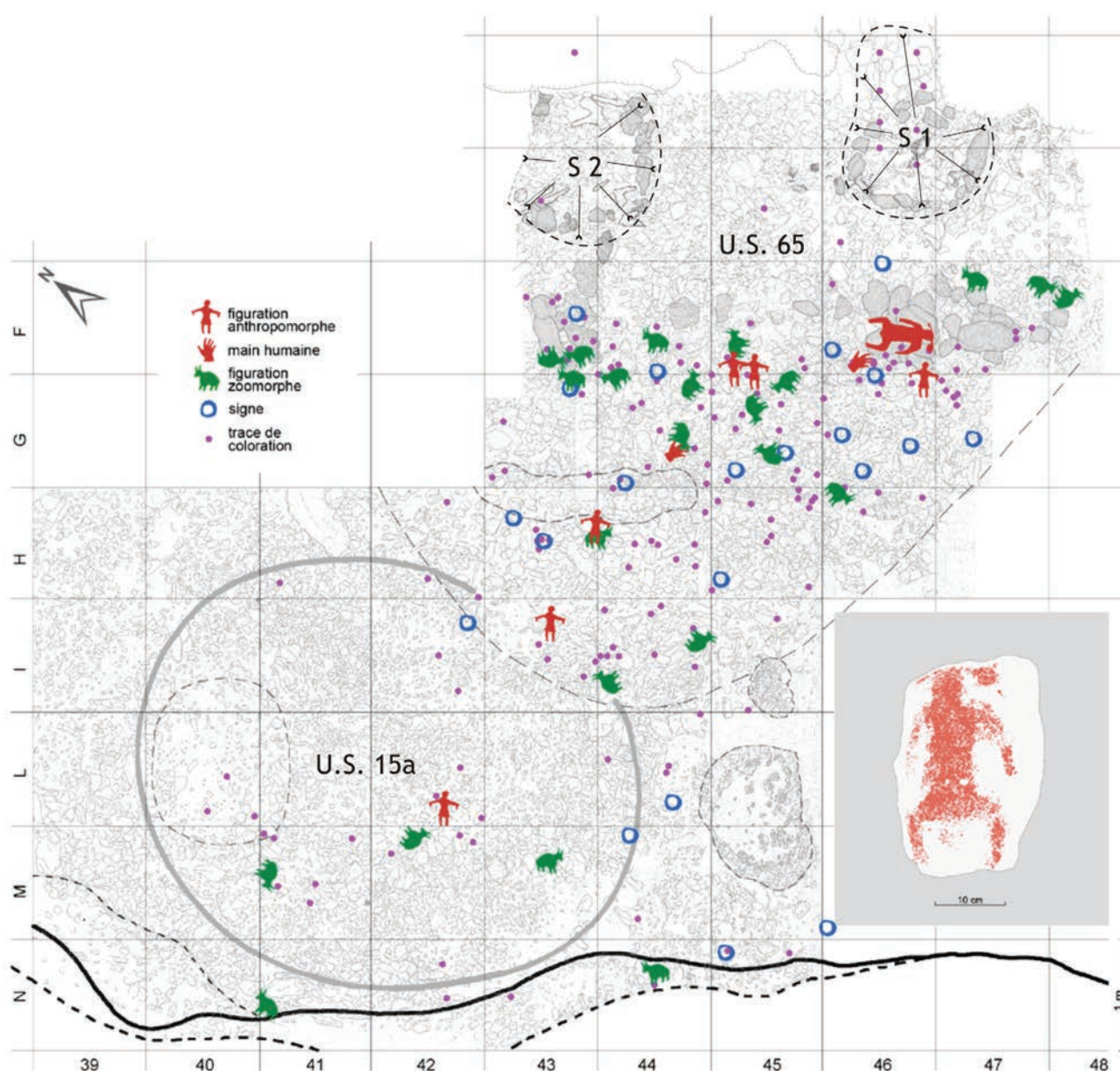


Fig. 8 - Localisation of the painted stones in U.S. 65 and 15a, in connection with the two anthropic pits S1, S2 (graphic elaboration K. e N. Kompatscher).

Fig. 8 - Ripartizione areale delle pietre dipinte nelle Unità 65 e 15a, in relazione alle due fosse di origine antropica S1, S2 (aggiornata al 2006) (elab. graf. K. e N. Kompatscher).

between 32.5-42.5 cm length and 17.5-22.5 cm width. The remaining stones are smaller and fit between 7.5-22.5 cm and 7.5-12.5 cm.

unrealistic (schematic figures), anthropomorphic figures and handprints (n. 31)

In the identified pictorial categories, the most evident dimensional frequency is represented by 9 stones of lengths between 12.5-17.5 cm and widths between 7.5 and 12.5 cm. Another six stones fit between 12.5-22.5 cm length and 22.5-27.5 cm width. The rest are smaller and fit

in the dimensional range of <7.5-22.5 cm length and <7.5-12.5 cm width.

stones with uniform ochre colour (n. 38)

A particular dimensional frequency cannot be seen in this pictorial category. However a general trend towards smaller dimensions can be noted. Twenty one stones fit between 7.5-12.5 cm length and <7.5-12.5 cm width.

stones with colour traces (n. 130)

This large pictorial category shows a general ten-

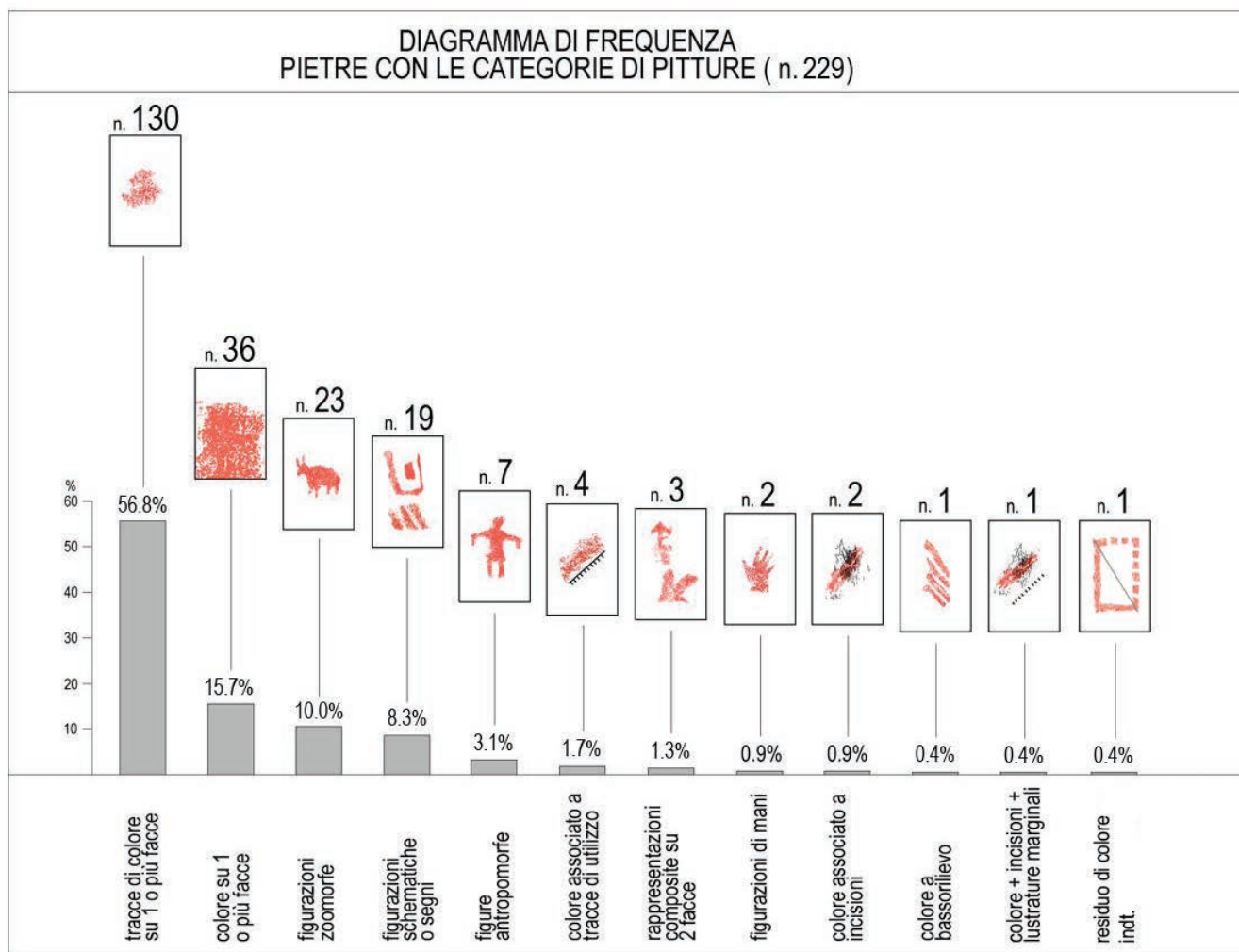


Fig. 9 - Various identified pictorial typologies.

Fig. 9 - Le varie tipologie pittoriche riconosciute.

dency towards smaller stones. The principal dimensional frequency appears to be between 7.5-12.5 cm length and <7.5-7.5 cm width with 40 calcareous supports. Another 66 supports fit in the range between 7.5-17.5 cm length and 7.5-12.5 cm width. One single stone is between 32.5-42.5 cm length and 22.5-27.5 cm width.

To summarise, two significant dimensional tendencies can be recognised in the four pictorial categories. The stones with zoomorphic and schematic figures are of medium-large dimensions with lengths from 7.5 to 22.5 cm and widths from 7.5 to 17.5 cm, while the stones with uniform colour or only traces are smaller and are characterised by lengths from <7.5 to 17.5 cm and widths from <7.5 to 12.5 cm. Consequently there is also a certain standardisation in weight.

This analysis leads to important considerations about how the stones to be painted were chosen:

- a certain standardisation appears in the choice of the calcareous supports used for the principal pictorial

categories.

- it seems possible that the choice of the dimensions of the stones was based on the importance of the paintings. This choice was also conditioned by the morphological characteristics of the supports themselves as well as the type of stone surface.

5. TOPOGRAPHIC LOCATION AND DIFFERENTIAL ORGANISATION OF THE PAINTED STONES

5.1. Initial observations on the topographic positioning

The area containing the painted stones is a belt of about 30 m² with a width of more than 4 m. It goes from east to west and is oblique to the internal rockwall of the shelter (Dalmeri *et al.* 2005, 2006) (Figg. 23, 24). A fan like concentration along an east-west axis seems to be respected. The number of the painted stones increases greatly in





RAFFIGURAZIONI ANTROPOMORFE (n° 7)				
figura completa	figura incompleta	raffigurazione naturalistica	raffigurazione schematica	figura naturalistica su supporto preparato
				
n. 6	n. 1	n. 2 (1 indt.)	n. 4	n. 1

Fig. 10 - Typologies of the anthropomorphic figures.

Fig. 10 - Tipologia delle raffigurazioni antropomorfe.

percentage when moving east from the entrance area of the circular dwelling structure towards the pit structures S1 and S2, that are contemporary to the stones themselves. A high density of painted stones, that create an outmost limit, can be seen in the qq. 43÷47/F. This boundary seems to limit a ritual area existing inside the dripline of the rockshelter where the two pits are.

Regarding the orientation, the upside down stones are about 75% of the total. The painted stones found face up were much less (19,5%) and those in vertical or oblique positions were very few. Scarce concentrations of face up stones can be found inside the subcircular dwelling structure and in the qq. 43÷44/F-G (Figg. 20, 24).

The majority of ochre painted stones was found inside the unit 65 that has a variable thickness of 10 to about 55 cm. Other stones lay scattered in the innermost part of the rockshelter on the top of the cryoclastic breccia (US 15a). The stratigraphic element 65 corresponds to one of the first structures of the dwelling level of the site. It extends over about 16 m² and was probably linked to a ritual positioning of the majority of the painted stones. It has been possible to identify 6 groups of overlying painted stones within the increasing thickness of unit 65 from the subcircular structure entrance to the outside of the rockshelter. These groups can be seen as a kind of intentional piling connected to the anthropic structure of US 65. These “nuclei” of painted stones with various figures in red ochre will be the object of intense research that will also include another 15 stones with painted traces found in qq. 41÷42/F÷G during the excavations of 2007. These stones are presently being restored.

5. 2. Organisation of the stones distinguished by pictorial typology

location of stones with zoomorphic figures

The location of the stones with zoomorphic figures follows the preferential belt of concentration of the entire pictorial complex made up of stones with red ochre paintings, placed in an east-west fan shape from the entrance of the subcircular dwelling structure. Some stones came to the light near to the rockwall and inside the dwelling structure, while the biggest increase in numbers appeared to the east at about 6 m. from the rock towards and near to the “pit” structures S1 and S2. It is not possible to see a preferential orientation or location of the painted animal images.

location of stones with unrealistic figures (signs)

The unrealistic figures or signs also reflect the general distribution patterns. The increase in numbers towards the east is confirmed, as is the maximum concentration in the F-G sectors. Significant associations of stones with similar figurative typologies have not been revealed.

location of stones with anthropomorphs and hand-prints

The stones with clear anthropomorphic figures or that show elements linked to human figures are mostly located in the belt of maximum concentration of mobiliary paintings. This means that they were near the outer limit of the site. Some were very close to the large stone bearing the anthropomorph RD211 (qq. 46/F-G), which was positioned on an artificial pile of stones at the furthestmost point of the concentration belt. Being much higher than the other








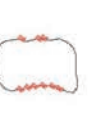
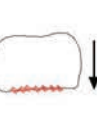
PIETRE CON RAFFIGURAZIONI ANTROPOMORFE (n° 7)								
pietra integra	pietra frammentata	figura centrata	figura non centrata	figura su superficie concava	figura su superficie convessa	figura su superficie piana	marcatura su faccia opposta	pietra capovolta
								
n. 4	n. 3	n. 4	n. 3	n. 0	n. 1	n. 6	n. 1	n. 3

Fig. 11 - Stones with anthropomorphic figures.

Fig. 11 - Pietre con raffigurazioni antropomorfe.









TIPOLOGIA RAFFIGURAZIONI ZOOMORFE (n° 25)							
pietra con 1 raffigurazione zoomorfa	2 raffigurazioni sulla stessa faccia	figura orientata a sinistra	figure orientate a destra	figura con corna	figura priva di corna	figura statica	figura in movimento
							
n. 21	n. 2	n. 18	(2 indt.) n. 5	n. 17	(2 indt.) n. 6	n. 19	(2 indt.) n. 4

Fig. 12 - Typologies of the zoomorphic figures.

Fig. 12 - Tipologia delle raffigurazioni zoomorfe.

stones, it certainly must have been a central element of the “ritual complex” and could have in some way conditioned the spatial organisation or the location systems of the other pictorial figures.

6. CONCLUSIONS AND RESEARCH PROSPECTS

During the last forty years it has been possible to open a wide debate on the meaning and the interpretation of rock paintings. Nougier (1985) underlined the functional role of the pictorial act, speaking of propitiatory hunting art. Laming-Emperaire (1962) and Leroi-Gourhan (1965) tried to understand which system sustained the graphic translation of the ideological concepts that, according to the authors, were expressed in the pictorial compositions of a cave. Lewis-Williams (2002) argued that some Upper Palaeolithic human groups practised a form of shamanism. On the other hand, mobiliary art has remained on the edge of this debate, as the majority of the findings, taken from non stratigraphic excavations, is

without correct archaeological documentation. The Gönnersdorf deposit in north Germany (Bosinski 1990) and the Enlène cave in Ariège (Clottes 1999) are among the rare sites that have yielded mobiliary art objects with a stratigraphic context. Abbot Breuil's hypothesis, which was later repeated by Lorblanchet (1995), gave to mobiliary art a function similar to that of rock paintings or in other words of representing “mobile wall sanctuaries”. Differently Conkey (1980) argued that the sites, well endowed with painted or engraved plaquettes, represent seasonal aggregation sites, where hunter-gatherers, scattered all over the region met and in this way created a complex system of communication. A ritual placing of the painted stones has been recognised at the Dalmeri Rockshelter site. The large anthropomorph RD211 had an important position inside this stone pattern and it certainly had a central ideological function (Dalmeri *et al.* 2005, 2006; Dalmeri e Neri 2008). The *corpus* of the archaeological data allows us to hypothesise that the Epi-gravettian human groups had conceived a sacred space, limited by the placing of painted stones characterised by


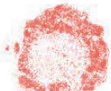













TIPOLOGIA RAFFIGURAZIONI NON REALISTICHE (SCHEMATICHE) (n° 25)							
cerchio con bande rosse	anello ovale	banda curva	rettangolo centrato	rettangolo incompleto	figura quadrangolare	freccia	composizione triangoli
							
n. 1	n. 4	n. 2	n. 1	n. 1	n. 1	n. 2	n. 1
figura fitomorfa	figura stelliforme	composizione bande parallele	composizione 2 bande curve	composizione bassorilievo	incisioni + banda in ocra	incisioni sub-parallele con ocra	
							
n. 1	n. 2	n. 1	n. 1	n. 1	n. 1	n. 1	(4 indt.)

Fig. 13 - Typologies of the unrealistic figures: schematics or signs.

Fig. 13 - Tipologia delle raffigurazioni non realistiche (schematiche o segni).










PIETRE CON RAFFIGURAZIONI NON REALISTICHE (SCHEMATICHE) (n° 21)								
intera con figurazione schematica	frammento con figurazione schematica	figura centrale	figura non centrale	figura su superficie concava	figura su superficie convessa	figura su superficie piana	marchio su faccia opposta	pietra capovolta
								
n. 11	n. 10	n. 15 (1 indt.)	n. 5	n. 3 (1 indt.)	n. 1	n. 16	n. 5	n. 15

Fig. 14 - Stones with unrealistic figures.

Fig. 14 - Pietre con raffigurazioni non realistiche.

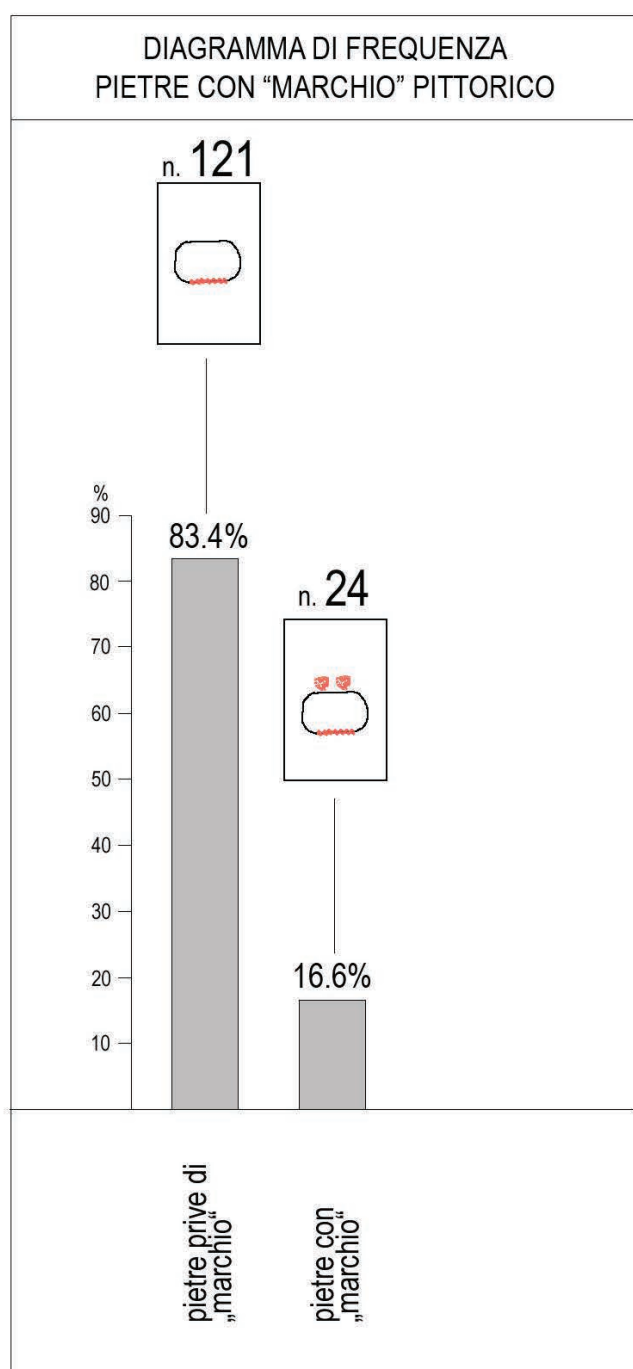


Fig. 15 - Frequency of "ochre mark" stones.
Fig. 15 - Frequenza delle pietre con "marchio pittorico".

a clear technical-stylistic unity. Up to today it has been possible to recognise only a few actions which were probably an integral part of a more complex ritual: the choice and the selection of a stone from the breccia at the site, the painting of the stone and its positioning with the decorated face downwards. The physical piling of the stones ("concentration nucleus") indicates the repeating of the ritual gesture and suggests that the turning over

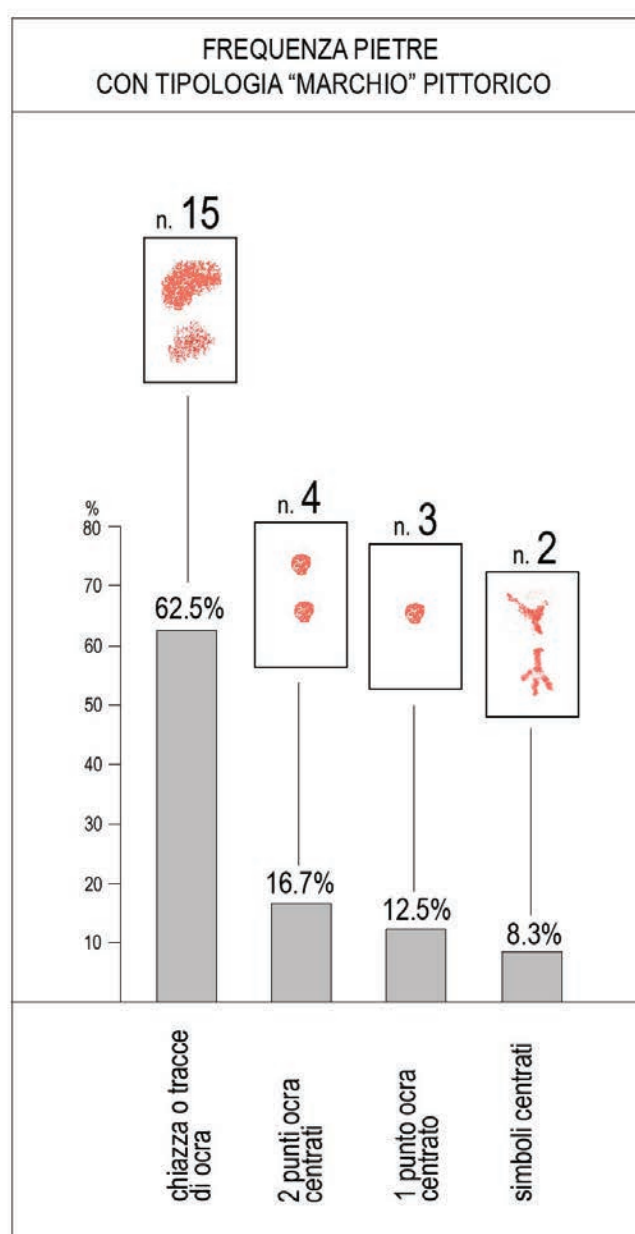


Fig. 16 - Typology and frequency of "ochre mark" on the opposite side of the painted face.
Fig. 16 - Tipologia e frequenza del "marchio pittorico" presente sulla faccia opposta delle pietre.

and the resulting hiding of the picture were an integral part of the rite. Some stones show small identification marks on the visible face and confirm this hypothesis. In this context the large human figure RD 211, perhaps male, that seems to have a central role inside the pattern of painted stones, is particularly important. This interpretation derives from the following considerations: the dimensions of the painting are notably bigger than all the others, the hieratic posture of the figure and the placing on top of an artificial pile of calcareous blocks so that it was higher than the other painted stones. This is confirmed by the fact that this stone, even though face

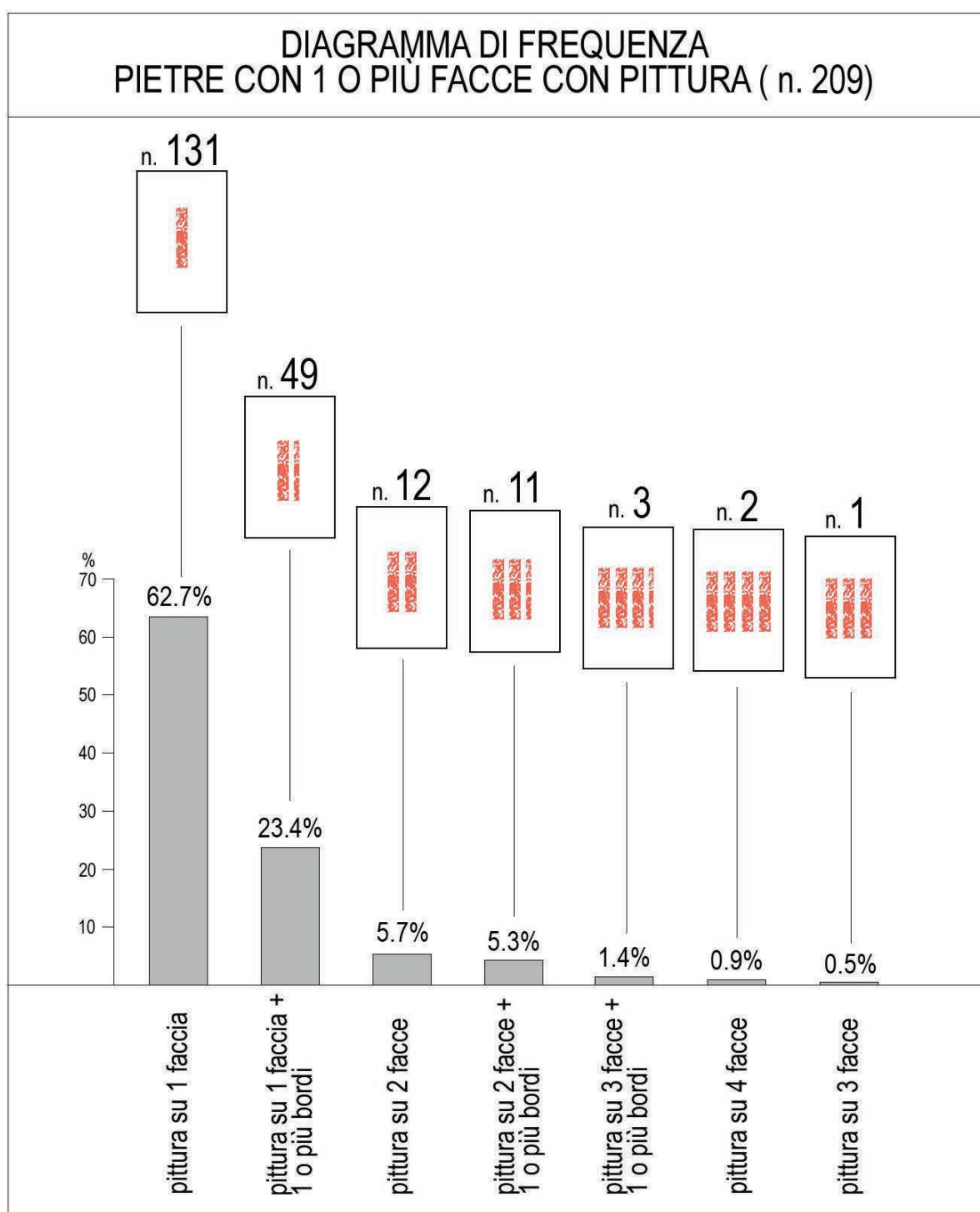


Fig. 17 - Frequency of stones with one or more faces painted.

Fig. 17 - Frequenze delle pietre con una o più facce decorate con pittura.

down, was still visible, unlike the others, also in the later dwelling phases when the dwelling structure was being reused. This suggests that the RD 211 painting represented a reference point also for those who used the site during the phases 14-26b and 26c and that this relationship remained unchanged up to the abandonment of the site. According to our interpretation this original

pictorial expression documents a spatial transcription of a complex ideological concept. A human being seems to have played a central role in this representation, even though the significance is still not clear to us. There are no elements on which to base a theory that the placing of the stone RD 211 was aimed at honouring an individual present in the collective memory or in a myth. It

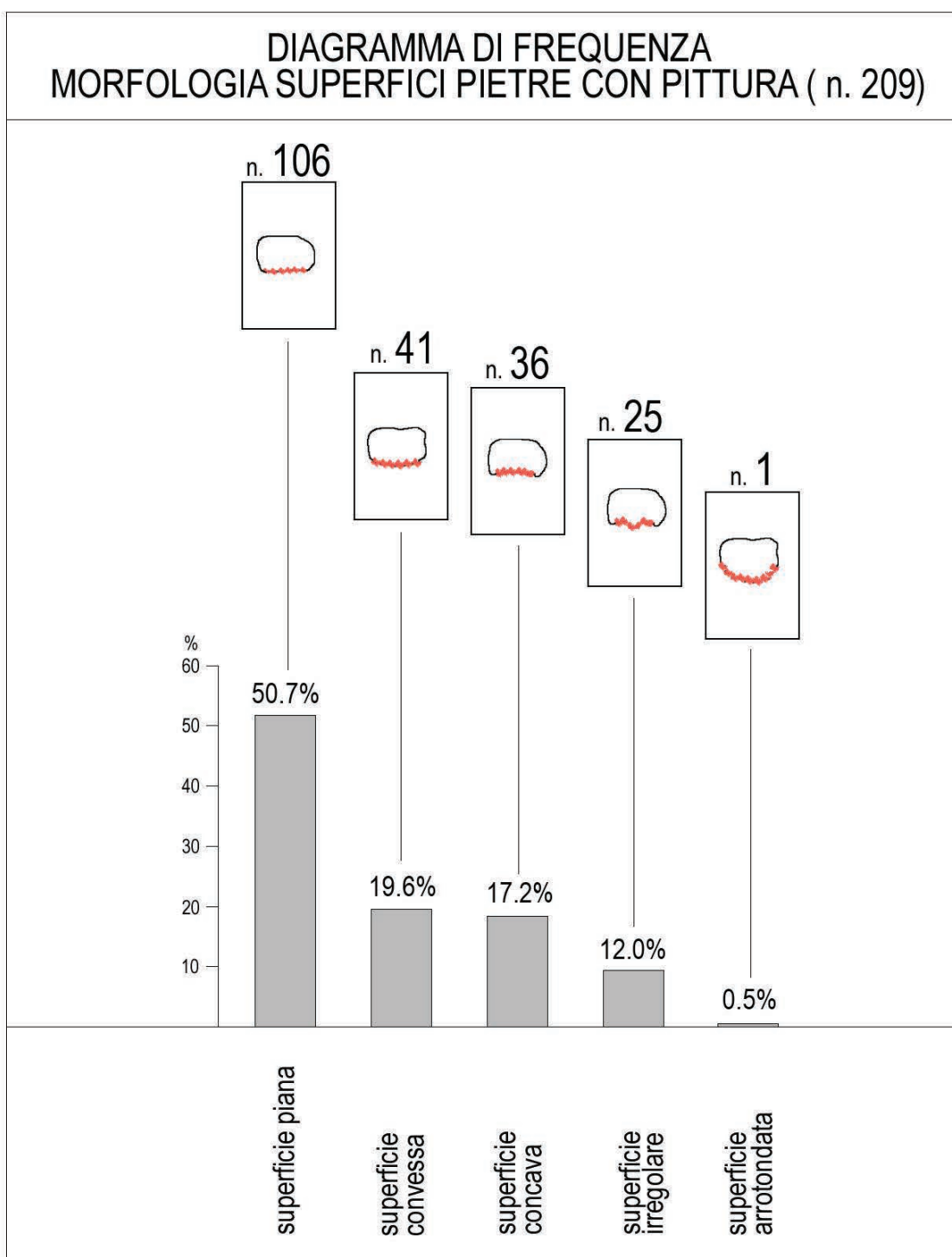


Fig. 18 - Frequency and various morphologies of the painted surfaces.
Fig. 18 - Frequenze e varie morfologie delle superfici dipinte.

also could have been of an individual who belonged to the same human group that painted and positioned the stones. It is essential to once again underline the stylistic affinity between the Dalmeri Rockshelter stones and the art of the Epigravettian hunters who settled the Villabruna Rockshelter site in Val Cismon (Bertola 2007, Broglio & Dalmeri 2005). Both of these sites are situated in

the same region. Two of the 5 ochre painted stones found in the Villabruna Rockshelter show stylistic similarities to the Dalmeri Rockshelter paintings.

We emphasize the compositional similarity between the stone n. 2 of the Villabruna Rockshelter, which preserves an elaborate “hyperanthropomorphic” motif, and the RD 82 stone of Dalmeri Rockshelter. If at the Villa-

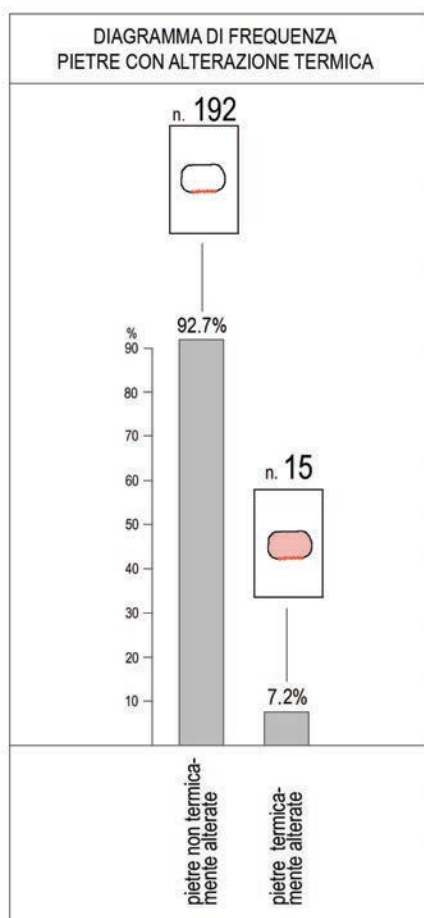


Fig. 19 - Frequency of the stones with heat alteration.
Fig. 19 - Frequenza delle pietre dipinte alterate da calore.

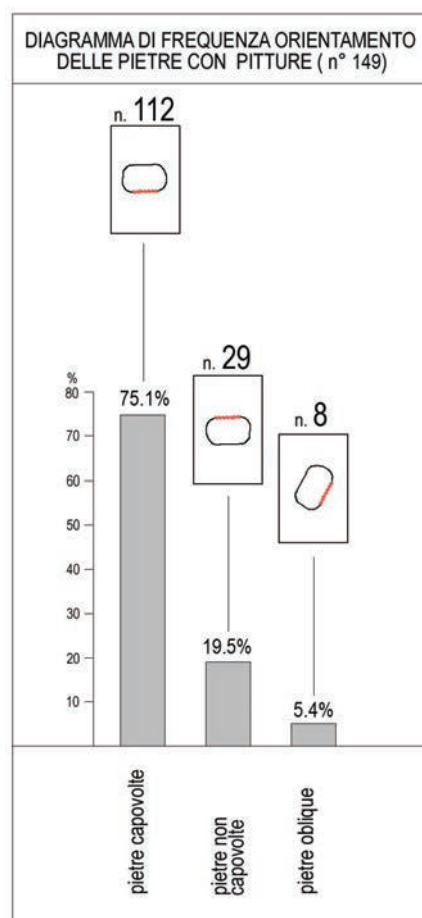


Fig. 20 - Frequency of the stones found upside down.
Fig. 20 - Frequenza delle pietre rinvenute in posizione capovolta.

PIETRE DIPINTE DI RIPARO DALMERI ABACO DELLE DIMENSIONI PIÙ FREQUENTI

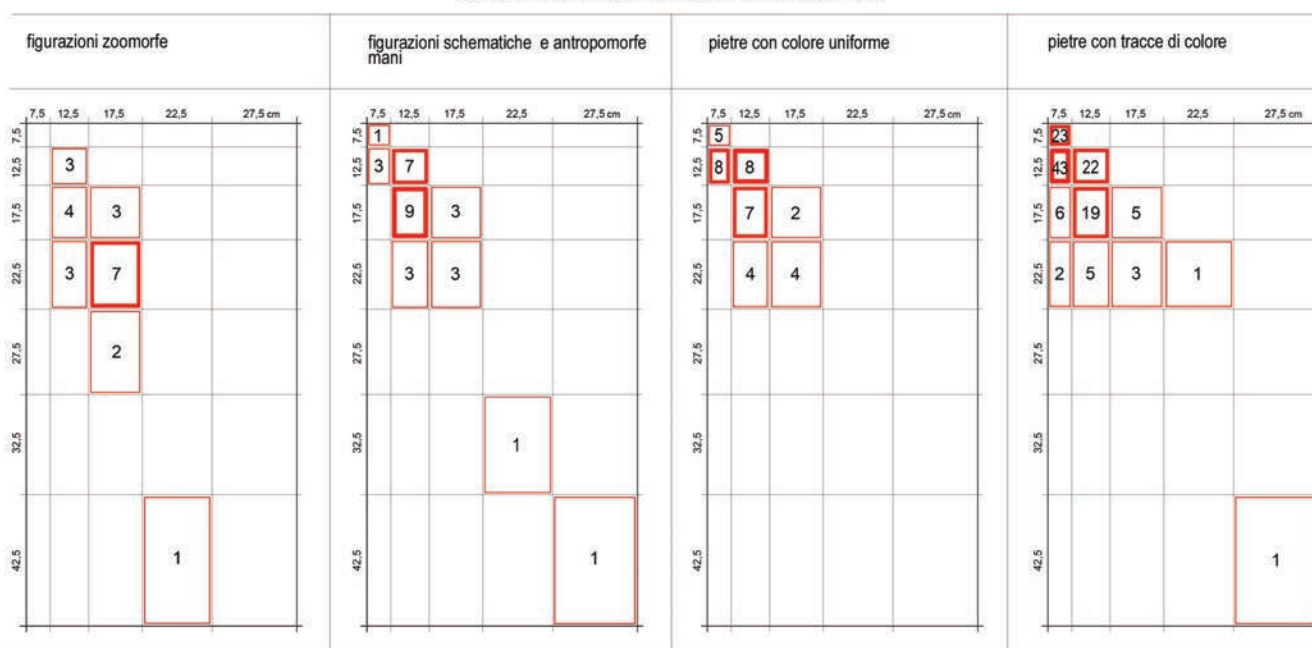


Fig. 21 - Most frequent dimensional of the calcareous supports, according to the main identified pictorial categories.
Fig. 21 - Dimensioni più frequenti del supporto calcareo secondo le principali categorie pittoriche riconosciute.

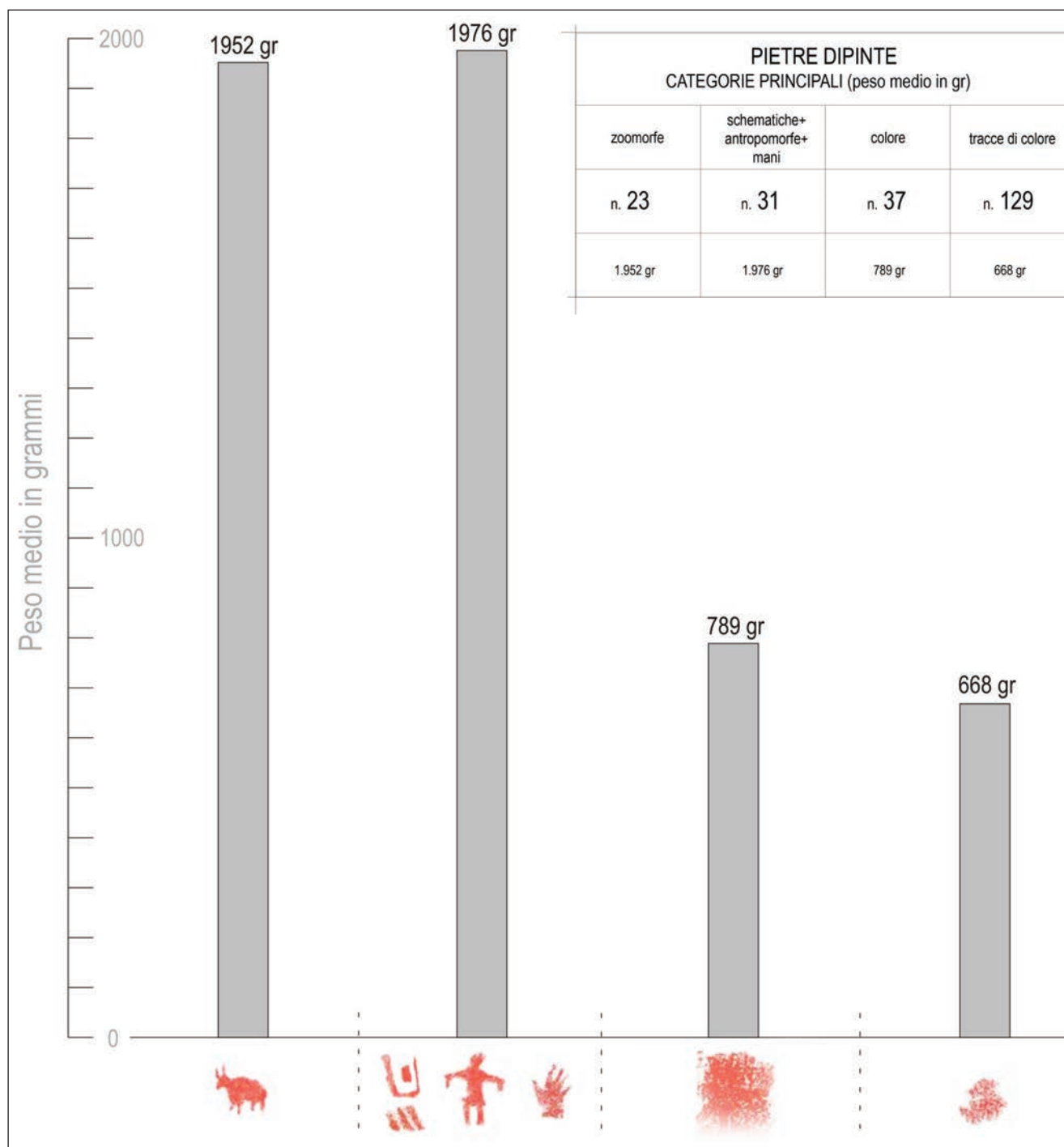


Fig. 22 - Average weight in grams, in connection with the four main pictorial categories.

Fig. 22 - *Peso medio in grammi in relazione alle quattro categorie pittoriche principali.*

bruna Rockshelter the archaeological record suggests that the hunters placed the painted stones in order to honour a burial, at the Dalmeri Rockshelter the interpretative hypothesis is not yet well drawn. The development of the stratigraphic excavations towards the external part of the shelter, which has not yet been investigated, could provide new interpretative data. In particular we will focus on the study of the “concentration nucleus” of the painted stones

and on the intentional deposits of the pits, which are probably of a ritual origin.

The continuation of the interdisciplinary researches will be particularly aimed at well defining the chronological and functional relationship between the phase of deposition of the painted stones and the following phases of the dwelling surfaces 26b-14 and 26c

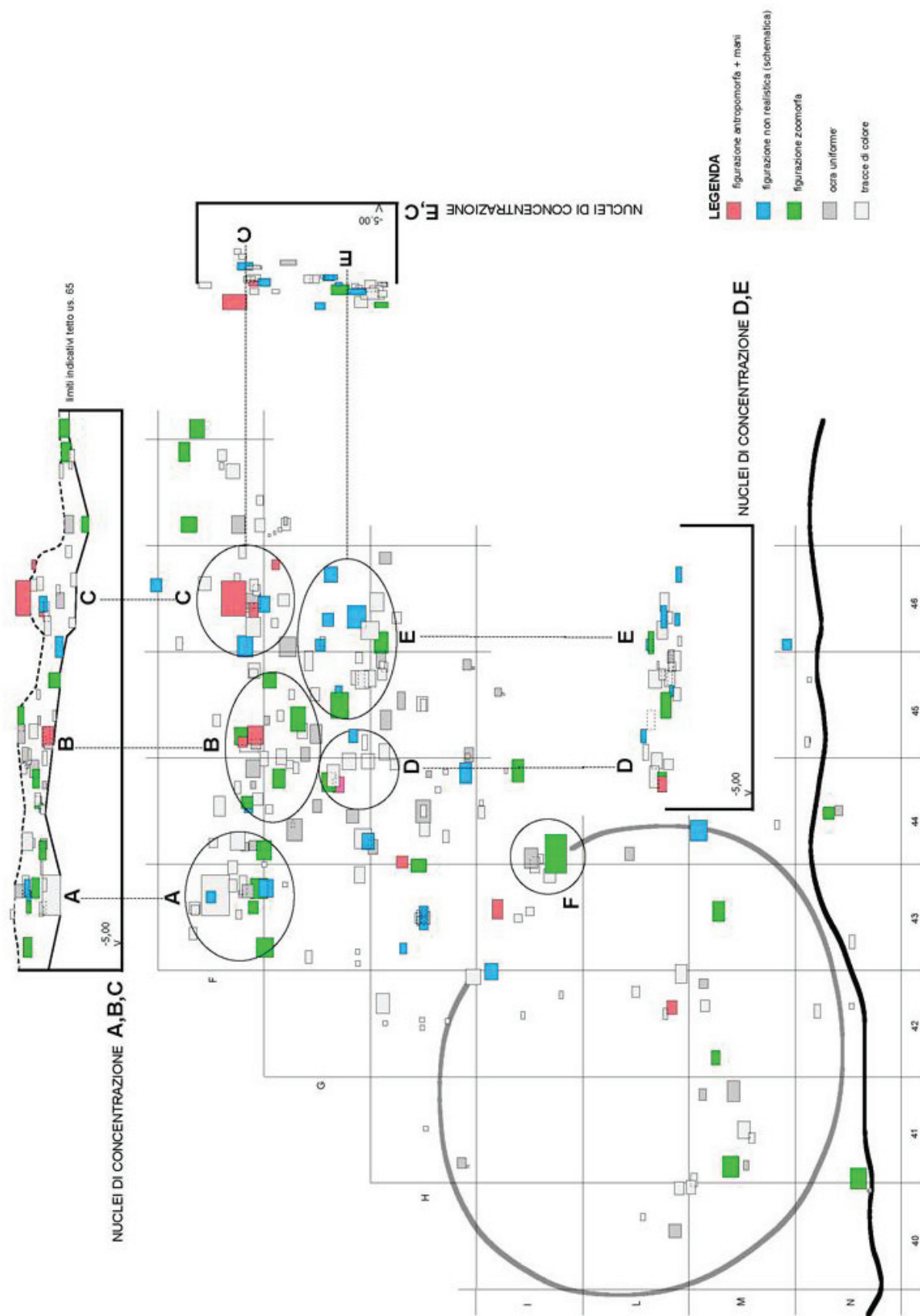


Fig. 23 - Location of the painted stones distinguished by pictorial typology (graphic elaboration K. e N. Kompatscher).
 Fig. 23 - Modello di organizzazione delle pietre dipinte nello spazio, distinte per tipologia pittorica. Si identificano sei nuclei di concentrazione di pietre decorate con pittura in ocra (elab. graf. K. e N. Kompatscher).

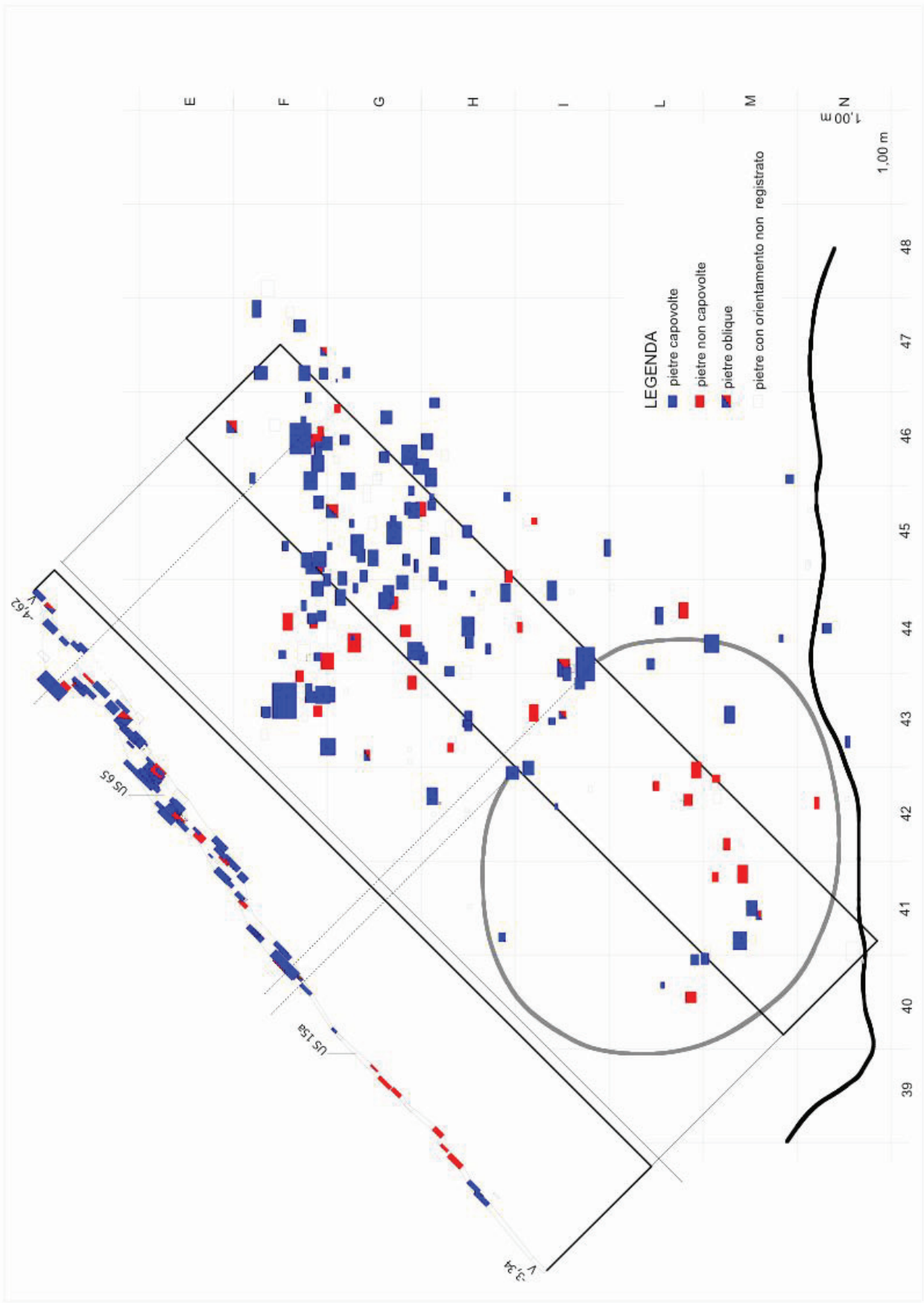


Fig. 24 - Location of the painted stones, with the indication of the painted faces position (graphic elaboration K. e N. Kompatscher).
Fig. 24 - Modello di organizzazione delle pietre dipinte nello spazio, con indicato l'orientamento della faccia dipinta al momento del ritrovamento (elab. graf. K. e N. Kompatscher).

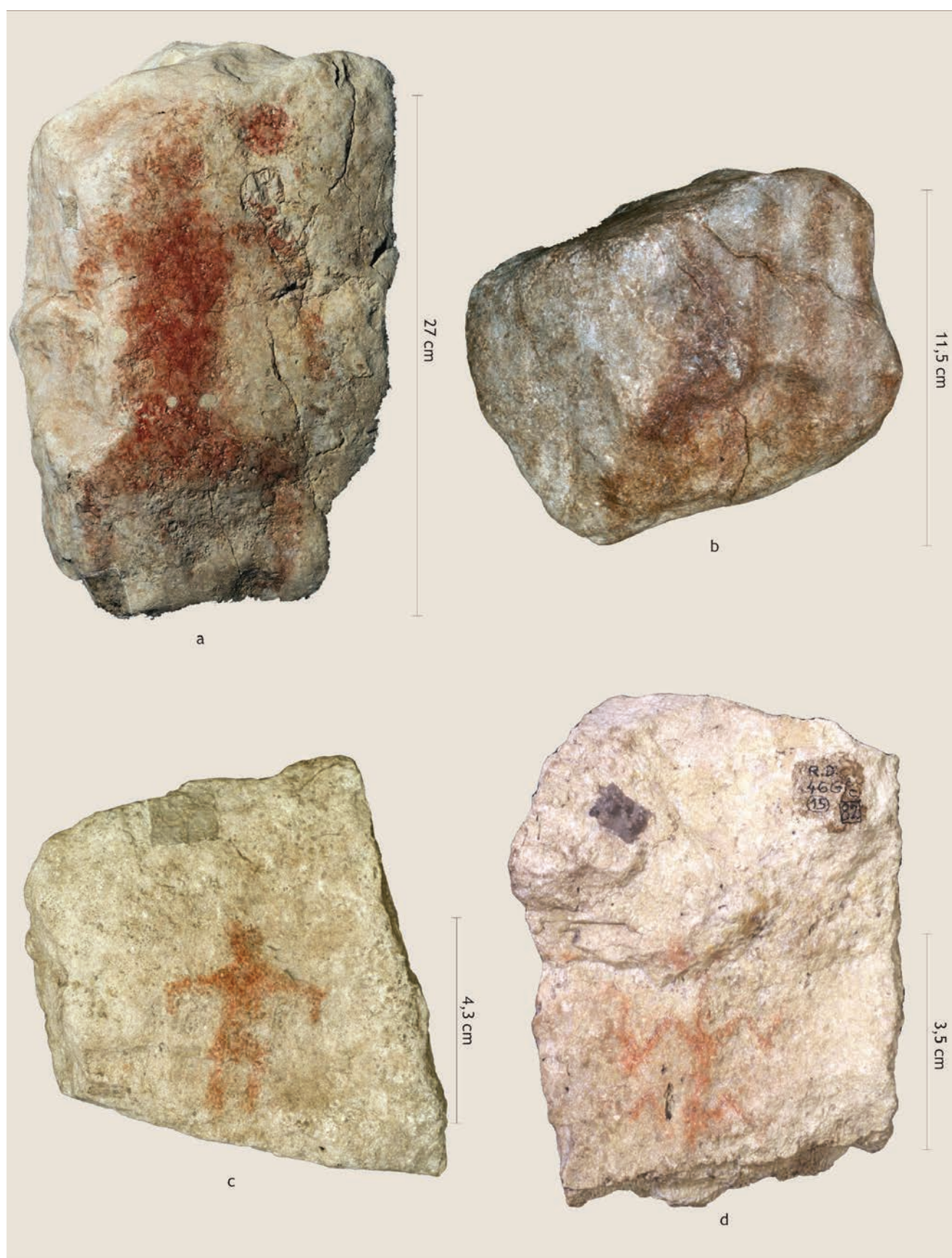


Fig. 25 - Dalmeri rockshelter. Anthropomorphic figures.

Fig. 25 - Riparo Dalmeri. Figurazioni antropomorfe.

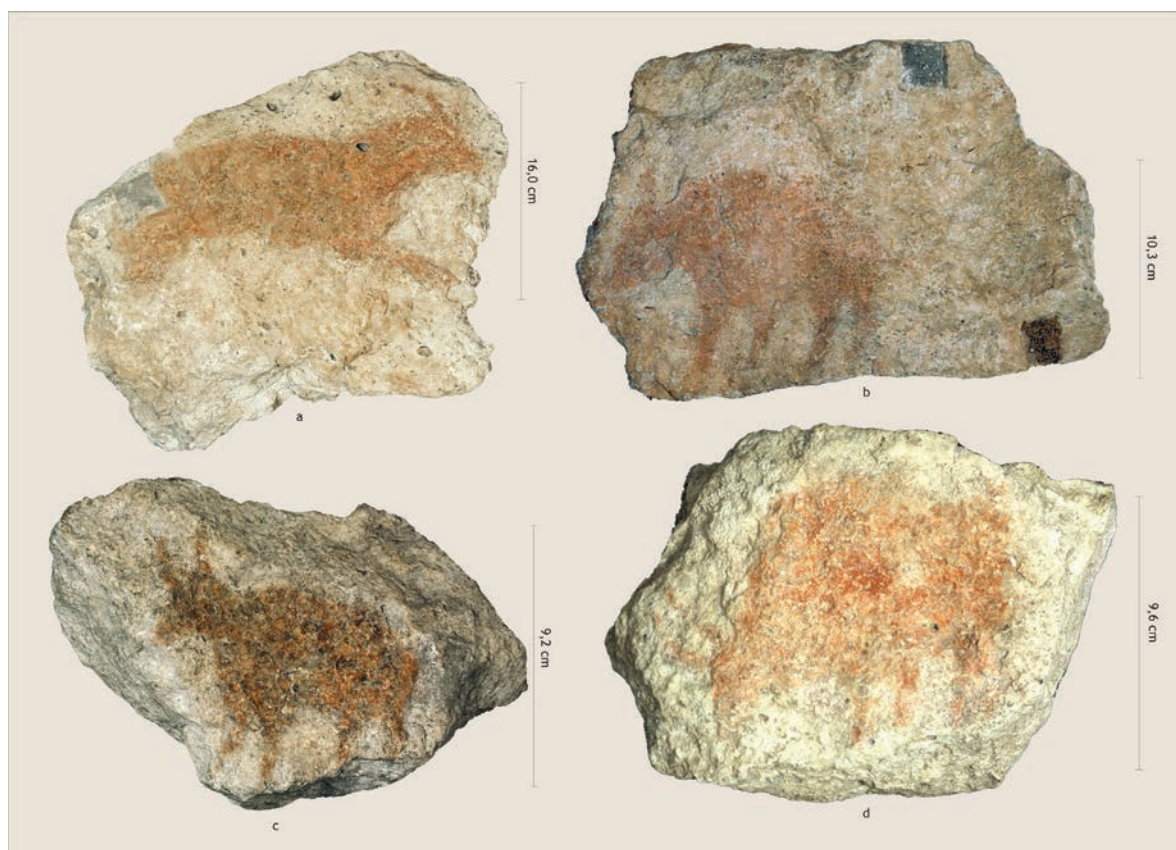


Fig. 26 - Dalmeri rockshelter. Zoomorphic figures.

Fig. 26 - Riparo Dalmeri. Raffigurazioni zoomorfe.

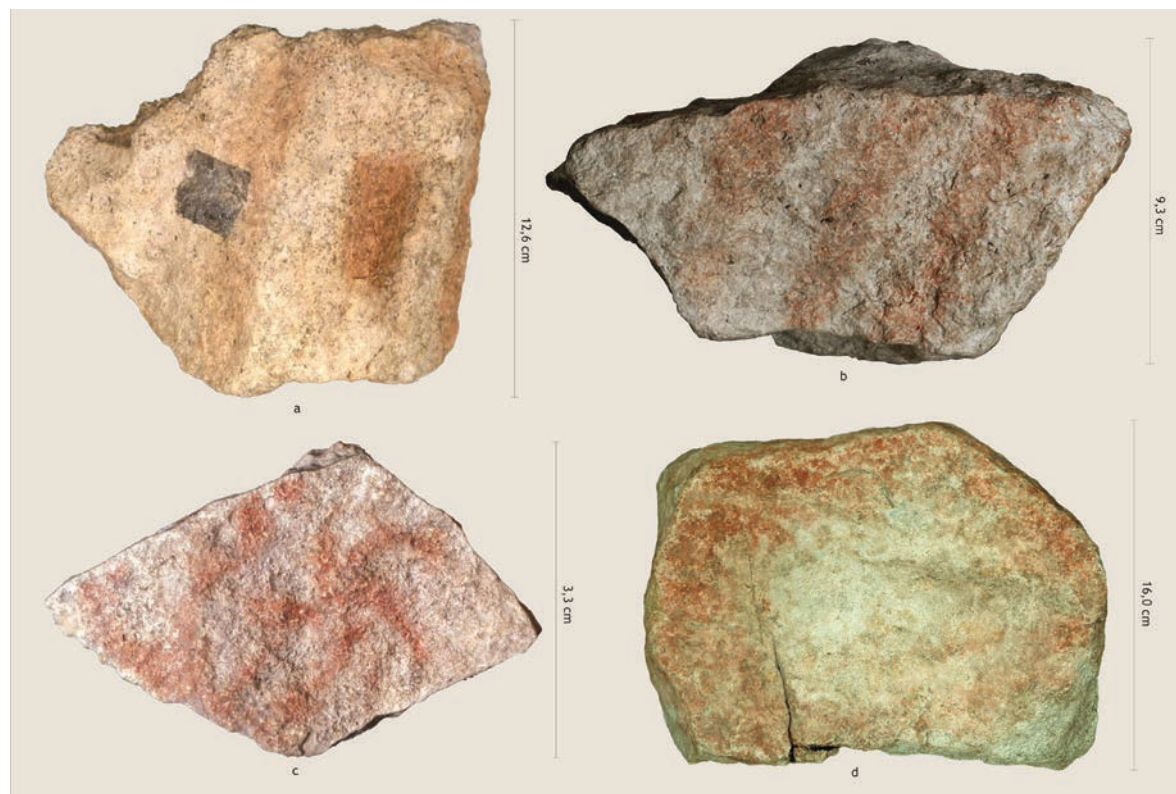


Fig. 27 - Dalmeri rockshelter. Unrealistic figures: schematics or signs.

Fig. 27 - Riparo Dalmeri. Rappresentazioni non realistiche: schematiche o segni.

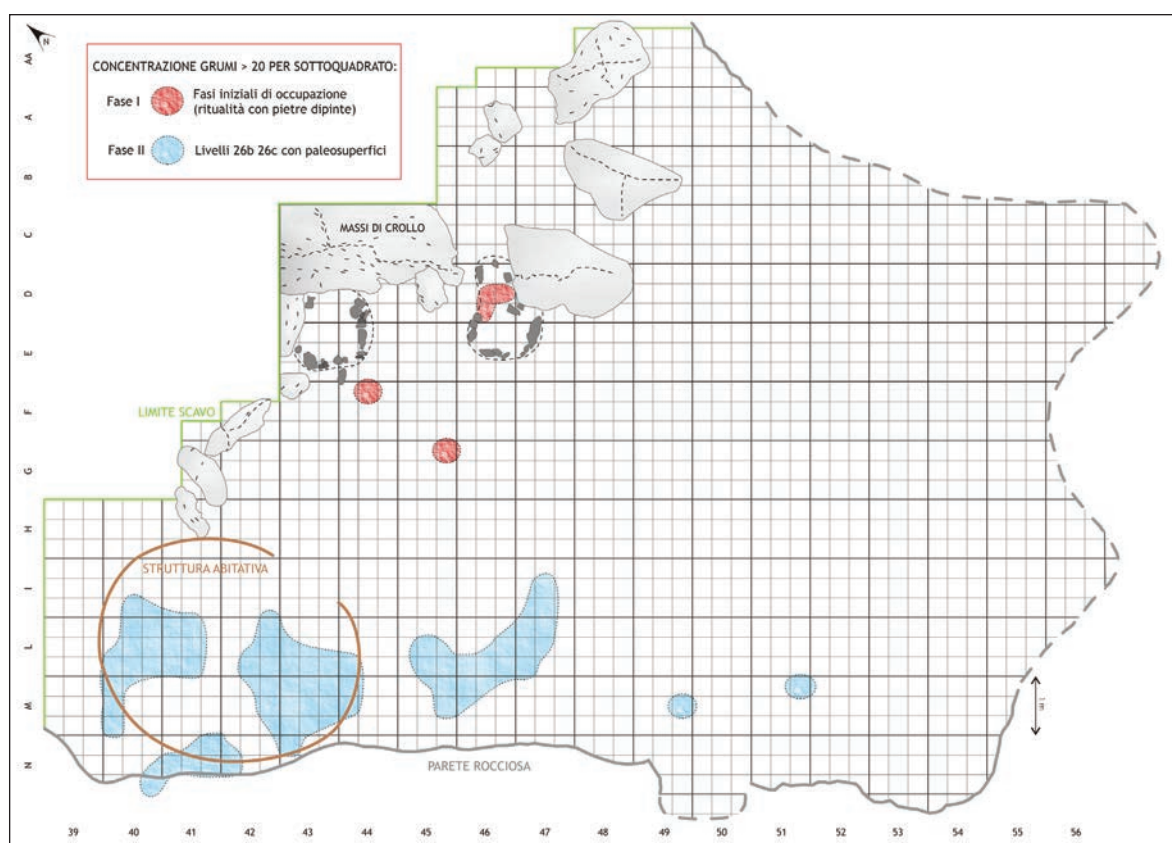


Fig. 28 - Location of red ochre lumps.

Fig. 28 - Distribuzione areale dei grumi di ocre rossa.

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