

# Preistoria Alpina ISSN 0393-0157



homepage: http://www.muse.it/it/Editoria-Muse/Preistoria-alpina © 2016 MUSE - Museo delle Scienze, Trento, Italia

## **Article**

# Mesolithic frequentation at Cividate Camuno - Via Palazzo (Brescia - Italy)

Fabio Martini<sup>1,2</sup>, Lapo Baglioni<sup>2\*</sup>, Franco Magri, Niccolò Mazzucco<sup>2</sup>, Raffaella Poggiani Keller<sup>3</sup>

- <sup>1</sup> Dipartimento di Storia, Archeologia, Geografia, Arte e Spettacolo (SAGAS) Università degli Studi di Firenze, Italy
- <sup>2</sup> Museo e Istituto Fiorentino di Preistoria, via S. Egidio 21, 50122 Firenze, Italy
- <sup>3</sup> Soprintendenza per i Beni archeologici della Lombardia, via E. De Amicis 11, 20123 Milano, Italy

#### **Key words**

- Mesolithic
- Sauveterrian
- Italian pre-Alpine region
- lithic industry
- use-wear analysis

#### Parole chiave

- Mesolitico
- Sauveterriano
- area prealpina
- industria litica
- analisi delle tracce d'uso
- \* Corresponding author: e-mail: lapobaglioni@tiscali.it

# Summary

Researches carried out between 1987 and 1995 during the restoration of a Roman domus in Via Palazzo, in the old town centre of Cividate Camuno, in Valle Camonica (Brescia - Italy), discovered the presence of underlying prehistoric levels dating back to the Upper Palaeolithic, Mesolithic, Middle-Late Neolithic and Bell Beaker culture. The authors present the results of the typological study and use-wear analysis of the Sauveterrian lithic assemblage (SU 282).

## Riassunto

Le indagini archeologiche condotte tra il 1987 e il 1995 contestualmente ai lavori di restauro di una domus romana in Via Palazzo nel centro storico di Cividate Camuno, in Valle Camonica (Brescia), hanno messo in luce una importante sequenza stratigrafica che comprende livelli del Paleolitico superiore, Mesolitico, Neolitico medio-finale ed Eneolitico (Cultura del Vaso Campaniforme). Gli Autori presentano i risultati dello studio tipologico e quello sulle tracce d'uso compiuti sull'industria litica proveniente dal livello di frequentazione del Mesolitico di facies sauveterriana (US 282).

Redazione: Giampaolo Dalmeri

pdf: http://www.muse.it/it/Editoria-Muse/Preistoria-Alpina/Pagine/PA/PA\_48-2016.aspx

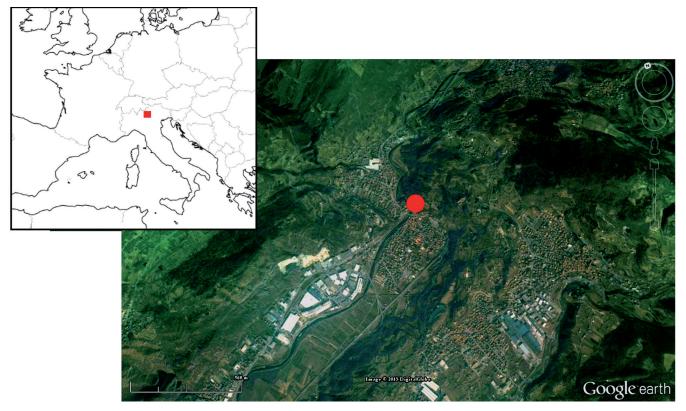


Fig. 1 - Geographical framework of the Cividate Camuno site. Satellite photo from Google Earth. / Localizzazione geografica del sito di Cividate Camuno. Foto satellitare da Google Earth.



Fig. 2 - Cividate Camuno. General view of the excavation area (photo Soprintendenza per i Beni archeologici della Lombardia). / Veduta generale dell'area di scavo (foto Soprintendenza per i Beni archeologici della Lombardia).

## Introduction

The Mesolithic settlement of Cividate Camuno (middle Valle Camonica - Brescia), came to light in 1987 during investigations carried out at the same time as the restoration of a Roman domus in Via Palazzo, the historic centre of Cividate Camuno (Fig. 1). The site is located near the left bank of the river Oglio, at the base of a cliff which stands as an isolated rock in the plain (Fig. 2). It is a valley bottom site (as the not so far Cemmo site, see Martini et al. this volume) which adds itself to the contemporary evidence found in neighbouring mountain areas (see Paolo Biagi's research, Biagi et al. 1994). Archaeological research has revealed different levels of human presence: Upper Palaeolithic and Mesolithic phases, a Middle-Late Neolithic phase and a Copper Age level, that of the Bell Beaker culture. The excavation was directed by the Soprintendenza Archeologica della Lombardia in three campaigns: 1988, 1992 and 1995 (Poggiani Keller 1990, 1996, 1999, 2003). We mention the presence of a Palaeolithic structure (5.60 m diameter) dated to 13,805 ± 440 BP (Baglioni & Martini 2009).

In 1992 a Mesolithic level of frequentation (SU 282) was investigated (Fig. 3), south of the Palaeolithic structure. The level, extending over a sub-triangular area of 5 m² (Fig. 4), did not show clear structural elements and has been partly compromised by Historical Age structures. The associated faunal remains were quite scarce (Fusco, 1990). The radiometric chronology: 8,820  $\pm$  112 BP (GX-18843 AMS/1993, Geo. Lab. Krueger Int., Cambridge, Massachusetts), 8,235-7,612 cal BC (2  $\sigma$ ).

# The lithic industry

The lithic industry includes 1,245 elements, among which 310 retouched tools (313 Laplace's primary types), 27 cores,

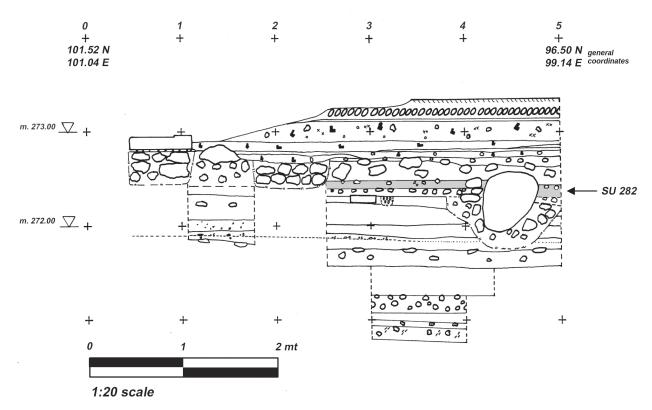


Fig. 3 - Cividate Camuno. Stratigraphy with the Mesolithic layer - SU 282 (drawing Soprintendenza per i Beni archeologici della Lombardia). / Stratigrafia del deposito con il livello mesolitico - US 282 (disegno Soprintendenza per i Beni archeologici della Lombardia).

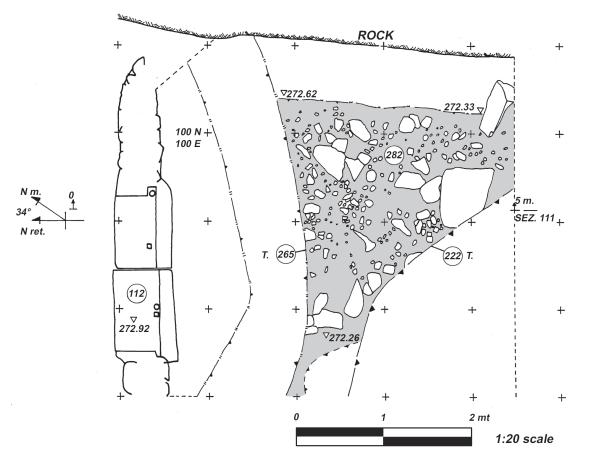


Fig. 4 - Planimetry of the Mesolithic layer - SU 282 (drawing Soprintendenza per i Beni archeologici della Lombardia). / Planimetria del livello mesolitico - US 282 (disegno Soprintendenza per i Beni archeologici della Lombardia).

603 un-retouched pieces and 305 microburins<sup>7</sup>. It shows structural and techno-morphological characteristics related to the Northern Mesolithic-Sauveterrian facies complexes, with elements connected to other groups of the Middle-Recent Sauveterrian phase and peculiarities which are described here below.

#### Typological analysis

*Burins*: structurally not important (Tab. 1), they are characterized by unelaborated subtypes (Fig. 5, 1).

End-Scrapers: are few, but rank third in the total industry. They have mostly short and large morphologies (G3 and G4 sensu Laplace 1964; X and XI classes sensu Broglio & Kozlowski 1983) (Fig. 5, 2 and 4-5), also with convergent edges at the base; we note the presence of one ogival hyper-microlithic example (XVI class sensu Broglio & Kozlowski 1983) (Fig. 5, 3). The roof-shaped, shoulder or nose-ended scraper morphologies, characteristic of the Sauveterrian Alpine aspects, are absent. Micro and hyper-microlithic sizes are prevalent.

Truncations: there is a high incidence of Truncations (these artefacts represent the abrupt retouched tools), with a prevalence of oblique types made on flakes or bladelets; sizes are very small (Fig. 6, 50-60). Hyper-microlithic, carefully made truncations characterized by regular, sub-triangular or sub-quadrangular shapes are significant (Fig. 6, 53-57). They should be considered as armature types. We note among the oblique truncations a few specimens of large elements that could be considered as armatures (truncation/point sensu Broglio & Kozlowski 1983) (Fig. 6, 50-52).

Backed Points: they are obtained from hypermicro- or micro-bladelets and occasionally from flakes (Fig. 6, 1-13). The totally backed type prevails, with bilateral subtypes (Fig. 6, 4-13) more numerous than unilateral ones (Fig. 6, 1-3). The long bipoint or monopoint cfr. Sauveterre, narrow or very narrow (widths between 2,7 and 3,9 mm) is predominant (Fig. 6, 4-5, 8-12). There are also triangular-shaped, small-sized elements, with large bases (Fig. 6, 6-7).

Backed Blade: these are rare specimens, all with deep retouch (LD2 sensu Laplace 1964). They have a very diversified morphology, with sub-parallel or convergent edges, either wide or narrow. A common feature is the partial retouch.

Backed and Truncated Tools: they consist largely of examples with obtuse truncation (DT4 sensu Laplace 1964) and convergent edges/triangular morphology (scalene), with only one backed, regular or irregular shape (Fig. 6, 14-18).

Geometrics: the group is characterized by hypermicrolithic triangular armatures (Fig. 6, 26-49), primarily scalenes (27 cases) (Fig. 6, 26-38) and secondarily isosceles (13 cases) (Fig. 6, 39-49. Among the scalenes the long form is more numerous than the short form, and the long form with long base prevails; only one element has 3 retouched edges (Fig. 6, 38). Among the isosceles the short form prevails; only one element has 3 retouched edges (Fig. 6, 49). Irrelevant is the number of crescents (short and long) (Fig. 6, 19-22), with the second edge retouched, and trapezoidal segments, all short (Fig. 6, 23-25).

Substratum: within the Substratum sensu Laplace, 1964 which is structurally important, the flake scrapers prevail, often partially and marginally retouched. There are some hyper-microlithic elements with semi-backed retouch (Fig. 5, 12-13). The blade scrapers have mostly marginal retouch (Fig. 5, 6-7). Usually the morphology is asymmetric or with subparallel edges; exceptional are the more regular or symmetrical morphologies. Among the Abrupts, structurally unimportant appear the hyper-microlithic armatures (length <10 mm), in quadrangular regular shape, with

Tab. 1 - Cividate Camuno SU 282. Typological Structure (sensu Laplace 1964). / US 282. Struttura tipologica (sensu Laplace 1964).

Typological groups	nr.	%
Burins	6	1.91
End-scrapers	12	3.83
Abrupt retouched tools	168	53.7
Truncations	58	18.65
Borers	8	2.55
Backed points	26	8.3
Backed blades	5	1.59
Backed truncated tools	7	2.23
Geometrics	48	15.33
Indeterminate baked tools	16	5.11
Flat retouched tools	1	0.31
Substratum	114	36.43
Points	1	0.31
Blade scrapers	24	7.66
Flake scrapers	34	10.86
Indeterminated scrapers	5	1.59
Abrupts	22	7.02
Denticulates	28	8.94
Splintered tools	6	1.91
Fr.Simple mode	3	0.95
Fr. Abrupt mode	3	0.95
Total	313	100%

transversal retouch, rectilinear and also oblique (Fig. 6, 61-65). About the *Denticulates* (Fig. 5, 8-11), slightly significant, we note a partial and rough denticulation with less invasive retouch (Fig. 5, 8).

### Use-Wear analysis

A detailed use-wear analysis of the lithic assemblage from the Mesolithic layer (SU 282) of the Cividate Camuno site has been carried out; this study had the objective of assessing the type of productive activities carried out at the site and, in turn, contribute to the understanding of how the different typological groups were employed². A total of 552 elements has been selected for the analysis, including all the unretouched and retouched tools, except *debris*, indeterminate waste materials and heavily burned materials. For what concerns microburins, a sample of 29 implements has been included. The remaining part of the sample is composed of 47 core trimming elements, 9 burin spalls, 263 flakes, 177 bladelets and 27 cores or core-fragments. As a result of the microscopic observation, a totality of 117 used tools has been identified, corresponding to 118 active zones. A resume of the results is provided in Tab. 2 and Tab. 3.

The outcome of the analysis indicates that all the inferred activities are related to hunting and game slaughtering and processing. Projectile tools represent the largest group among the used tools

<sup>1</sup> The technological study and the analysis of microburins and cores are still in progress.

The analysis has been carried out at the Laboratorio di Archeometria of the Museo e Istituto Fiorentino di Preistoria, following the standard procedure of the use-wear analysis (see Marreiros et al. 2014). A Nikon SMZ-2T stereoscopic microscope (5x-40x) has been employed for the analysis of the macro-traces, while a reflected-light microscope Olympus BX51 (50x-500x) has been used for the observation of the microscopic features.

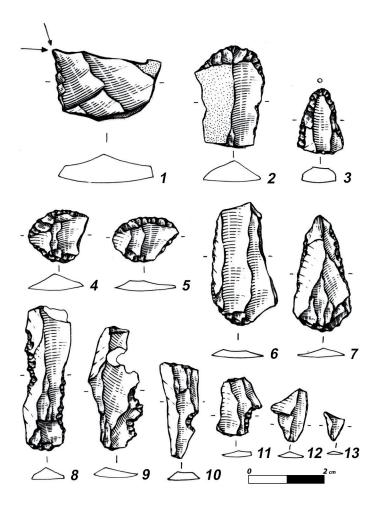


Fig. 5 - Cividate Camuno, SU 282. 1 Burin; 2-5 End-scrapers; 6-7 Blade scrapers; 8-11 Denticulates; 12-13 Flake scrapers (drawings 1:1 by L. Baglioni). / US 282. 1 Bulino; 2-5 Grattatoi; 6-7 Raschiatoi lunghi; 8-11 Denticulati; 12-13 Raschiatoi corti (disegni di L. Baglioni, scala 1:1).

(44,9%), followed by tools used for hide-processing (16,1%) and tools used butchering (12,2%), while traces associated to bone/ antler (4,2%) and vegetal materials (1,7%) are more scarcely represented. It must be remarked that butchering tools should be considered under-represented in the analysed assemblage, being the preservation of their use-wears more complicated; indeed, a relevant part of the indeterminate materials (20,3%) can be probably associated with butchering processes. The other way around, crafting activities are almost absent in the assemblage; the few traces associated with the work of bone/antler, wood or dry-hide are scarcely developed, probably produced by brief maintenance tasks and not of prolonged and intense craft activities.

From a techno-typological point of view, there are several aspects that should be remarked. Among the backed tools, which amount to 102 elements, *Backed Points* (18 cases; 15,3%) and *Geometrics* (16 case; 13,6%) are the types more systematically used as projectiles (see Tab. 3). However, the ratio of used implements is probably higher than the value here expressed; experimentally it has been proved that only a reduced percentage (between 20% - 40%) of projectile tips develop diagnostic impact marks (Fischer *et al.* 1984; Domingo 2005; Lo Vetro *et al.* 2009; Pétillon *et al.* 2011). Impact marks are represented by tiny bending/step, spin-off and/ or burin-like fractures, often in reciprocal association on the same tool. Fracture dimensions averagely oscillate between 1-2 mm, but considering the hyper-microlithic dimensions of the tools it appe-

ars a reasonable wear pattern. When impact traces are present, their directionality and distribution indicates that both geometric and backed tools were mainly used as tips, probably hafted on the extremity of the arrow shaft (7, a-b). Also several truncations (T1 and T3 sensu Laplace 1964) have been used as projectile tools, especially the hyper-microlithic elements. Nevertheless, in this case they are mainly employed as side elements, probably hafted parallel to the shaft (Fig. 7, c). This data seems to suggest the use of weapons with different design, possibly including composite projectiles.

Finally, for what concerns the other typological classes, blade and flake scrapers are mainly used for butchering (Fig. 7, h-1); denticulates (Fig.6, g) and burins are mainly used for working hard indeterminate and bone/antler materials (in the case of the burins the active zone is not the dihedral angle but the newly formed dorsal ridge) (Fig. 7, f), while end-scrapers are associated with the scraping of hide (Fig. 7, d-e), in particular for the first stages of hide working, such as the skinning and fleshing phases, related to the removing of animal fat, muscles and all adipose tissues.

In conclusion, gathered data points out toward an interpretation of Cividate Camuno as a temporary or secondary camp where the main activities were represented by the production and maintenance of the weaponry and the first processing of games; as a result it could be hypothesized the existence of intermediate sites between the so-called residential sites and the hunting stations or



Fig. 6 - Cividate Camuno, SU 282. 1-13 Backed point; 14-18 Truncated backed tools; 19-25 Segments; 26-49 Triangular armatures; 50-60 Truncations; 61-65 Abrupts (drawings 1:1 by L. Baglioni). / US 282. 1-13 Punte a dorso; 14-18 Dorsi troncati; 19-25 Segmenti; 26-49 Triangoli; 50-60 Troncature; 61-65 Erti indifferenziati (disegni di L. Baglioni, scala 1:1).

**Tab. 2** - Count ( $\Sigma$ ) and relative percentages (%) of active zones (AUAs) for each typological groups. Typological categories from Laplace (1964). / Somma ( $\Sigma$ ) e relative percentuali (%) del numero di zone attive (AUAs) per ciascun gruppo tipologico (sensu Laplace 1964).

Typological groups	AUAs (Σ)	AUAs (%)
Abrupt retouched tools	58	49.2
Backed truncated tools	4	3.4
Backed points	16	13.6
Backed blades	1	0.8
Geometrics	18	15.3
Indeterminate baked tools	4	3.4
Truncations	15	12.7
Abrupts	3	2.5
Burins	4	3.4
Borers	5	4.2
Denticulates	4	3.4
Splintered tools	1	0.8
End-scrapers	10	8.5
Blade scrapers	12	10.2
Flake scrapers	9	7.6
Unretouched tools	12	10.2
Total	118	100%

**Tab. 3** - Count ( $\Sigma$ ) and relative percentages (%) of active zones (AUAs) for each class of worked material. BU: butchering actvities; HA: hard animal materials (bone/antler); HI: hide; HI-DR: dry hide; HI-FR: fresh hide; HI-INDET: hide indeterminated; INDET: indeterminate material of various hardness; HH: hard indeterminate; MM: medium hardness; SF: Soft indeterminate; PY: projectile tool; VG: vegetal material (plant/wood). / Somma ( $\Sigma$ ) e relative percentuali (%) del numero di zone attive (AUAs) per ciascuna classe di materiali lavorati. BU: Tracce di macellazione; HA: Materiali duri di origine animale (ossa/corno); HI: pelle; HI-DR: pelle secca; HI-FR: pelle fresca; HI-INDET: pelle in stato indeterminato; INDET: materiali indeterminati di diversa durezza; HH: materiali duri indeterminati; MM: materiali di media durezza; SF: materiali poco resistenti; PY: tracce d'impatto; VG: materiali di origine vegetale (piante/legno).

Activities	AUAs (Σ)	AUAs (%)
BU	15	12.7
HA	5	4.2
HI	19	16.1
HI-DR	3	2.5
HI-FR	10	8.5
HI-INDET	6	5.1
INDET	24	20.3
HH	15	12.7
MM	5	4.2
SF	4	3.4
PY	53	44.9
VG	2	1.7
Total	118	100%

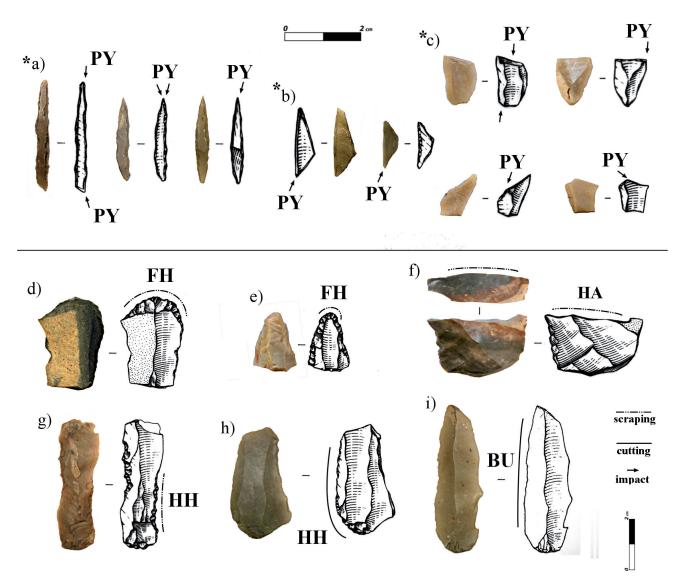


Fig. 7 - Cividate Camuno, SU 282. Selection of tools with use-wear traces. Microliths: a) Backed points; b) Geometrics; c) Truncations. Common tools: d-e) End-scrapers; f) Burin; g) Denticulate; h-i) Blade scrapers. PY: Projectile impact traces; FH: Fresh hide working traces; HA: Hard animal traces (bone/antler); HH: Hard indeterminate material traces; BU: Butchering traces. / US 282. Selezione di strumenti con tracce d'usura. Armature: a) Punte a dorso; b) Geometrici; c) Troncature. Strumenti comuni: d-e) Grattatoi; f) Bulini; g) Denticolati; h-i) Raschiatoi su lama. PY: Tracce da impatto; FH: Pelle fresca; HA: Materiali duri di origine animale (ossa/corno); HH: Materiali duri indeterminati; BU: Tracce di macellazione.

encampments (Broglio & Lanzinger 1990; Broglio 1995). Still, the scarcity of Early Mesolithic sites in the Lombardia region makes it difficult to prove such an idea. Future works, including a broader sample of comparison sites, will explore this possibility.

#### **Discussion and conclusions**

The lithic group of Cividate Camuno fits among the Northern Mesolithic-Sauveterrian facies complexes, with elements connected to other lithic complexes of the Middle-Recent Sauveterrian phase and some peculiarities. Nevertheless, a chrono-cultural attribution on a structural basis, should considers as well the lithic series of the north-eastern Alps from different types of environments (valley bottoms, low altitudes, hills, mountain streams).

The Cividate Camuno's lithic industry reveals original structural and stylistic peculiarities (sensu Laplace 1964) (Tab.1):

• very low percentage of End-Scrapers (3,8%);

- high incidence of Truncations(18,6%);
- high incidence of Substratum (36,4%);
- very low percentage of armatures (32,6%);
- original elaborations of hyper-microlithic armatures on flakes (truncations and abrupt retouched tools).

The most important element of the structural level is the significance of Cividate Camuno's *Substratum* in relation to armatures: this parameter allows us to emphasize the originality of our site with respect to the Northern Sauveterrian; it shares this originality for the moment with Galgenbühel/Dos De La Forca (Wierer 2007, 2008), another valley bottom site located at 225 m a.s.l., as well as with the AC5 level of Romagnano Loc (Broglio & Kozlowski 1983). This aspect, for the moment, has no plausible explanation.

The careful analysis of the structural setting using not only primary and secondary types of Laplace but also typological parameters of Broglio and Kozlowski (1983), allows us to highlight the original elements of the Cividate Camuno site which, combined with stylistic and quantitative parameters, let us insert the

industry into a productive Sauveterrian system, in the Middle or Recent Sauveterrian phases, as illustrated by North-Eastern Italian sequences.

The analysis of the individual types of microliths (sensu Broglio & Kozlowski 1983) allows us to make some observations:

- the low index of triangular armatures (in relation to the total number of microliths), around 44%, could refer to the moment of development of these microliths that at Romagnano Loc concludes the Middle Sauveterrian sequence (AC4 AC1 layers). We note analogies with Gaban Shelter (Kozlowski & Dalmeri 2000), FC+30 layer (51,6%) and FB+29 layer (57,5%). These percentages deviate clearly from what we know about the early phase of the Middle Sauveterrian (AC8/9 AC5 layers in Romagnano Loc: percentages between 21,6% for AC8/9 layers and 35,3% for AC5 layer);
- the relationship between short and long scalene triangles in favour of the long (0,6%) may indicate the late stage of the Middle Sauveterrian in concomitance with the beginning of the lengthening process of scalene microliths (Romagnano Loc, AC6 layer: 0,6% AC5 layer: 0,7%); this process will reach full development in the Recent phase (Romagnano Loc, AC1 layer: 0,3%; Gaban Shelter, FC+30 layer: 0,1% FB+29 layer: 0,1%);
- the extremely low percentage of long scalene triangles with short bases (2,2%) indicates the early Middle Sauveterrian, before the beginning of the evolution of these armatures that characterize at Romagnano Loc the evolved Middle Sauveterrian (AC6 - AC5 layers) with maximum development in the Recent phase (AC1 layer: 51,6%);
- the low percentage of the triangular armatures with three retouched edges (4,4%) seems completely anomalous for the Middle Sauveterrian. These have however a low average percentage in the Middle Sauveterrian (starting with Romagnano Loc, AC8/9 layers: 7,7%) and high percentages in the Recent phase (Romagnano Loc, AC2 layer: 37,7% AC1 layer: 46,8%; Gaban Shelter, FC+30 layer: 34,8% FB+29 layer: 38,8%);
- the low incidence of bilateral backed points (13,7%) may indicate the Middle-Recent Sauveterrian passage (Romagnano Loc, AC3 Layer: 12%; Gaban Shelter, FC+30 layer: 12,5% - FB+29 layer: 6,3%);
- the high development of long bilateral backed points (86%) compared to the short ones (14,3%) indicates the Middle-Recent Sauveterrian passage (Romagnano Loc AC4 layer: 89,4% versus 10,6% AC3 layer: 86,4% versus 13,6%); in the Recent Sauveterrian we note a decrease in the long ones (Romagnano Loc, AC1 and AC2 layers and Gaban Shelter, FB+29 layer);
- the low percentage of crescents (5,9%) refers to the Middle-Recent Sauveterrian passage (Romagnano Loc, AC2 layer: 7,3% AC1 layer: 6,9%).

The structural and stylistic data do not resolve the problem of chrono-cultural attribution between the Middle and Recent Sauveterrian. According to the chronological sequences of Romagnano Loc and Gaban Shelter, the radiometric date of Cividate Camuno is coherent with the attribution to the transition between the two Sauveterrian phases<sup>3</sup>.

### References

- Baglioni L. & Martini F., 2009 Un contesto coevo. La capanna del Paleolitico superiore di Cividate Camuno-Via Palazzo. In: Poggiani Keller R. (ed.), *La valle delle incisioni. 1909-2009 cento anni di scoperte 1979-2009 trenta anni con l'UNESCO in Valle Camonica*. Brescia: 197-202.
- Biagi P., Nisbet R. & Scaife R., 1994 Man and the vegetation in the Southern Alps: the Valcamonica-Valtrompia-Valsabbia watershed (Northern Italy). Highland zone exploitaion in Southern Europe. *Monografie di Natura Bresciana*, 20: 133-142.
- Broglio A., 1995 Mountain sites in the context of the North-East Italian upper Palaeolithic and Mesolithic. *Preistoria Alpina*, 28(1): 293-310.
- Broglio A. & Kozlowski S., 1983 Tipologia ed evoluzione delle industrie mesolitiche di Romagnano III. *Preistoria Alpina*, 19: 93-148
- Broglio A. & Lanzinger M., 1990 Considerazioni sulla distribuzione dei siti tra la fine del Paleolitico superiore e l'inizio del Neolitico nell'Italia nord-orientale. *Monografie di Natura Bresciana*, 13: 53-69
- Domingo R., 2005 La funcionalidad de los microlitos geométricos. Bases experimentales para su estudio. *Monografías Arqueológicas*, 41. Zaragoza: Universidad de Zaragoza.
- Fischer A., Hansen P. & Rasmussen P., 1984 Macro and Micro Wear Traces on Lithic Projectile Points. *Journal of Danish Archaeology*, 3(1): 19-46.
- Fusco V., 1990 Cividate Camuno (BS), via Palazzo. Resti di insediamento paleo-mesolitico e neolitico. I resti faunistici. *NSAL*, 1988-89: 28-30.
- Kozlowski S.K. & Dalmeri G., 2000 Ribaro Gaban: the Mesolithic layers. *Preistoria Alpina*, 36: 3-42.
- Laplace G., 1964 Essai de typologie systématique. *Annali Università di Ferrara*, supplemento 2, vol. I: 1-85.
- Lo Vetro D., Martini F. & Mazzucco N., 2009 Analisi funzionale di armature geometriche da contesti olocenici. Origini, XXXI: 7-39.
- Marreiros J., Mazzucco N. &Gibaja J.F., 2014 Macro and Micro Evidences from the Past: The State of the Art of Archaeological Use-Wear Studies. In: Marreiros J., Gibaja J.F. &Bicho N. (eds.), Use-Wear and Residue Analysis in Archaeology. *Manuals in Archaeological Method, Theory and Technique*. Switzerland, Springer International Publishing: 5-22.
- Martini F., Lo Vetro D., Timpanelli L., Magri F., Poggiani Keller R., this volume Mesolithic findings from the area of the engraved boulders at Cemmo (Lombardia, Italia): 89-92.
- Pétillon J.M., Bignon O., Bodu P., Cattelain P., Debout G., Langlais M., Laroulandie V., Plisson H. & Valentin B., 2011 Hard core and cutting edge: experimental manufacture and use of Magdalenian composite projectile tips. *Journal of Archaeological Science*, 38(6): 1266-1283.
- Poggiani Keller R., 1990 Cividate Camuno (BS), via Palazzo. Resti di insediamento paleo-mesolitico e neolitico. *NSAL*, (1988-89): 27-29.
- Poggiani Keller R., 1996 Cividate Camuno (BS), via Palazzo. Deposito mesolitico sotto i livelli romani della domus. *NSAL* (1994): 36-37.
- Poggiani Keller R., 1999 Resti insediativi del Paleolitico Superiore e del Mesolitico nel centro urbano di Cividate Camuno in Valcamonica (Brescia-Italia). In: Della Casa P. (ed.)., Prehistoric alpine environment, society and economy. Papers of the International colloquium "PAESE '97", Zurich 1997. UPA, vol. 55: 119-121.
- Poggiani Keller R., 2003 Contesti di recente indagine nella Lombardia prealpina, tra tardo Neolitico e prima età del Rame. In: Ferrari A. & Visentini P. (eds.), Atti del Convegno "Il declino del mondo neolitico. Ricerche in Italia centro-settentrionale fra

<sup>3</sup> R. Poggiani Keller organized and coordinated the archaeological excavation with the collaboration of F. Magri, L. Baglioni and F. Martini analyzed the lithic industry and N. Mazzucco is the author of the use-wear analysis.

- aspetti peninsulari, occidentali e nord-alpini", Pordenone 5-7 aprile 2001, *Quaderni del Museo Archeologico del Friuli Occidentale*, 4: 271-289.
- Wierer U., 2007 Studio tipologico dell'industria sauveterriana di Galgenbühel/Dos de la Forca (Bolzano). In: Hohenstein U.T. (ed.), Atti del I Convegno Nazionale degli studenti di Antropologia, Preistoria e Protostoria. *Annali dell'Università di Ferrara*.
- Sez. Museologia, Ferrara 2006: 63-66.
- Wierer U., 2008 Which blanks for which tools? techno-typological analyses of the Sauveterrian industry at Galgenbühel (Italy). In: papers of XV Congres UISPP "Space and Time: Which Diachronies, Which Synchronies, Which Scales? / Typology vs. Technology", Lisboa 2006, vol. 21, Sections C64 and C65. BAR International Series 1831: 197-207.