

The Varese Prealps: new data on the Neolithic and the Copper Age in Northern Italy

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ABSTRACT - The first dwelling structure of Pizzo di Bodio (Early Neolithic- Isolino Group) yielded human remains dating to 6060±80 BP. At Pizzo di Bodio, phase I of the Square Mouth Vase Culture (geometric-linear style) was recognized as well as phase II that can now be identified with the "Isolino facies".

Key words: Pizzo di Bodio, Chalcolithic, Lombardia, Early Neolithic, Square Mouth Pottery

Parole chiave: Pizzo di Bodio, Calcolitico, Lombardia, Neolitico antico, Vasi a Bocca Quadrata

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1. THE NEOLITHIC

As I have already underlined (BANCHIERI, 1997), the chrono-stratigraphic sequence of Pizzo di Bodio (Bodio Lomnago-VA) compared to the Isolino strata (Bertolone excavation and successive ones, i.e. GUERRESCHI, 1976-77; see GUERRESCHI *et al.*, 1990-91) that had no comparative stratigraphic sites in the north-western area up till a few years ago, clearly shows how the geographic position of the Varese Prealps played an important role in time in the interaction of elements from different places such as Liguria or the Alpine Po Plain. This cultural drift resulted in a local re-elaboration in a distribution area that certainly includes the western part of Lombardia, part of Piemonte, Ticino and Vallese.

This local re-elaboration gave rise to an enclave, as stressed by Bagolini, which maintained the preceding traditions for a longer period but was still open to connections and new cultural influences (BAGOLINI, 1990-91).

The fact that the wooden flooring of the Isolino Virginia levels, corresponds both on stratigraphical and chrono-cultural bases, to the first Neolithic stratum beneath the field level that was not disturbed by agricultural activities in the Pizzo di Bodio town area (this

layer shows evidence of the continuation of precise characteristic traditions of the preceding Early Neolithic period) has supplied a clearer picture as to the Square Mouth Vase Culture "Isolino facies" (BANCHIERI, 1997, ch.VII:6).

From 6320± 80 BP onwards (dating of the pit at the base of the first settlement of the Early Neolithic of Bodio(B5090) till 5326±180 BP (Pi38) (absolute date for the wood paving connected to the oblong dwelling structure identified at Isolino in 1957 by Bertolone immediately under a clay level: FERRARA *et al.*, 1958) the various cultural influences slowly drift into a context that still remains traditionally Early Neolithic for all this period of time. This is the case both for ceramics and for the lithic industry (BANCHIERI & BALISTA, 1994).

Therefore, this can be considered as the most macroscopically typical aspect of what Bagolini defines as enclave of Isolino, identifying an "Isolino Group" for the Early Neolithic and an "Isolino facies" for the Square Mouth Vase phase defined at present as phase II.

1.1. *Human remains from Early Neolithic settlements*

We would like to point out that from US223-326, corresponding to the first dwelling of Pizzo di

Bodio site dated 6060±50 BP (B-5088), human bones referable to a left humerus and to a right astralagus that F.Mallegni suggests as belonging to a male adult were recovered. This finding is of great importance because in North West Italy there is hardly any human bone material imputable to the Early Neolithic. I personally recall the deposition of Casalmoro (MN) in Lombardia (BIAGI & PERINI, 1979).

1.2. *The cultural facies of the Square Mouth Vases, phase I*

The first phase identified at Pizzo di Bodio in the layer corresponding to the oblong-shaped dwelling with a cobblestone patio (BANCHIERI, 1997, ch.III,VII:5), certified in previous excavations at Palude Brabbia (BERTOLONE, 1948, fig.2:2) at Desor Maresco (BANCHIERI, 1986, fig.5:11) and Bodio Centrale later on in time (BANCHIERI, 1986, fig.2:1-2), allows to verify, just like the Rivalentella (TIRABASSI, 1987), Spilamberto, Fornace Cappuccini sites, a non-stop continuity throughout the Early and Middle Neolithic, therefore changing the theory that the Square Mouth Vase Culture transmitters had drastically abandoned the traditions of the preceding populations (BAGOLINI & BIAGI, 1987:221,224).

In fact, there are graffiti (Fig.1:1-3) and engravings that are closely related to the Liguria graffiti (triangles facing each other, network) (ODETTI, 1991:127, fig.29; 1996, fig.13) but are still connected to the "geometric-linear style". It is evident that the most common shapes used for the Square Mouth Vases are clearly in the tradition of Fiorano-type Po Neolithic (Fig.1:4). However, indented forms are not unusual (Fig.1:1, 2:2) and tulip-shaped forms (Fig.2:5) are common in the first phase of the Square Mouth Vases at Arene Candide (Tinè excavations) and in layer Ib of Pollera. The fragment of a truncated cone-shaped vase decorated with dots (Fig.2:6) recalls a common shape not only of the early phase of the Arene Candide Square Mouth Vases (Tinè excavations) where dot decorations can be found in the layers with graffiti ceramics, but also in the Early Po Neolithic (Vhò). This form has not yet been found in the Varese area but is also common in Reggio Emilia (TIRABASSI, 1984, fig.7:31). The clear evidence of present day of phase I of Square Mouth Vases in the Varese Prealpine area allows to add further data for the analysis of the formation process of this phase. In the meantime, the gap has been bridged between Alba and Montano Lucino (CO) which in 1984 yielded material referable to an advanced period of this phase (BIAGI *et al.*, 1984) and is the only site that can link Piemonte to the other contemporaneous stations of Northern Italy.

1.3. *Phase II "Isolino facies"*

The "Isolino facies" was clearly identified at Pizzo di Bodio (BANCHIERI, 1997). Castelgrande of Bellinzona that presents remarkable cultural analogies with the Isolino settlement dates the strata corresponding to this period back to 5410±100 BP (B4563) (DONATI & CARAZZETTI 1987). In the light of the last considerations on the basis of the results of the Pizzo di Bodio excavations (1994-95 campaigns), the date obtained in 1958 for the floor boarding of Isolino would seem to be correct (5326±180 BP; P138) (FERRARA *et al.*, 1958; ALLEGRI *et al.*, 1987:72).

The Isolino facies, still has elements of phase I (traditional Fiorano carinate forms with high necks), but still presents an Early Neolithic substrata with characteristics typical of the Isolino group (BANCHIERI & BALISTA, 1994, fig.9:4,12-13,15,18) and also Liguria Impressed Ceramic (Fig.3:1) (BANCHIERI & BALISTA, 1994, fig.8:8-9), of the Po Neolithic (Fig.3:2) and of the Gaban Group (BANCHIERI & BALISTA, 1994, fig.8:1-2,11). At this point, even the decorative elements typical of the so called "Isolino facies" (engraved bands of intersecting triangles) (GUERRESCHI, 1976-77, ch.XCIII; BANCHIERI & BALISTA, 1994, fig.11:5) have clearly inherited the Early Neolithic style that recalls once again the Po-Alpine and also the Liguria schools (the same decorations are found on graffiti ceramics of Pollera (stratum II) (ODETTI 1991, fig.29:1).

In this phase, the meander spiral aspect is however present, even though it is less significant, for example the two pintaderas from Isolino (GUERRESCHI, 1976-77, ch.CV) and from Pizzo di Bodio (BANCHIERI & BALISTA, 1994, fig.11:7). A fragment of a decorated bowl engraved in a meander-spiral style from Pizzo di Bodio can also be included even though, unfortunately, it was not in stratum (Fig.3:10).

2. ENEOLITHIC

With regard to the Eneolithic period, Pizzo di Bodio has provided an absolute date for a hearth found along a section about fifty metres South of the Neolithic dwelling, that can be placed in an mature period of the Eneolithic, dating the relative stratum and a flint point with triangular base to 4145±90 BP (Fig.4:1) (BANCHIERI, 1997; BALISTA, 1997). In the dwelling area the strata that postdate the II phase of the Square Mouth Vases, on the basis of the information acquired up till now, were destroyed by recent works; the recovery of significant material on farmland has supplied Lagozza and Eneolithic elements (BANCHIERI & BALISTA, 1994, fig.6:1-7).

The characteristic ceramic with scales typical of the Adriatic area and rarely found in the North-West, was predominantly diffused during the mature phase of the Eneolithic (Spilamberto, 2245±95 BC; BAGOLINI & CREMONESI, 1988). Apparently it was already present in the Varese area during the initial phase of the Neolithic, as it can be found at Isolino in the strata ascribable to the Sub-Lagozza (GUERRESCHI, 1976-77:80, level 065). This is backed by the presence of this type of decoration on a Lagozza form in the station of Ponti or Cazzago (BANCHIERI, 1986, fig.18:4).

There was evidence of chopping-knives at Pizzo, Bodio Centrale, at Isolino Virginia (where there were also bell-shaped fragments) (BANCHIERI, 1986:154) and also at Angera, Lake Monate (BANCHIERI, 1988) as well as a S.Cristina-type axe from Palude Brabbia (REGAZZONI, 1881; DE MARINIS, 1992:401 and abb.2:2) clearly show the presence of the Bell-Shaped style.

We would like to call attention to a small triangular hatchet (st.106188, Fig.4:2-3) made of almost pure copper, recalling the green stone Neolithic axes, of which we supply the results of the researches carried out by the Istituto di Ricerche and Collaudi M.Masini of Rhò (X-ray dispersion Spectrometry - EDX- together with electronic microscopic scanning, as well as Gamma-ray radiograph investigation, to detect internal defects) and by the Laboratorio Gilardoni of Mandello Lario (Gilardoni radiography "GMF 208D") to assess the composition.

2.1. Investigation carried out using X-ray dispersion Spectrometry (EDX) together with electron microscopic scanning (SEM)

Acetone was used to remove the grease from the axe and to take away any contamination from organic origin after which it was then analysed using the first technique mentioned above. It was not possible to prepare the surface to determine the quantity of the composition without altering it. Therefore, only semi-quantitative information was obtained. In any case, the various investigations carried on the areas where the basic material was sufficiently "clean", allowed to determine that it was made of copper, with a purity of over 95% (probably above 99%) as there was only copper present, apart from quantities that can be measured in fractions of % (Ag and Si). Silicon, which was probably present in an oxide form, could have been present in the matrix, but it may also have derived from external contamination (earth, dust, etc.).

2.1.1. Spectrum 1

In the central part of the body of the axe there was a shiny area where the material was sufficiently

clean. The spectrum obtained (Fig.4:4) shows the presence of fluorescent K (at 8 and 8,9 KeV) and L lines (at 0,9 KeV) of copper, as well as lines of impurity due to silicon, silver, carbon and oxygen. In order to obtain a comparison, standard 99.9% pure copper was analysed and the main peaks of the two spectrums and therefore of the two materials resulted as being similar. The presence of oxygen was probably due to superficial oxides, while the carbon was a result of impurity of organic origin or of an inorganic type of carbon (carbon, carbonates, etc.). Another area of the surface of the axe supplied the same spectrum as above.

In the area of the heel there was an outcrop of an apparently shiny material and investigations showed that there was also carbon and oxygen, magnesium, aluminium, silicon, phosphorus, sulphur, chlorine, silver, potassium and calcium, as well as the primary element of copper. There were many deposits on the surface, probably not pertinent to the "body" of the axe, in that magnesium, aluminium, silicon, phosphorus, sulphur, potassium and calcium are mineral and natural earth composites, while chlorine, potassium, carbon and oxygen are present both in natural elements and on the human body (perspiration, etc.).

EDX investigation was carried out on the areas of the green deposit, surely attributable to copper salt (carbonates and oxides) and the above mentioned composites were predominant, with a high amount of oxygen due to the oxide and copper in proportion.

2.2.2. Gamma-ray radiograph analysis

The axe underwent X-ray and g-ray analyses, with the following results.

1. Gammagraphic control: the low contrast technique identified only the whole outline of the axe without missing any of the details of the profile. Nevertheless, there were no internal damages.

2. Radiographic control: It was possible to observe the thickest middle part of the body of the axe on the two X-rays carried out with the double film technique. The results confirmed the absence of internal defects. The thinner parts were clearer on the single X-ray and small defects could be seen on the cutting edge, probably caused by the thinness of the material and/or porosity (small pockets caused by the oxygen); this could be evidence of smelting. The same response was given in 1995, as a result of a radiographic exam carried out by the Laboratorio Gilardoni of Mandello Lario, with the following parameters: 159 kV- 8mA- dist. 700 mm - film D7 + lead screens, 1 min. exposition

This test confirmed that the axe was made of copper (as it represented the same radiological absorp-

tion in identical conditions as the copper specimen of the same thickness and differed from the other three specimens of bronze, gold and brass of the same thickness that underwent the same analysis. According to C. Gilardoni, the radiogram also showed that: "the piece was smelted (there were signs of casting in the middle part of one of the sides). There were no internal defects (cavities or smelting contractions)".

The Bodio axe was very similar in size and shape to those of Campépine (R. Emilia) and Stankovci (Dalmatia) and was similarly found in a secondary layer. It was uncovered at the dwelling site and as I personally observed, it supplied a stratigraphy with the presence of phases I and II (facies Isolino) of the Square Mouth Vases preceded by two periods of the Early Neolithic. The axes of Stankovci and of Campépine were found in the sites where phase II of the Square Mouth Vases was identified, but without any Eneolithic evidence (BARFIELD, 1996:66). This is another bias in the favour of the presence of metallurgy as far back as the Middle Neolithic (SKEATES, 1993:9 and fig.3; BARFIELD, 1996:66). The Quinzano axe, uncovered in a context of phase I of Square Mouth Vases is also worthy of mention (SKEATES, 1993:8).

The discovery of traces that certify the presence

of metallurgy in Square Mouth Vase contexts are less occasional. It must however be underlined that not only the Neolithic epoch but also the first Metal Ages are also documented at Pizzo di Bodio. This last Neolithic finding changes the geographic distribution of this type of artefact, moving the present limit more towards the West: the Varese Prealps. These objects were predominately found in the North-East up till now, in cultures clearly influenced by the Balkans (SKEATES, 1993).

The Varese Prealps were strongly inclined towards keeping up old traditions. These traditions endured for a long time as a base for new influences (phase I and II of the Square Mouth Vase Culture that grow in an evident Early Neolithic context; a Proto-Lagozza context, where there are Chasseane characteristics along with the Square Mouth Vase Culture elements; a Sub-Lagozza context) that could even have continued during the Eneolithic.

In the meantime, until there is stratigraphic proof and the issue regarding the areas of metal sources is thoroughly analysed, along with the technological aspects, the production, the exchanges etc., the small Bodio axe should be considered as belonging to the Eneolithic period with a shape that recalls similar types of Neolithic implements in greenstone.

SUMMARY - The town of Pizzo di Bodio (Bodio Lomnago (VA) situated near the shores of Lake Varese- Lombardia has supplied a chrono-stratigraphic sequence of the Neolithic Culture of the Varese area that can be compared both to the neighbouring Ticino and Vallese areas as well as to North Italy. There are more and more elements that help to identify the Eneolithic period. The first dwelling structure of Pizzo di Bodio (Early Neolithic- Isolino Group) yielded human remains dating to 6060±80 BP. At Pizzo di Bodio, phase I of the Square Mouth Vase Culture (geometric-linear style) was recognized as well as phase II that can now be identified with the "Isolino facies". Phase I had never been stratigraphically identified before in North-Western Italy. Therefore this is another site that can add to the little information available as to the connections between the Early and Middle Neolithic periods. Moreover, it was possible to ascribe the wooden flooring of Isolino Virginia, discovered by M. Bertolone, to phase II of the Square Mouth Vase Culture "Isolino facies". A small axe of almost pure copper, similar to the Campepine and Stankovci ones, was found on the surface at the Pizzo di Bodio dwelling. The results of the analyses carried out on the small axe are hereby supplied.

RIASSUNTO - L'abitato perisondale di Pizzo di Bodio (Bodio Lomnago (VA)-lago di Varese- Lombardia ha reso possibile una sequenza cronostatigrafica delle culture neolitiche dell'area varesina raffrontabile nell'ambito dell'Italia settentrionale oltre che del vicino Ticino e del Vallese. Cominciano per altro ad esserci più elementi per la conoscenza dell'Eneolitico. Dal primo impianto abitativo di Pizzo di Bodio (primo Neolitico-Gruppo Isolino) provengono resti umani risalenti a 6060±80 BP. A Pizzo di Bodio si è individuata oltre alla II fase v.b.q. che oggi è possibile identificare con la " facies Isolino", la I fase (stile geometrico-lineare) finora mai individuata stratigraficamente nell'ambito dell'Italia nord-occidentale. E' così che si aggiunge un altro sito dove è possibile registrare le connessioni fra Neolitico antico e medio, finora poco documentati. Inoltre si è potuto ascrivere l'impalcato dell'Isolino Virginia, messo in luce da M. Bertolone, alla II fase v.b.q. "facies Isolino". Dall'area dell'abitato di Pizzo di Bodio, in superficie, viene una piccola ascia in rame pressochè puro, simile a quelle di Campepine e Stankovci e della quale si riportano i risultati delle analisi effettuate.

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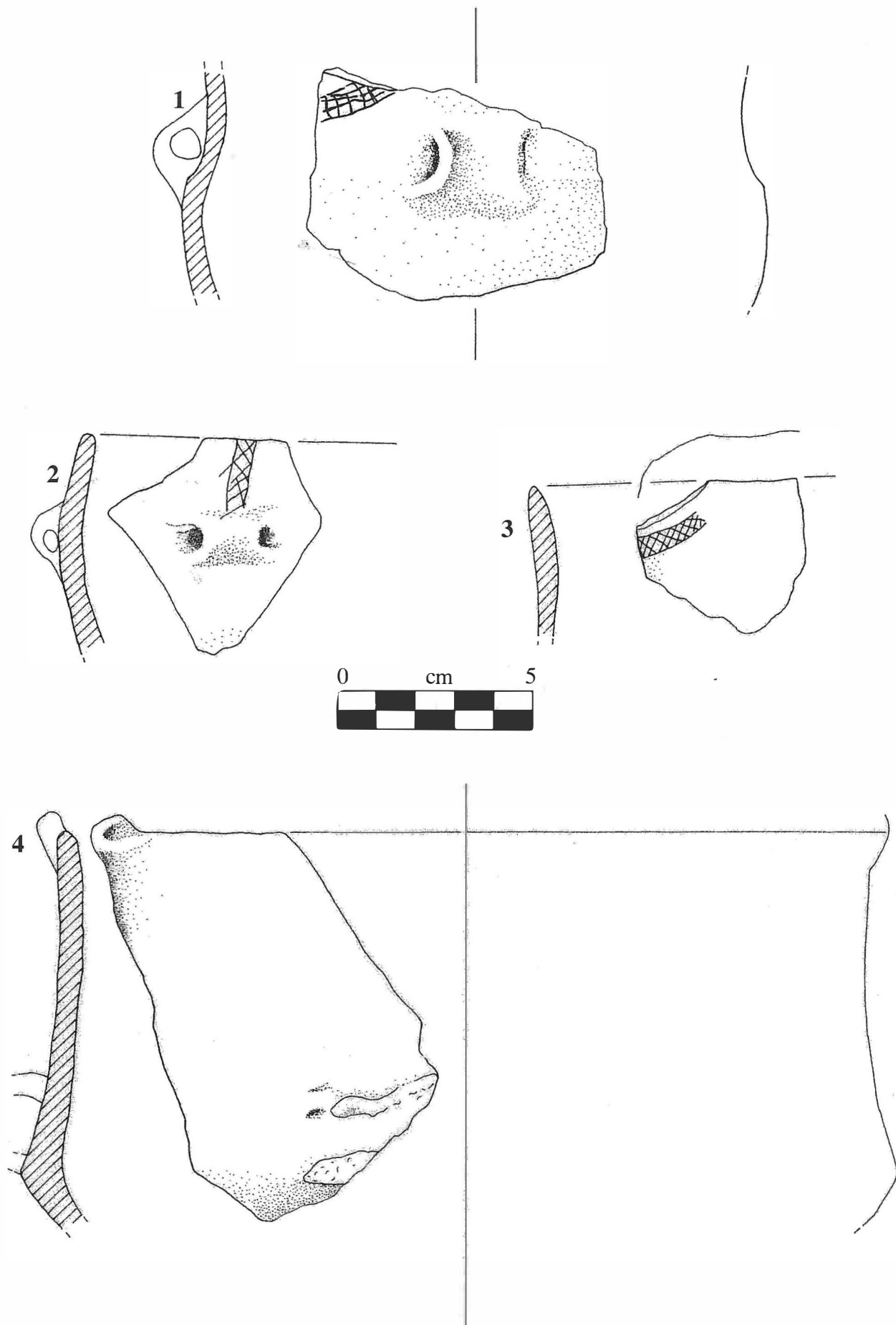


Fig. 1 - Lake Varese, Pizzo di Bodio. Ceramic elements of the Square Mouth Vase Culture (geometric-linear style), from US412. (drawing by Banchieri)

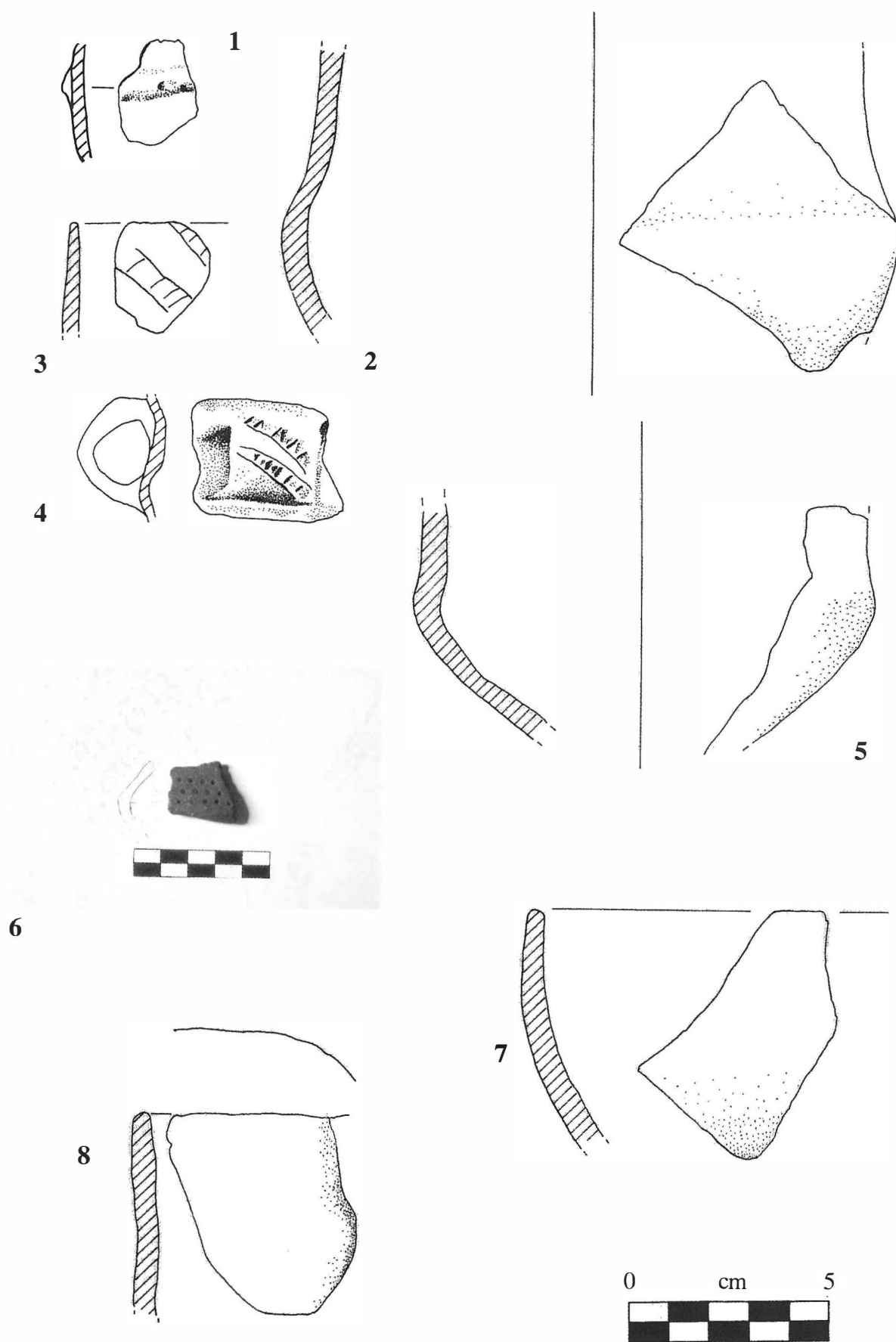


Fig. 2 - Lake Varese, Pizzo di Bodio. Square Mouth Vase Culture (geometric-linear style). Ceramic elements from US412 e 431. (drawing by Banchieri)

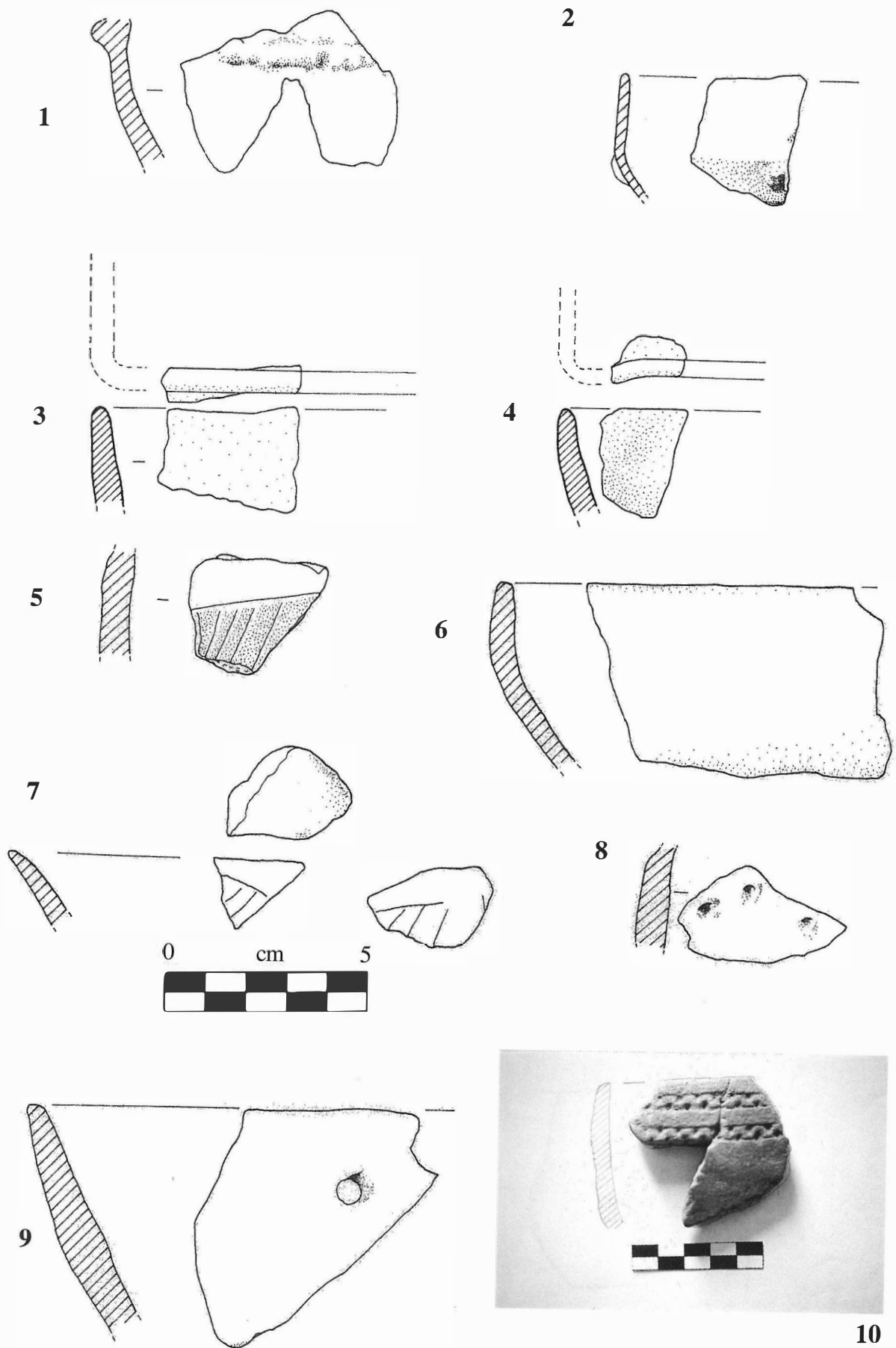
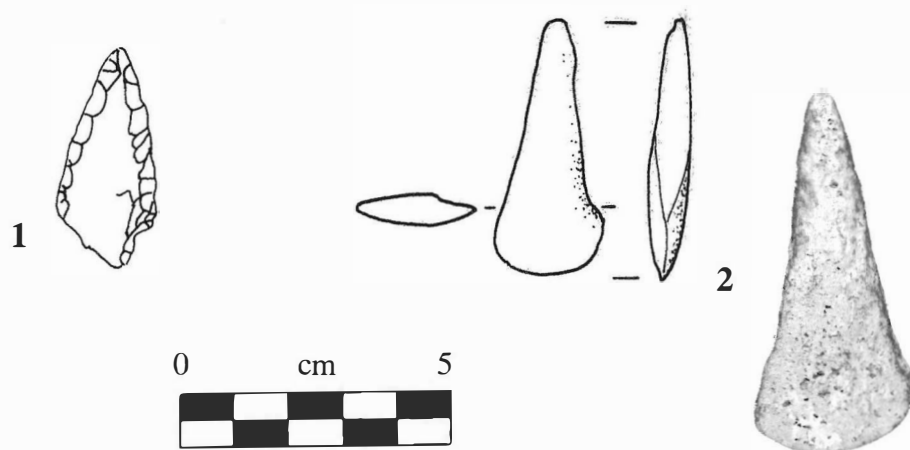


Fig. 3 - Lake Varese, Pizzo di Bodio. " Isolino facies " Square Mouth Vases: 1-9) from US412a; 10) bowl with meander-spiral decorations, on farmland. (drawing by Banchieri)



SPETTRO - 1 -

Operator : brambilla
 Client :
 Job : ascia zona lucida
 2 zona lucida vicino zona verde (07/10/97 15:14)

3

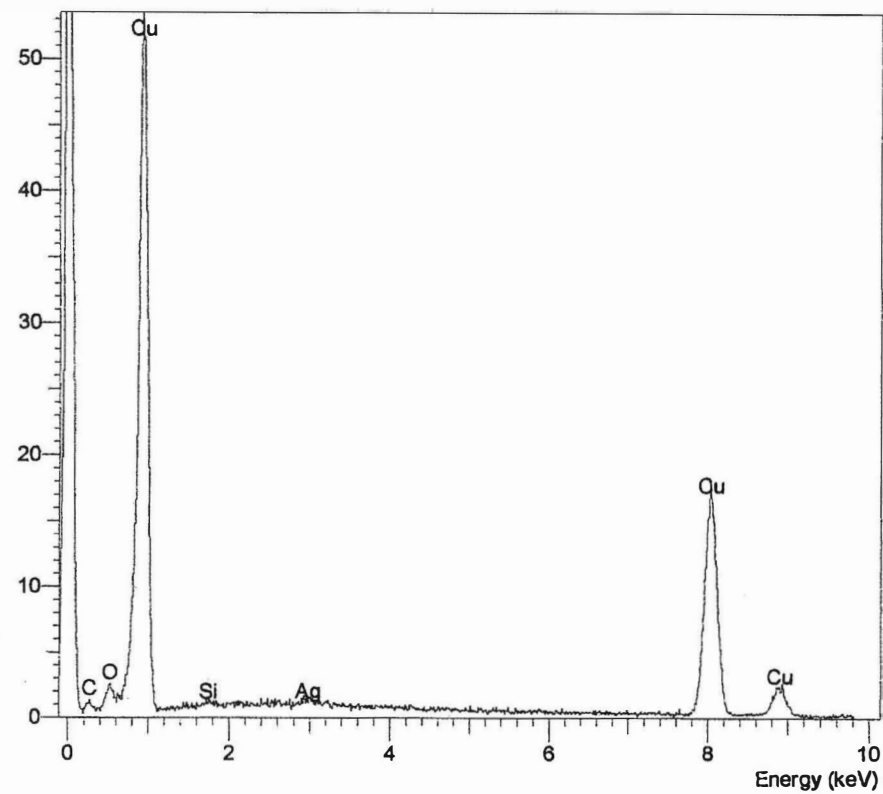


Fig. 4 - Lake Varese, Pizzo di Bodio. Eneolithic: 1) foliate point from the area south of the dwelling; 2) Copper axe (drawing by. Banchieri); 3) spectrum of the components of the axe.