Personal ornaments, Neolithic groups and social identities: some insights into Northern Italy

Roberto Micheli

Soprintendenza per i Beni Archeologici del Friuli Venezia Giulia, Trieste, IT roberto.micheli@beniculturali.it

ABSTRACT - The Neolithic is an interesting phase for observing the changes which affected the material culture and the ideology of the prehistoric groups in Europe. The production of personal ornaments improved and new types appeared. A new kind of adornment object was often linked to a new costume expressing a particular social identity, and therefore to new social messages. This paper focuses on the personal ornaments of the Early and Middle Neolithic groups of northern Italy dated between 5600 and 4300 calBC taking into consideration their geographical distribution, the raw materials employed, the exchange networks, the interrelation between different groups and the funerary practices. The analysis of the changes in raw materials, colours and shapes of adornment objects can also give an insight into Neolithic social identities.

IZVLEČEK – Neolitik je zanimivo obdobje za opazovanje sprememb, ki so vplivale na materialno kulturo in ideologijo prazgodovinskih skupnosti v Evropi. Proizvodnja osebnih okrasnih predmetov se je izboljšala in pojavili so se novi tipi nakita. Novo vrsto okrasnih predmetov so pogosto povezovali z novimi vrstami noše, ki naj bi odražale določene družbene identitete in posledično tudi nove družbene informacije. V članku se osredotočam na nakit zgodnje- in srednje-neolitskih skupnosti severne Italije v obdobju med 5600 in 4300 calBC, pri čemer upoštevam geografsko distribucijo, uporabljene surovine, omrežje izmenjav, povezanost različnih skupnosti in pogrebnih praks. Analiza sprememb v uporabi surovin, barv in oblik nakita nam prav tako omogoča vpogled v družbene identitete neolitskega obdobja.

KEY WORDS – personal ornaments; regional groups; Early and Middle Neolithic; Impressed/Cardial Ware culture; Po Plain Neolithic groups; Square Mouthed Pottery culture

Introduction

Practices of body ornamentation are very important in all traditional societies from prehistory to modern times. In fact, human beings have always considered their bodies as a natural support for decoration and transformation, as a medium to convey symbolic meanings (*Cordwell 1979*). Personal ornaments, as a component of body adornment, are often significant material elements in defining the identity of social groups and their members: they are conceived and universally employed in order to distinguish individuals and groups from each other and to convey information to others about age, gender, social status and membership. Thus, such objects can serve as means of constructing and dis-

playing social identity. However, adornment items also constitute a field of material culture with psychological and religious implications, since they are often considered powerful objects connected to magic and the supernatural (*Roach, Eicher 1979*).

The increase and spread of body ornamentation in the Neolithic was certainly due to innovations in the social organisation of Neolithic communities wrought by the development of farming, animal husbandry and settled villages. It was also a consequence of changes in craft production, exchange networks and raw material procurement which took place during the Neolithic and which strongly

DOI: 10.4312/dp.39.16

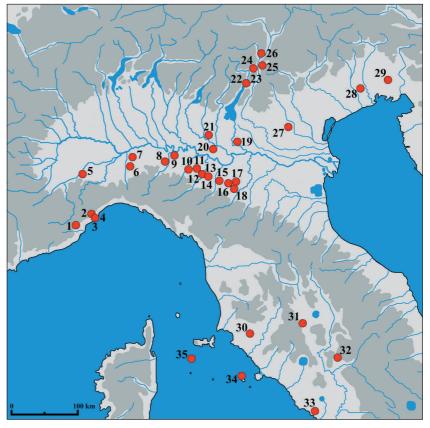
influenced material culture and subsistence. Unfortunately, many forms of body adornment do not survive in archaeological deposits, limiting our knowledge about past identities. Instead, personal ornaments, which are mostly made of non-perishable material, are often recovered during excavations and can be extremely useful for the study of some aspects of costume. During the first phases of the Neolithic period, the production of personal ornaments increased and new types appeared. These are two significant clues indicating an increase in the complexity of Neolithic ways of appearance. In fact, in traditional societies, a new kind of personal adornment object is often linked to a new form of costume, new messages to convey and new cultural and social identities. These can also be expressed through the choice and manipulation of particular raw materials and/or the characteristic shapes and colours of personal ornaments, as well as by their arrangement on the body or clothing.

The data available for the Italian Neolithic are not yet comparable to those of other European Neolithic groups, although they have been increasing in the last years, thanks to some fortunate discoveries (Fig. 1). The paper explores some of the above issues, focusing on the personal ornaments of Early and Middle Neolithic groups in northern Italy dated between 5600 and 4300 calBC, concentrating on the period during which prehistoric groups moved from the first stages of Neolithisation in the 6th millennium calBC to a well-established, well-organised and fully Neolithic society in the 5th millennium calBC. The study investigates how personal ornaments may disclose social or cultural identities taking into consideration the raw materials employed, the existence of patterns in the material culture and the geographical distribution. Lastly, it considers the relevance of objects of adornment in funerary contexts.

The Early and Middle Neolithic of northern Italy: a brief outline

The Neolithisation of northern Italy took place during the first half of the 6th millennium calBC with the colonisation by Impressed Ware groups of the coastal territories of the Tyrrhenian and Ligurian seas along maritime routes following the main marine streams. A second case of colonisation of Impressed Ware groups is attested along the Adriatic coast of the Peninsula, when such groups spread

Fig. 1. Neolithic sites mentioned in the text and figures: 1 Arma di Nasino. 2 Pipistrelli or Borzini cave and Arma dell'Aquila. 3 Arene Candide cave. 4 La Pollera cave. 5 Alba. 6 Brignano Frascata. 7 Godiasco - Monte Alfeo. 8 Travo - Case Marchi. 9 Le Mose. 10 Ponte Ghiara. 11 Pontetaro. 12 Collecchio. 13 Parma (Benefizio and via Guidorossi). 14 Gaione (Cascina Catena and Cinghio) and San Ruffino (Cascina Marana and Villa Greci). 15 Bazzarola. 16 Rivaltella - Ca' Romensini and Chiozza di Scandiano. 17 Formigine - Cantiere di Magreta. 18 Fiorano Modenese. 19 San Giorgio - via Raffaello. 20 Vhò di Piadena. 21 Ostiano – Dugali Alti. 22 Riva del Garda - via Brione. 23 Moletta Patone rock-shelter. 24 La Vela. 25 Gaban rock-shelter. 26 Mezzocorona Borgonuovo. 27 Fimon - Mo-



lino Casarotto. 28 Fagnigola. 29 Sammardenchia. 30 Fontino cave. 31 Orso cave. 32 Bella cave. 33 Patrizi cave. 34 Giglio island – Le Secche. 35 Pianosa island – Cala Giovanna and La Scola.

from the central Italian regions, reaching Romagna in the second half of the 6th millennium calBC (Bagolini 1992.280-284; Pessina 1998; Malone 2003; Pessina, Tiné 2008). Until the first centuries of the 6th millennium calBC, almost all northern Italian territories were occupied by late Mesolithic hunter-gatherers of the Castelnovian tradition (Binder 2000; Biagi 2003; Franco 2011) which in some cases may have had a role in the process of Neolithisation; however, such groups are not attested in Liguria, where Neo-

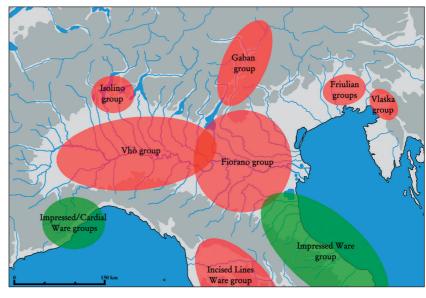


Fig. 2. Early Neolithic groups of northern Italy.

lithic groups settled in the western territory in the first centuries of the 6th millennium calBC in an apparently 'empty space'. A recent study of the literature (Binder, Maggi 2001) recognises two main phases in Liguria and Provence: an ancient horizon, characterised by Impressed decoration and dated between 5800 and 5400 calBC, testifies to the first episodes of colonisation, while a more recent horizon with the characteristic Cardial decoration is dated between 5400 and 5000 calBC and is contemporary to the French-Iberian Cardial Ware horizon (Binder 2000; Manen, Sabbatier 2003; Skeates 2003; van Willinger 2004; Guilaine, Manen 2007). In the Po Plain, however, Neolithisation happened around the middle of the 6th millennium calBC, when the Padan Neolithic groups occupied the extensively forested area along the main river courses (Bagolini 1992.284-293; Pessina 1998; Malone 2003; Pessina, Tiné 2008). While the former was a clear colonisation event from the southern regions along maritime routes, the latter was a more circumscribed and complex phenomenon that included various processes and influences not yet completely understood. The two chronologically contemporaneous cultural spheres in the second half of the 6th millennium calBC (Fig. 2) remained substantially independent of each other, preserving their specific material culture despite the fact that some contacts existed between them.

The first process of Neolithisation in northern Italy and the subsequent phase during which the Po Plain Neolithic groups put down roots were followed, between the end of the 6th and the first century of the 5th millennium calBC, by a phase during which Neolithic societies consolidated. In a short span of time, Early Neolithic groups had been replaced and absorbed by the Square-Mouthed Pottery (Vasi a Bocca Quadrata, SMP) culture, which displayed a strong ability to expand and adapt to the many different environments of northern Italy. SMP culture developed during the 5th millennium calBC in three main phases which were marked by variations in pottery decoration and which affected a vast geographical area from Piedmont and Liguria in the west, to western Friuli in the east. 1 Its main core area was localised in the central Po Plain between western Emilia, southern Lombardy and western Veneto (Bagolini 1992.293-300, Figs. 4-5; Pessina, Tiné 2008.96-99, Fig. 13). The development of SMP culture has long been the subject of discussion, but today its local origins are widely recognised, although various cultural influences from other regions may have helped shape it. Thus, local roots and external cultural inputs contributed to the rise of a distinctive culture with a strong identity and a high degree of uniformity, despite some regional divisions. The discoveries made in recent years have greatly increased our knowledge of the SMP culture, revea-

¹ The first phase (SMP 1 – geometric-linear style) is characterised by the presence of fine-ware pottery decorated with geometrical scratched patterns and can be dated between 5000/4900 and 4500 calBC (Bernabò Brea et al. 2010a.Fig. 1). The second phase (SMP 2 – meander-spiral style) presents incised spiral pattern decorated pottery and appears between 4500 and 4300 calBC (Bernabò Brea et al. 2010a.Fig. 2). The third phase (SMP 3 – incised and impressed style) is characterised by the presence of impressed and incised decoration and continues until around 4000 calBC. The appearance of the first Chassey groups around 4300 calBC marks the end of the development of SMP culture in north-western Italy, whereas it continues in the north-eastern regions with clear northern transalpine influences (Mottes et al. 2010).

ling its complexity and raising new questions about its origin and evolution (*Ferrari* et al. 2006; *Bernabò Brea* et al. 2010a; 2010b; *Dal Santo*, *Mazzieri* 2010; *Mottes* et al. 2010).

Social identity and appearance: some considerations

The Neolithic is an interesting phase for observing the changes which affected the material culture and ideology of prehistoric European groups. "It is widely accepted, in fact, that the emergence of farming was a fundamental social change in Europe" and elsewhere. "The emergence of new kinds of social practices arising simultaneously with their definition was therefore of major importance in these times of widespread change. New individual persons would have been created within expanded forms of relational personhood through the impact of new kinds of social groupings, new embodied skills and new raw materials. It is clear that early farming groups depended on a far wider range of skills and competences than in the previous period. The construction of such new types of skill created a concomitant rise in the diversity of personal identities" (Chapman, Gaydarska 2011.28, 37). Such diversity was highlighted in many ways by body ornamentation and its multiform expressions. Bodily appearance is, in fact, a powerful and meaningful tool for expressing social categories and identities. It is commonly used to signal how individuals are placed within society and to mark changes in their status. Moreover, it can be deliberately employed to affirm the identity of both individuals and groups. Part of its significance lies in its readability and, indeed, body adornment contains codes that can be investigated (Sørensen 1997. 93). By means of dress, personal ornaments, hairstyle, tattooing, body painting and modifications, as well as posture and gesture, an individual can communicate many messages, allowing self-identification as a member of larger or different social groups. Nevertheless, appearance is not fixed nor static, but changes in time and in relation to the lifecycle of individuals (birth, puberty, sexual maturity, death, etc.) and to their status, since the individual moves the same body through many identities, often simultaneously changing the elements that express them (Fisher, Loren 2003): past and present identities are, in fact, fairly complex issues, and the human body acts as a basic point of reference. However, the body may attain multiple social identities. Many scholars have stressed the multiplicity of human identities. Some types of identity groups may have little stability and duration, but other identity groups are fairly stable and change slowly (*Cornell* 2004.77–78).

Terence Turner (1969; 1995) stresses the relevance of body adornment as a special form of symbolic communication the purpose of which is to classify individuals during transitions in their life; changes, in fact, are marked by a transformation in body ornamentation. "The body and direct modifications of its form tend to play a role more fundamental in simple societies than in ones with differentiated systems of exchange. In such simple societies, the circulation of tokens of social identity and value may not be mediated by the exchange of objects (valuables, gifts, or commodities). Societies in which social identity is not constituted primarily through the exchange of goods nevertheless depend on the public circulation of symbolic tokens of valued aspects of personal identity, such as marks of status, appropriate role performance, and the values associated with them. In the absence of concrete objects that might serve as embodiments of such values or tokens of status, a society may make use of other modes of circulation that do not rely on the exchange of objects. One such mode is specialized verbal performance. Another mode of circulation without exchange is through visual display that involves specialized forms of bodily appearance. Where these forms of bodily appearance carry the main load of communicating the nature and value of personal identity, they frequently involve the direct modification of the body itself and/or the elaboration of complex semiotic codes of bodily adornment fraught with social messages about the content and value of personal identity and status" (Turner 1995.147). Thus, body adornment connects the social and biological aspects of individuals with the values of the society in which they live and move.

Representation and materiality: the role of personal ornaments

The personal ornaments of Italian Neolithic groups comprise largely ring bracelets and beads, while decorative applications do not appear to be very common. Firstly, however, it is important to stress the material distinction between unelaborated and elaborated ornaments: the former include objects with natural, unmodified shapes, such as simply perforated shells, teeth and bones; the latter, however, refer to artefacts such as beads or ring bracelets produced through a complex manufacturing

process involving a complete change from the original morphology of the raw materials and blanks employed. As is well known, unelaborated ornaments were largely employed from the early phase of the Upper Palaeolithic (White 1992; 2007; Vanhaeren, d'Errico 2006; Kuhn, Stiner 2007), perhaps even earlier (Zilhão 2007.24-27), and continued to be used during the Neolithic and later, decreasing progressively in number and importance. The spread of elaborated ornaments is a characteristic phenomenon of the Neolithisation process (Wright, Garrard 2003; Bar-Yosef Mayer, Porat 2008; Rigaud 2011) and of subsequent periods, even though such artefacts are attested also in hunter-gatherer body decoration of previous phases (White 1992.550-553; Rigaud 2011).

Unelaborated personal ornaments may link individuals to the natural world through a metonymy (White 1992.542), associating the wearer of a simply perforated animal tooth to the whole animal body and its imagery. Furthermore, such association can have powerful and diversified symbolic meanings. In fact, in traditional societies, parts of animals or plants are often used metonymically as elements of personal adornment in order to associate the wearer with the qualities of the animal. The process of decoration in the Papua New Guinea Highlands, for example, is not representational but metonymical: when Hageners wish to associate themselves with powerful, magical things such as birds, they do not depict birds on masks, carvings, or paintings. Instead, they take the birds' feathers and wear them as decorations (Strathern, Strathern 1971. *176*).

Elaborated ornaments introduced changes in body adornment and appearance in the form of new geometric shapes previously not widely attested, causing a progressive shift from items strictly linked to natural forms to more abstract objects having no obvious connection with the physical and mineral world. The reasons for such a shift are several: one is related to developments in society and the increasing need for objects of adornment displaying the various identities of Neolithic people in a new and more complex social world; another is related to improved polishing techniques, increasing the ways of shaping materials. Elaborated ornaments require a more complex manufacturing process which, as Randall White (1992.541) noted, involves three stages:

- the selection and procurement of raw materials;
- 2 the transformation of these into conventional

- forms via a set of techniques and production relations;
- **3** exchange/display/use of the finished objects.

Each of these operational stages is, of course, carried out in a particular social and cultural physical environment. Such an operational chain leaves significant traces in the archaeological record and raises the clear possibility of studying the construction of meaning and its socio-spatial distribution in archaeological contexts. Nevertheless, the organised production of artefacts in traditional societies was not simply linear, because operational phases and sub-phases are characterised by conditions of temporal and spatial discontinuity, phenomena of intersections of different cycles of manufacture, and, in some rare cases, events of ramification of some operational stages (*Vidale 1992.111*).

Material systems of personal adornment enable the construction of a diversity of social and personal identities linked to individual and group histories, values and beliefs through deep metaphorical relations between the raw materials employed and the created forms of the objects (White 2007.287). As already noted, personal ornaments are among the various components of body adornment which can survive in archaeological deposits, giving some interesting clues about the multiform representation of identity. In particular, burials are the best field in which prehistoric identities are revealed, because much of the evidence of costumes found in such contexts, including personal ornaments, was presumably related to the appearance of the dead person when he/she was alive, even if they were transformed culturally and conceptually in the grave into the clothes of the dead (Sørensen 1997.102). Moreover, differences in the arrangement of graves and the treatment of corpses, the presence of offerings in graves, the richness and variability of gravegoods and, lastly, the presence of body adornment relate to the funerary ideology of each human group and the ways it imagines the otherworld. Nevertheless, in traditional living societies, such variability also depends on other factors linked to the personality and social identity of the dead, such as age group, gender and social membership and/or acquired prestige during life as a consequence of oratory ability, experience and interpersonal relationships. "Different societies have in fact different concepts of the person, different understandings of the boundaries of and interpenetrations between people and things, one person and another, and groups. Some artefacts might be features of a person, or persons in their own right" (Fowler 2004.4). According to this view, variability in personal ornamentation can be one of the multiform expressions of such differences and can be detected in funerary contexts.

The spread of some specific personal ornaments among many individuals of one or more groups can display and stress their membership of a particular community. In fact, "the ethnographic evidence indicates that the range of animal and plant species selected for the decorative value of their parts is usually quite constant within the same groups and among closely related communities. This homogeneity is probably due to the fact that their value as personal ornaments derives from a deeply imbedded and widely shared cosmological structure with respect to particular species. In other words, animals of great cosmological value or power are often used in the construction and communication of social identities" (White 1992.543). This can also be true of raw materials from mineral sources, such as steatite, variscite or softer green stone, employed to create body adornments not only for their evident technological and aesthetic qualities, but also, perhaps, for their intrinsically powerful, symbolic values. However, an analysis of sources of supply, of circulation networks of objects and the possible existence of zones where some items do not appear at all, can reveal the scale of territorial organisation and population dynamics on the basis of local, regional or long-distance item distribution, which can identify cultural, ethnic or linguistic entities as shown by the personal ornaments of the Early Upper Palaeolithic by Vanhaeren et d'Errico (2006), of the Mesolithic by Newell et al. (1990), and, recently, of the final Mesolithic and Early Neolithic by Rigaud (2011). Nevertheless, temporal and spatial variation in patterns of material culture could be related to changes in the degree of conflict and competition for resources, as some ethnographic evidence suggests; in fact, material culture can be used to express and reinforce aspects of social relationships that are related to economic and political strategies. This is true, in fact, between sex, age, and political groups within societies as much as it is true between societies as a whole. Forms of body adornment can be use in some instances also "as key symbols in the structuring and unfolding of political life". Thus, "like a map with marks of social and political terrain, body decoration gives a chart of the cultural anatomy which structures relations of status, hierarchy, and power" (Steiner 1990.443). Besides, "bodily adornment may show

the position of a person in a hierarchical system of authority" (Roach, Eicher 1979.15). In the Lake Baringo district in Kenya, for example, there was a very clear difference between the clothes and personal ornaments worn by young unmarried men and those worn by older age-sets who are able to marry; such a distinction clearly depends on the considerable amount of tension between the younger and older men over access to women as wives acting as a key factor in their social structure (Hodder 1979. 447–448; 1982).

Personal ornaments and Early Neolithic groups: the case of northern Italy

Neolithic personal ornaments in northern Italy comprise mainly ring bracelets of stone and shell and necklaces formed by various unelaborated or elaborated elements of stone, shell and tooth joined together with a string and arranged as a sequence of one type only or as a mixed composition of various materials. Two large independent cultural spheres existed during the Early Neolithic as a consequence of the processes involved in Neolithisation (Fig. 2). Some characteristics of such cultural distinction are also reflected in personal ornaments and, consequently, in body adornment and appearance. It is possible, in fact, to distinguish two main traditions in Neolithic costume: on the one hand, the employment of simply perforated shells as beads, pendants or decorative applications characterised the Impressed and Cardial groups; on the other hand, stone ring bracelets were peculiar to the Po Plain Neolithic groups. However, a more flexible picture probably existed, with local and regional variations in bodily decoration also within the same cultural sphere, but the available data do not allow a more precise analysis.

Personal ornaments are generally not numerous, since very rich collections from the Early Neolithic in the Thyrrenian and Ligurian areas are very few. Arene Candide cave in Liguria (Bernabò Brea 1946; 1956; Taborin 1974.309–310; Traversone 1999; Borrello 2003) and Cala Giovanna Piano and La Scola on Pianosa Island in Tuscany (Bonato et al. 2000; Ducci et al. 2000; Bisconti, Zamagni 2007) yielded the largest collections of personal ornaments, along with a few other localities in southern France and Corsica (Taborin 1974; Courtin, Gutherz 1976; Barge 1987; Courtin 2000). The Arene Candide cave is undoubtedly the most interesting site due to its huge archaeological deposit and well-preserved stratigraphy, documenting the whole chrono-

logical development of the Neolithic in Italy (*Maggi* 1997); but it is also an important reference site for the entire north-western Mediterranean. Also, the cave presents a large and diversified assemblage of Neolithic personal ornaments.

Impressed/Cardial Ware² people made personal ornaments mainly from shells; other raw materials are generally less represented. This may have been influenced by the location of many Neolithic sites immediately along the coast or nearby (Fig. 1): marine resources, in fact, were intensely exploited both for human nutrition and the manufacturing of daily tools, as well as for producing personal ornaments. Many shell species were employed, but Columbella rustica (Fig. 3) was surely predominant at many sites of the Tyrrhenian coast, Liguria and southern France. As noted elsewhere in the western Mediterranean (Barge 1987; Courtin 2000.87; Guilaine, Manen 2007.28-29), its frequent occurrence as an ornamental shell might be related to the previous adornment tradition of the last hunter-gatherers groups, since simply perforated Columbella rustica shells and red deer canines are ubiquitous ornaments of Mesolithic groups in northern Italy and the surrounding regions (Alvarez Fernandez 2003; Borrello, Dalmeri 2005. 43-45; Franco 2011.79-89; Rigaud 2011.399, Fig. 148). Unfortunately, in Liguria there is no evidence of any direct relationship between the last Mesolithic and the early Im-

0 1 cm

Fig. 3. Perforated Columbella rustica shell from the Arene Candide cave (photo R. Micheli, courtesy of Museo Civico di Archeologia Ligure – Genova-Pegli).

pressed Ware groups, since there are no Mesolithic sites along the coasts dating back to the first half of the $6^{\rm th}$ millennium calBC. Therefore, Mesolithic component in Neolithic body adornment precedes the arrival of Impressed Ware people in Liguria and probably originated from some other southern Italian region.

The frequency of elaborated personal ornaments is generally low. There are some fragmented ring bracelets obtained from Glycymeris and Spondylus shells and some characteristic pendants made of Charonia, Glycymeris or Spondylus shells (Fig. 4). Among beads, there are some discoidal specimens obtained from Cardium shell (Micheli 2005.Fig. 8). Evidence of personal ornament manufacturing is sporadic in the Impressed Ware zone, except for a few findings of the Arene Candide cave attesting the beginning of ring bracelet production from Spondylus gaederopus shells (Borrello, Micheli 2011.Fig. 4). Evidence of shell bead manufacture is occasional in Italy, since there are no data as interesting as those from southern France, where some specialised workshops at Chateauneuf-les-Martigues, Riaux 1 and Fontbrégoua operated (*Taborin 1974.311–312*; Barge 1987; Courtin 2000.93-94, Figs. 42-43).

Some stone discoidal or cylindrical beads complete the series of elaborated ornaments. Some steatite specimens were found on Pianosa, but no evidence of local manufacture (*Bisconti, Zamagni 2007.142*), which is documented in the case of discoidal schist beads on Giglio island, where some rough outs were discovered (*Brandaglia 2000.126*, *Fig. 2.23–26*).



Fig. 4. Crescent-shaped Spondylus gaederopus shell pendant from the Arene Candide cave (photo F. Labica and S. Paba, courtesy of Museo Civico di Archeologia Ligure – Genova-Pegli).

² I use the generic name of Impressed/Cardial Ware where it is not possible to be more detailed because the data on personal ornaments are scarce, or they are statistically significant in only one of the two phases.

Some other stone beads are attested at the Arene Candide cave, where a possible steatite blank for cylindrical or discoidal beads was also found (Starnini, Voytek 1997.429, Fig. I.I). More evidence of steatite beads is attested in central Italy in some Impressed Ware sites (*Micheli 2003.286*). However, the use of stone beads or pendants is sporadic. Steatite is a soft variety of talc that can be found in the northern Apennine range, in the central hilly zone of Tuscany, but also in central Liguria. It is a very important raw material, largely exploited for making personal ornaments later, during the 5th millennium calBC, among the SMP people of Emilia (Micheli et al. in press; Micheli, Mazzieri 2012). It is difficult to say if the beginning of steatite exploitation is related to the penetration of Impressed/Cardial Ware groups into inland areas or, instead, if it was a result of the spread along the Tyrrhenian coasts of steatite personal ornaments manufactured by Neolithic groups inhabiting inland areas; on the other hand, steatite ornaments are rare among the Po Plain and central Italian Neolithic groups.

In northern Italy, ring bracelets are characteristic and seemingly exclusive to all groups of the Early Neolithic (Fig. 5). They are very common in the Fiorano, Vhò and Friulian groups (Sammardenchia and Fagnigola), but are attested in small numbers also in the Isolino and Gaban groups and in central Italy, in the area affected by Incised Lines Ware (*Ceramica a Linee Incise*) groups. As we have seen, these objects are unknown in the Impressed/Cardial Ware costume and appear only in Liguria during a transitional phase between the final Cardial horizon

and the SMP 1 phase (Tanda 1977; Pessina 1998; Micheli 2012). The distribution of such objects is very wide, indicating that the use of this particular body adornment was trans-cultural and had a long-lasting tradition as an important component of costume. Unfortunately, complete bracelets are few (Fig. 6) and it is plausible that they come from disturbed graves, but there are no data to prove this. However, their use as arm-rings is likely, as evidence shows in France (Joffroy 1972; Constantin, Vachard 2004) and central Europe (Zápotocká 1984; Nieszery, Brienl 1993; Jeunesse 1995; 1997).

The most common bracelets have a triangular or drop section (*Tanda 1977.112*). Various types of rock were used, but softer green stones are certainly the most preferred for their technical qualities, easy workability and aesthetic qualtities. Ring bracelets can also be made from bone and shell; the former, however, are very rare, while the latter are more numerous, although less common than stone specimens. Shell items are made of *Spondylus gaederopus*, *Glycymeris sp.*, and *Charonia lampas (Micheli 2006a; Borrello, Micheli 2011)*. The geographical distribution of stone and shell ring bracelets often coincides, although the latter are less common and probably more precious.

The remains of stone ring bracelet production are attested at some sites in the Piedmont region, in the area with deposits of secondary Oligocene conglomerates. The remains are documented in the same sites (for example Alba and Brignano Frascata), where the production of stone axes and hatchets is also attested (Negrino et al. 2004; Starnini et al. 2004). Such evidence testifies to a form of specialised craft based on the transformation of raw materials that needed particular skill and knowledge. Raw materials were brought to those settlements located in the same region where the ornaments were worked, refined, employed locally or distributed to the central and eastern Padan Neolithic groups. Green stone ring rough-outs are attested also from a few central Po Plain sites, proving that the final manufacture of stone bracelets also took place in settlements very far from the main supplying areas. The incidence of the raw materials emplo-

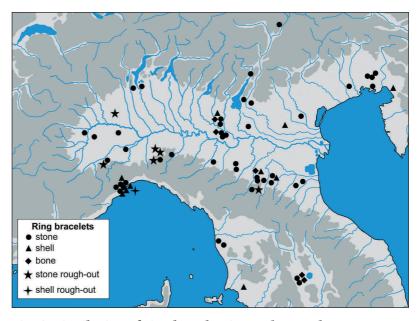


Fig. 5. Distribution of ring bracelets in northern Italy.



Fig. 6. Paragonite mica-schist ring bracelet from Sammardenchia settlement (after Pessina 1998).

yed for stone ring bracelets varies among the different Neolithic groups (*Micheli 2012*) depending on various factors, such as:

- the distance of the raw material procurement area from settlements;
- the availability of good quality stones in territories controlled by various groups;
- the presence of other less valuable stones locally;
- the preference for green stone objects rather than other rocks;
- the existence of exchange networks allowing the spreading of valuable raw materials and goods.

In the Po Plain area, other personal ornaments are occasional. Elaborated ornaments such as discoidal beads are also exceptional and found at only three sites: in Lumbardy at Ostiano - Dugali Alti with one Spondylus specimen (Biagi et al. 1993.Fig. 10.2) and at Godiasco - Monte Alfeo with a steatite specimen (Simone Zopfi 2004.92, Fig. 86.1-3), and in Trentino at Riparo Gaban with a few limestone samples. Perforated Cyclope neritea and Columbella rustica shells are known only from the Riparo Gaban (Borrello, Dalmeri 2005.45), where such items seem to continue a previous tradition attested during the Late Mesolithic. The Gaban group is, in fact, a well known case of an acculturated Mesolithic local community (Bagolini 1992.290-292). Such a context also yielded perforated red deer canines, being another characteristic Mesolithic item of adornment. A few fossil *Dentalium* shells came from two sites at Vhò and one at Fiorano (Micheli 2005.58).

Unfortunately, Early Neolithic burials are little known in northern Italy (*Bagolini, Grifoni Cremonesi 1994*). This is a problem for anyone attempting to reconstruct Early Neolithic social identities, since it does not allow us to define the forms

of body adornment, nor does it allow any observations regarding the relationship between the body and personal ornamentation: in fact, in the few identified burials, no personal ornaments have been found. However, Impressed/Cardial burials have not yielded any personal ornaments or grave-goods, even in the remainder of the Italian Peninsula (Grifoni Cremonesi 2003; Malone 2003). In central Italy, in Tuscan and Latium regions, some burials of the Incised Lines Ware group occur with gravegoods and personal ornaments in Fontino, Orso, Bella and Patrizi caves (Fig. 1). Nevertheless, such burials are of no help in providing information about the identities of the dead, since they were disturbed or completely damaged by later cave occupations. However, adornment items are various and include unelaborated ornaments (perforated shells, fossil *Dentalium* shells, small bones tubes and perforated red deer canines) and elaborated objects (stone and bone ring bracelets, perforated bone plaques and occasional pendants imitating red deer canines) (Grifoni Cremonesi 1992. 319-320; Bagolini, Grifoni Cremonesi 1994. 150-151). Objects of adornment, including some shell discoidal beads and pendants and a few stone and shell ring bracelets are occasionally attested also in burials in southern France attributed to the Cardial horizon (Beyneix 1997). Since Impressed/Cardial Ware burials have not usually yielded any grave-goods or personal ornaments, such evidence provides interesting clues as to the spread of body adornment components characteristic of other neighbouring Neolithic communities in the funerary context of a French Cardial Ware group.

Different ways of adorning the body: the Italian Middle Neolithic example

The Middle Neolithic period shows a more complex picture. Particularly in the first and second phases, SMP culture presents a certain degree of complexity in the costume domain, as indicated by the variability of forms and raw materials employed for personal ornamentation. Information is very scanty, however, in the last phase, as is the case for many other groups attributed to the Late Neolithic. During the SMP 1 and 2 phases, considerable differences in body adornment are documented particularly in Liguria, the central Po Plain, and the Trentino area, where personal ornaments are generally well attested.

The importance of shells and teeth in Liguria In Liguria, body adornment items comprise simply perforated shells, bones and teeth, while elaborated ornaments are few. Such objects are particularly common during the SMP 1 phase, decreasing significantly later. The occurrence of simply perforated shells is high and seems to depend on an older tradition typical of the Ligurian Early Neolithic; the incidence of the Columbella rustica continues to be high also during the SMP phase in Liguria, but other species such as Cardium and Glycymeris are also used. A similar high incidence of perforated shells is attested nowhere else in northern Italy, except at Ponte Ghiara in Emilia, where there is a formative phase of the SMP culture. In this site, adornment objects comprise mainly perforated Cardium shells (Fig. 7) procured from a nearby fossil deposit and attesting a Neolithic costume not yet characterised by other SMP personal ornaments, such as steatite or Spondylus beads (Micheli 2006b).

The occurrence of perforated bones and teeth is an interesting phenomenon, because it marks an innovation with respect to the previous Early Neolithic, revealing a prevalence of wild over domesticated animals. Among animal teeth, dog, fox and wolf canines are most common, while sporadic feline, mustelid and bear canines are also employed. Red deer canines, however, are almost totally absent. Simply perforated or transformed pendants made of wild boar tusks also feature. Perforated bones comprise lynx, marten, fox and wild cat mandibles, bear phalanxes and hare and wild cat metatarsus. There is a clear preference for personal ornaments obtained from predators, highlighting the value and skill of those individuals, usually male figures, involved in hunting (Bernabò Brea et al. 2010a).

In Liguria, many SMP burials have been excavated in the caves of the Ponente since the 19th century; in fact, more than a hundred inhumations can be ascribed to the Middle Neolithic phase from excavations at the Arma di Nasino, Pipistrelli, Arma dell'Aquila, Arene Candide and La Pollera caves, as well as a few other sites (Issel 1908; Bernabò Brea 1946; 1956; Delfino 1981; Del Lucchese 1997). The dead were frequently enclosed in stone cists, while infants' graves were unprotected. The bodies were in flexed positions, with most of the

heads oriented N or N-E. Some skeletons were covered with ochre, which in many instances was contained in a vessel. Grave-goods are attested in some burials, but they are not very common (Bernabò Brea et al. 2010a; 2010b). In some cases, the anthropological data are absent or need to be revised after a new analysis. Some 20% of burials had personal ornaments consisting mainly of unelaborated ornaments. Among such items, perforated shells are the most significant, with a preference for Columbella rustica and Glycymeris sp., although other species are also present, such as Cerithium sp., Conus mediterraneus, Purpura haemastoma and Cypraea lurida. Other items include perforated teeth and tusks. Perforated shells and teeth are associated with adults and children's graves of both sexes.

Some burials are worth mentioning because of the personal ornaments associated with the dead. One adult female burial in La Pollera cave (grave I) presents an interesting necklace formed by six perforated canid canine teeth associated with a lynx mandible placed along the right femur (Fig. 8). The use of such composed necklaces is confirmed by two other discoveries at the Arene Candide cave and Parma-via Guidorossi, grave 27 (Bernabò Brea et al. 2010a.Figs. 17–18). In the La Pollera cave (grave X) a child burial disclosed *Dentalium* shells probably used as necklace, as in some children's burials at Emilia. Fragment of two stone rings and one shell ring were discovered in association with skeletal remains at Pipistrelli cave (grave IV), Arma di Nasino and La Pollera cave (grave III), respectively (Delfino 1981); nevertheless, because of their fragmented



Fig. 7. Perforated Cerastoderma (Cardium) shells from Ponte Ghiara settlement (photo R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

state, these objects seem to be offerings deposited in the grave rather than real personal ornaments of the dead. In fact, ring bracelets have not been found in any other SMP burials of northern Italy, indicating that they are not characteristic of SMP groups. Their occasional occurrence and use in some SMP contexts should be interpreted as a practice resulting from an external influence from other coeval Neolithic groups.

Some final comments worth making about the Ligurian case are as follows:

- Personal ornaments are not attested in all graves, just as in other regions under SMP influence; such evidence suggests that they are not always important in displaying the identities of all individuals in the otherworld.
- ② The incidence of elaborated ornaments is low, given the prevalence of simply perforated shells and teeth referring respectively to the marine world and some of its products and to the animal domain.
- **3** The number of personal ornaments in each burial is generally low, showing that body adornment was poor and not particularly complex.
- Perishable items may also have been employed to highlight individual identities.
- **⑤** Adornment items when attested in burials are related both to genders and age groups, making it difficult to identify clearly the correlation between personal ornaments and the different stages of life of the individuals.

The relevance of steatite in the central Po Plain

The personal ornaments of western Emilia and the Mantua territory share many common elements, although in the Mantua area the finds are numerically less significant. In Emilia, adornment objects comprise fossil shells such as *Dentalium* and micro-*Dentalium*, some perforated shells (mostly *Cardium* and rarely *Conus*), and fossil calcareous tubes of marine worms. Perforated canine teeth are also present, including dog, fox and bear teeth (*Micheli 2006b; Bernabò Brea* et al. *2010a*). The incidence of teeth of the various species used for ornamentation reproduces substantially the same ratio documented in Liguria between domesticated and wild animals.

Elaborated ornaments, apart from steatite artefacts, are rare. *Spondylus* artefacts are sporadic, except

for a hemispheric button from Le Mose, a cylindrical bead from Formigine (Mazzier, Micheli in press) and some beads from a grave at San Giorgio-via Raffaello near Mantua (Castagna et al. in press). Such evidence attests the first occurrence of Spondylus ornaments in the SMP sphere in the central Po Plain. In fact, Spondylus ornaments did not seem to be characteristic of this area during the 5th millennium calBC, when they do feature, however, in Liguria and Trentino. The new data show that such artefacts, even if uncommon, were also appreciated by the SMP groups of the Po Plain (Borrello, Micheli 2011). The shapes of Spondylus ornaments from Liguria, the central Po Plain and Trentino differed: in Liguria, ring bracelets and some unusual pendants are attested; in the central Po Plain, a hemispherical button and some irregular beads have been found, while from Trentino, many types of bead are known, among which the large cylindrical type is perhaps the most characteristic.

The production of decorative steatite objects during the Middle Neolithic is an important phenomenon that distinguishes the Emilian SMP communities from other coeval groups. The sites with steatite objects are in fact numerous, while the use of other rocks occasionally persists. Steatite, also known as soapstone, is a soft rock with a very low hardness rating on the Mohs scale (equal to 1), appropriate for manufacturing personal ornaments. It is a metamorphic rock found in ophiolitic masses which are very common in Liguria in the Voltri Group between Genoa and Savona and in the eastern part of the region, as well as in the Tuscan-Emilian Apennines. In the latter



Fig. 8. Lynx mandible and perforated canid canines from La Pollera cave (grave I) (photo R. Micheli, courtesy of Museo Civico di Archeologia Ligure – Genova-Pegli).

area, steatite is often present in discontinuous, strongly lenticular outcrops, usually not very thick and mostly concentrated in rather small areas. No deposits have been found outside the context of the primary formation of steatite, such as river beds far from the point of origin, as the low degree of hardness of the material does not allow storage; thus, the supply must have been available in the primary outcropping areas in the Apennines or nearby zones (Micheli et al. in press; Micheli, Mazzieri 2012).

The available data indicate the existence of a few centres specialising in the manufacture of personal ornaments (Benefizio, Gaione – Cascina Catena and San Ruffino – Villa Greci) where production was very intense, with abundant production waste; meanwhile, finished artefacts prevail at other sites. The discovery of materials showing the entire production sequence is particularly important in the case of Benefizio (Fig. 9), where numerous remains of the manufacture of microbeads and larger discoidal beads were found in features 11 and 79 (*Mazzieri, Micheli 2008*).

The shapes of beads and pendants from Emilia vary widely (Figs. 10–11). It is possible to distinguish three categories of personal steatite ornament:

- Objects that cannot be classified and are often represented by a single specimen, such as extremely fine pendants.
- ② Types which are fairly standardised in shape and size, but cannot be clearly associated with a manufacturing process.
- **❸** Extremely standardised artefacts obtained through a more complex manufacturing cycle (*e.g.*, discoidal or short cylindrical beads with a diameter of 5–8mm, and microbeads with a diameter of 2– 3mm) (Fig. 12).

Steatite ornaments are certainly to be considered a product of high technological investment, probably created by experts and involving specialised craftsmanship. The spread of microbeads, all of the same size and shape, throughout many sites may imply mass production, a control of their manufacturing processes, and probably the existence of artisans with specific skills (Fig. 13). This hypothesis is also supported by the occurrence at several sites of biconical pendant (Figs. 11.1–3 and 14), whose particular features suggest that there was control of the shape and dimensions of the artefacts, demonstra-

ting the existence of well-organised production, as well as specific patterns for the production of ornaments (*Micheli, Mazzieri 2012*).

The abundance of steatite remains at some sites and their distribution indicates that manufacturing transcended the mere domestic sphere. However, the occurrence of such remains is variable; there are, in fact, differences between sites where the artefacts are very numerous and diverse, and other sites where production seems to have been more limited. What is certain is that the manufacture of steatite ornaments was so important for Emilian SMP groups that it undoubtedly had considerable economic and social implications, at least for some communities or villages. Moreover, it is likely that such objects were used to emphasise the status of certain individuals or, perhaps, of particular social groups, since they are not evenly distributed among the SMP burials identified so far in Emilia, despite being fairly common in many settlements. It is also possible that steatite artefacts were worn by those who were somehow involved in the supply of raw material and the manufacture of ornaments (Micheli et al. in press).

The production of these steatite objects, already well attested for the SMP 1 phase, increased during the second phase. In fact, during SMP 2, such growth is simultaneous with the manufacture of various types of artefact made from exotic rocks as a result of the intensification of wide-ranging cultural relations between SMP groups and other contemporary cultures such as Serra d'Alto. Nevertheless, steatite items do not seem to circulate widely outside the central Po Plain, and when they occasionally leave such an area, they remain in the SMP world, as shown by the recent finds in Trentino. Such evidence suggests a close connection between steatite artefacts and SMP



Fig. 9. Remains of steatite microbead production from Benefizio settlement (photo R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

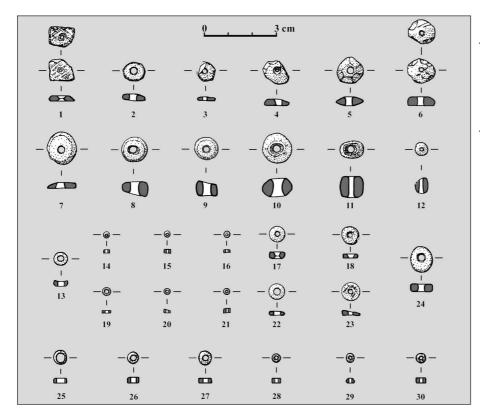


Fig. 10. Steatite beads from SMP sites in western Emilia. 1 Ponte Ghiara; 2-5, 7, 11, 16-18, 21-24 Gaione - Cascina Catena; 6 Travo -Case Marchi; 8 San Ruffino – Cascina Marana; 12 San Ruffino - Villa Greci; 9, 13 Bazzarola; 10, 14, 15, 19, 20 Chiozza di Scandiano (grave I); 25-30 Rivaltella -Ca' Romensini (drawings by R. Micheli, courtesy of Museo Archeologico Nazionale di Parma and Musei Civici di Reggio Emilia).

people, and how the former were used as material elements of body adornment to mark the identity of Emilian groups (*Micheli, Mazzieri 2012*).

The discoveries found in recent years in Emilia have increased the data available so far concerning SMP funeral practices, highlighting their complexity: it is possible, in fact, to establish a framework of elaborate rituals, modes of treating bodies, choice of grave-goods and objects adorning the dead. The graves identified so far between Piacenza and Reggio Emilia number over 230, which is a good sample for the study of Neolithic burial practices and their variability. Pots and some bone tools are generally associated with female burials, while green stone axes and flint arrow-heads are male burial objects (Bernabò Brea et al. 2010a; 2010b). Thus, gender distinction of the dead is evident, although burial objects are not evenly distributed. It is possible to distinguish burials without grave-goods or ornaments, with only grave-goods, with ornaments only, and finally with grave-goods and ornaments. Such distinctions are clues to differences in the personal and social identities of the dead which, however, are not always clearly understandable. The occurrence of adornment objects is generally low, about 10% of the total: these objects appear frequently in the burials of female adults or children, and only in rare cases in male graves. What is remarkable in the expression of the SMP costume is the eclecticism in the

choice of personal ornament and the variability of body adornment between individuals due to the dynamic SMP society. Therefore, the domain of SMP personal ornamentation appears to be multiform and much more elaborated than what had been thought until recently (*Mazzieri, Micheli 2012*).

Personal ornaments appear in the central Po Plain in twenty-two graves in Emilia and four burials in the Mantua territory. Steatite adornment objects are attested in only eight burials: their distribution cannot be related clearly to a single gender or specific age group, even if these items seem more characteristic of adult individuals. The use of perforated shells, fossil calcareous tubes of marine worms and Dentalium shells, while rare, is documented in both adult and children female burials. The recent discoveries of two female children's burials at Gaione-Parco del Cinghio (grave 10) and Parma-via Guidorossi (grave 58) are therefore very interesting, since they confirm the practice of adorning the bust of female children with fossil micro-*Dentalium*, perhaps with the purpose of marking their status as children. Perforated animal teeth were already known in Emilia from some discoveries at the Ponte Ghiara, Collecchio and Rivaltella-Ca' Romensini settlements, but the finds from the Parma-via Guidorossi burials provide new evidence about the employment of such adornment items (Mazzieri, Micheli 2012). Perforated teeth of dog or fox are associated with adult fe-

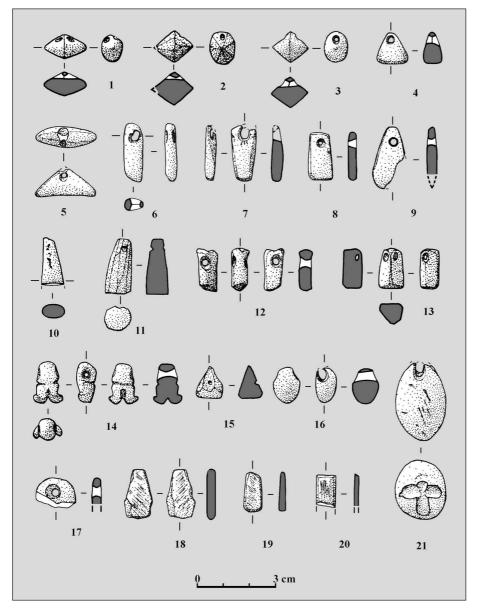


Fig. 11. Steatite pendants from SMP sites in western Emilia. 1, 2, 8-12, 14-17, 21 Gaione - Cascina Catena; 3-5 Reggio Emilia territory (Chierici collection); 6 Travo -Case Marchi; 7, 19, 20 San Ruffino - Villa Greci; 13 Bazzarola; 18 Pontetaro (drawings by R. Micheli, courtesy of Museo Archeologico Nazionale di Parma and Musei Civici di Reggio Emi-

male burials. Perforated red deer canines appear not have been used by SMP people; nevertheless, imitations are attested, such as the steatite pendants at Pontetaro and Gaione (Micheli et al. in press) or a bone specimen in a female grave at Parma-via Guidorossi (Bernabò Brea et al. 2010a.Fig. 21). There is, however, unusual evidence attested at Parma-via Guidorossi (grave 6): an adult female wearing a perforated human canine tooth (Bernabò Brea et al. 2010a.Fig. 20). Such evidence is interesting, but probably not exceptional in the SMP world, because some perforated human incisors were found at the settlement of Fimon-Molino Casarotto in Veneto (Broglio et al. 2004.59, Fig. 5). The practice of transforming human teeth, or other human parts, into objects of adornment is well-known ethnographically, but extremely rare in the archaeological record. A recent review of all available published data in Europe since the Upper Palaeolithic to the Copper Age reveals seventy specimens of perforated human teeth transformed into personal ornaments. The Neolithic evidence is limited to the early phase and restricted to three LBK sites in central Europe (Herxheim and Zeuzleben in Germany, Nitra in Slovakia) and the Dispilio settlement in Greece (*Ifantidis 2010*). Thus, the SMP case is very significant. Such scarcity cannot be due to the lack of raw material, but rather to a choice having various meanings (aesthetic, emotional, magical or religious).

The significance of Spondylus shells in Trentino

The personal ornaments most preferred by the SMP groups of Trentino are *Spondylus* shell beads, some perforated *Columbella rustica* shells and, a recent addition to the list, steatite beads. Objects of local

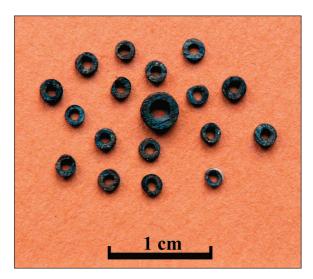


Fig. 12. Steatite microbeads from a burned female burial from Gaione-Cascina Catena (grave 35) (photo R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

origin also appear occasionally, such as pendants obtained from wild boar tusk, perforated red deer canines and perforated pebbles.

Spondylus beads are attested in four graves at La Vela (Bagolini 1990) and in settlement deposits at the Moletta Patone rock-shelter (Bagolini et al. 1984) and Riva del Garda-via Brione. The latter evidence is a recent discovery, confirming their variability in shape and the predilection reserved for such objects by SMP people. In fact, the types found so far are numerous: large cylindrical beads (Fig. 15), short cylindrical specimens and discoidal elements (Fig. 16). A twofold origin is plausible for such artefacts: Spondylus ornaments came via the central Po Plain and Lake Garda from SMP groups settled along the coasts of Liguria, or they spread through the Alpine mountain range from other coeval central European Neolithic groups, where such objects are common.

In Trentino, there are some about thirty SMP burials, but their number is probably higher. The funerary practices include inhumation burials, with interred individuals crouched on the left side and deposited in stone cists or in pits within stone circles, sometimes strewn with red ochre (*Bernabò Brea* et al. 2010a). Such funerary evidence is ascribed mainly to the SMP 2 phase. Burials include grave-goods, counting stone axes, hatches and chisels, ceramic pots and flint arrow-heads and blades, but graves without grave-goods or adornment objects are also known (*Pedrotti 1996; Mottes 1996*). Personal ornaments are few and concentrated in three burials of females of different ages and one burial of a child of

undetermined sex at the important graveyard of La Vela (*Bagolini 1990*). However, the La Vela evidence is interesting because it highlights the personhood of some individuals of the community through body adornment, and in particular, that of a 4–5 year-old child richly adorned with a long necklace and a bracelet formed from around 150 *Spondylus* beads (Fig. 17).

The differences in frequency and richness of gravegoods and the presence of some prestigious or exotic personal ornaments in SMP burials clues to the existence of some kind of hierarchy in SMP society, the features of which are not clear. Some children's burials with rich grave-goods are also known in the central Po Plain, thus it is probable that the identity of such children and their belonging to a certain social group were represented in the grave by these objects. It was, in fact, very unlikely that Spondylus beads of exotic origin from remote territories were passed from hand to hand until they reached a 4-5 year-old child. The LBK evidence shows that such prestigious and valuable objects may have been handed down from generation to generation by some relatives as symbols of their status and power (Jeunesse 1997.116-117).

Steatite beads from Riva del Garda-via Brione (Fig. 18) and La Vela are very similar in typology and dimensions to those of Emilia. From the former site come some microbeads and one small pyramidal pendant, and from the latter, some short cylindrical specimens. Since steatite is not common in the Alps, it is likely that these beads came from western Emilia.

In the SMP domain, perforated *Columbella rustica* shells feature among personal ornaments only in Liguria. Therefore, the specimens from Riva del Gardavia Brione (Fig. 19) and Mezzocorona Borgonuovo (*Bazzanella* et al. 2002) are particularly interesting because of their peculiarity. In fact, such shells are different from other Neolithic *Columbella rustica* specimens from northern Italy: the hole is obtained by abrasion in correspondence with the natural opening. Such perforation suggests a specific way of fixing shells and their probable use as decorative applications instead of the beads of a necklace.

The discoveries made at Riva del Garda-via Brione provide new data about SMP personal ornaments in Trentino and confirm the existence of exchange networks between the central Po Plain groups and those of the central Alpine region via Lake Garda. It seems

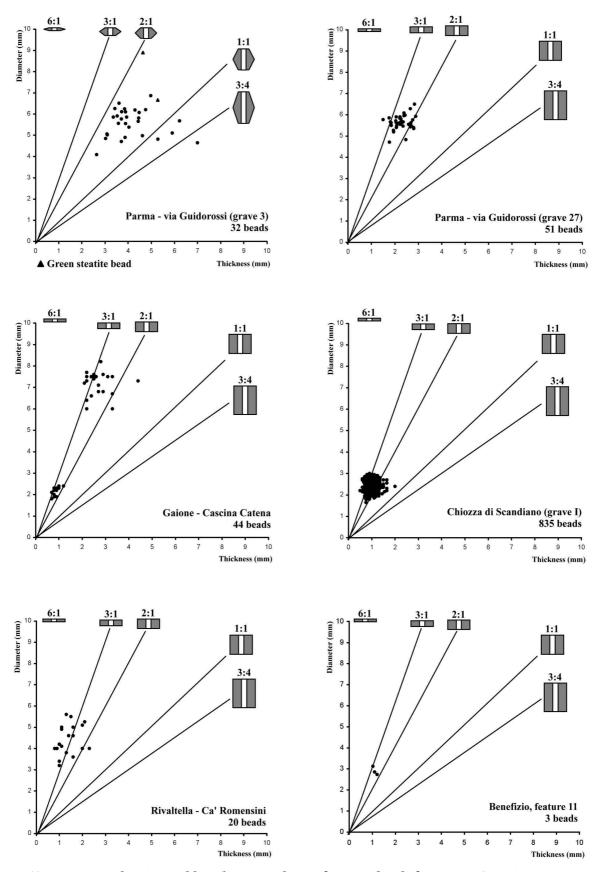


Fig. 13. Dimensional ratios and lengthening indexes of steatite beads from some SMP sites in western Emilia.



Fig. 14. Biconical pendants from Pontetaro settlement (photos R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

that the SMP groups of Trentino preferred personal ornaments of exotic origin that linked them ideally to the place where such objects were procured or manufactured and, perhaps, the territories where SMP culture had its original core, or to other territories and people in central Europe, as the case of the large cylindrical *Spondylus* beads suggest. It is not possible to outline clearly the social identities of SMP groups of the central Alpine region, except in a few instances; however, the data suggest a prevalence of male burials with grave-goods, but without personal ornaments. As documented in other SMP burial contexts, stone axes and arrow-heads are very significant objects, highlighting male identity (*Bernabò Brea* et al. *2010a*).



Fig. 15. Cylindrical Spondylus shell bead from Riva del Garda – via Brione settlement (photo R. Micheli, courtesy of Soprintendenza per i Beni Librari, Archivistici e Archeologici della Provincia di Trento).

Material culture, Neolithic groups and ethnicity: some notes on personal ornaments

"There is usually very little ambiguity or blurring about the tribal group to which a person belongs. Each tribe is characterised by a distinctive style of dress. The people themselves know very clearly whether at any one moment they are identifying with the Pokot, Njemps or Tugen, and this identification is shown overtly in items of dress" (Hodder 1982.18). This is true not only of the Baringo district in Kenya, but for any human groups, because body adornment communicates and strengthens social identities and the sense of belonging through appearance codes which are meaningful in people's lives. Thus, the combination and arrangement of ornamental objects worn or attached to the body distinguish individuals visually, linking them to categories and groups. The distribution and clustering of some of such elements could therefore be useful to distinguish prehistoric groups and bound their cultural borders. In fact, "personal ornaments, perhaps more than any other aspect of the archaeological record, are a point of access for archaeologists into the social world of the past" (White 1992.539), because they share a system of meaning intelligible within a community and aimed at communicating not only intra-group differences, but also regional affiliations and group membership.

In traditional archaeology, there was a tendency to interpret all differences in the material cultures of different groups as permanent ethnic markers, but recent studies point to the inadequacy of these postulates (*Cornell 2004.69*). Ethnicity, and the relationship between cultures and ethnic/tribal groups, remains a problematic aspect of archaeological analysis, because the connection between variations in material culture and the expression of ethnic/tribal distinction is complex (*Ucko 1969; Hodder 1982; Jones 1997*). The difficulty lies in identifying which material characteristics are socially meaningful in a particular social context, and which are irrelevant. A

further problem for archaeologists is to consider which non-material elements might have been important to group identity, and how they would appear in archaeological remains. Recent studies on group identity suggest that differences in almost any cultural features can distinguish one group from another. The

distribution of a pottery style, for example, may not indicate the existence of an ethnic group, but may mark political boundaries or simply the spatial limits of a particular system of distribution (*Emberling 1997.300–311*).

The boundaries of ethnic/tribal groups and the identification of individuals are not stable, because they may change through time and from place to place, often as a result of the manipulation of identity. "In archaeological literature, it has also been suggested that ethnicity is a dynamic and instrumental phenomenon and that material culture is actively used in the justification and manipulation of inter-group rela-

tions' and this can take place by means of stylistic variation. Thus, 'style can be one of the many channels through which identity can be projected to others, and consequently it will be affected by processes of social comparison and determined by the outcome of that comparison in terms of the expression of similarity and difference. Moreover, with reference to social identity and group membership, style may be actively used in the disruption, alteration and creation of social relationship" (Jones 1997.110–111, 113). Nevertheless, items of material culture involved in ethnic symbolism can vary between different groups and the ways through which ethnic boundaries are expressed may involve few aspects of material culture, while other material components spread across such boundaries. The analysis of the personal ornaments of the Tugen, Njemps and Pokot tribal groups reveals, in fact, the importance of some adornment objects as symbolic elements identifying women belonging to specific social groups. Thus, women's earrings and decoration patterns clearly display the affiliation of a female to one tribal group or another. However, there is a difference between the traits associated with male and female, in that items related to men tended to move farther and more easily across borders than female objects. Although many socio-economic interactions exist between the above-mentioned tribes, tribal borders are perfectly preserved in many aspects of material culture, some of which also persist in costumes, particularly of women (*Hodder 1977.253–258; 1982.75–* 86). The reverse case is documented in Sierra Leone: the Limba, Yalunka and Kuranko groups share several common cultural traits, but material culture provides only a limited indication of divisions. Material expressions of group cohesion, social identity and

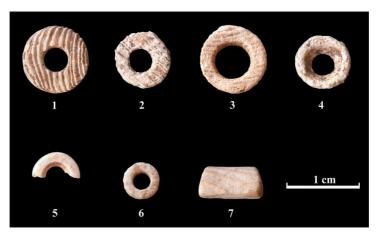


Fig. 16. Spondylus shell beads from Riva del Garda-via Brione settlement (photo R. Micheli, courtesy of Soprintendenza per i Beni Librari, Archivistici e Archeologici della Provincia di Trento).

ethnicity are primarily visible in ritual, and the most important indicators of ethnicity are material aspects of ritual behaviour, such as shrines, rock paintings and burial practices. It is notable that various types of aesthetic expression, a field which is often regarded as an indicator of ethnicity or social identity, are very limited throughout northern Sierra Leone (*DeCorse 1999*). Such interesting observations clearly show that material culture, group membership, social identity and ethnicity often do not correspond or are not usually directly correlated. Moreover, it is difficult to identify such traits in archaeological contexts, because data for the past are often incomplete and poorer than those available for living groups.

During the Early Neolithic, two large cultural spheres existed in northern Italy with specific material cultures and ideologies and probably with their own languages and ethnicities; the distribution of sites and exchange networks of goods and raw materials confirm such distinction.

The Impressed/Cardial Ware culture affected a wide territory, but appears to have been uniform, since its material culture shows little evidence of marked regionalisation. Instead, the Po Plain Neolithic groups show a common cultural identity, but with many regional entities related to each other through intragroups interactions and the circulation of the same commodities (Lessini Mounts flint, green stone artefacts, Fiorano cup, *etc.*). Also, personal ornaments, despite the inadequate data and lack of burials, indicate a twofold body adornment domain. In particular, the wide distribution of green stone ring bracelets highlights the existence of a common aesthe-



Fig. 17. Grave-good from a 4-5 year-old child interment at La Vela (grave III) (after Mottes 2007).

tic of body adornment and the employment of the same permanent ornaments on the body among various Neolithic groups. Thus, ring bracelets can be considered socially meaningful in the context of the Po Plain Neolithic and a trans-cultural component of body ornamentation for such groups.

Perforated Columbella rustica shells might have been similarly important in the Impressed/Cardial world. Nevertheless, the real use of such shells is not yet clear, because they could be variously employed as single pendants, as beads of a necklace or a bracelet, and/or for decorative application on clothes or textile. Therefore, the social significance of wearing Columbella shells is not immediately evident, depending on contexts of employment unfortunately unknown to us. The use of cowrie shells (Cypraea) among the Naga people of northeastern India might clarify this point. Such people employ many kinds of body adornment items (Jacobs 1990.103-115; Saul 2005.31-70), among which cowrie shells are largely appreciated for their aesthetic qualities and brilliance, and as objects conveying information about the status of individuals. This shell is socially very meaningful in the Naga's language of body adornment: nevertheless, its significance is not inherent in the shells or their exotic origin, but on the context in which they are employed as ornament and on their arrangement on clothes forming particular motifs. For the Naga, body adornment is more than a matter of aesthetics: it helps make statements about, and define the identity of individuals and groups. The personal ornaments and clothes of the Naga highlight the group membership of individuals (class age, clan or village), while the colours and motifs of decorative applications on clothes signal achieved status and how it has been attained. Thus, cowrie shells, as decorative applications of clothes, are components of a common language that changes on

the basis of the circumstance of use from one Naga tribal group to another within the same culture. Although there are some Naga personal ornaments that can be worn by anyone, how and when they wish, most adornment items are meaningful, because they are powerful objects that must be handled with care. Indeed, all elements of body adornment are so important in Naga society for displaying personal and social identities that

they are conceived as part of the definition of being truly human. Therefore, they have to be removed from the body at death, since they cannot follow the corpse of the wearer in the grave. I am aware that it is not appropriate to apply ethnographic models to a prehistoric context, but some of the previous observations might be enlightening for explaining some unclear aspects of Italian Neolithic body ornamentation.

The personal ornaments of SMP groups are numerous and their variety allows us to draw a regional pattern of variability depending on the local availability of raw materials, exchange networks of exotic objects and also on the aesthetic or cultural preferences of the different groups. Such regional variability, however, is also due to different chronology, as confirmed by the three SMP pottery styles. During the SMP 1 phase in western Liguria and at the Ponte Ghiara site, in fact, it is possible to recognise the

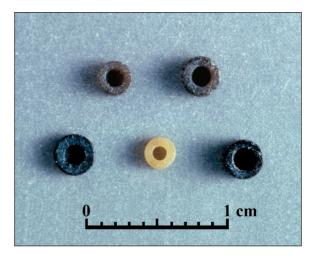


Fig. 18. Steatite microbeads from Riva del Garda – via Brione settlement (photo R. Micheli, courtesy of Soprintendenza per i Beni Librari, Archivistici e Archeologici della Provincia di Trento).

importance of perforated shells and teeth and *Dentalium* shells, although at other Emilia sites of the same phase, steatite beads start to come appear. In the subsequent phase, the evidence in Liguria is scanty, while it is very significant in western Emilia, where many types of steatite bead and pendant spread, along with some perforated shells and teeth, *Dentalium* shells and *Spondylus* beads. The evidence in the Mantua area is not yet very rich, but it is similar to that of Emilia. In the same phase in the Adige valley and the upper Lake Garda areas, *Spondylus* beads are characteristic together with some perforated shells and steatite beads. Finally, during the SMP 3 phase, personal ornaments disappear almost completely.

SMP culture presents a body adornment domain which is more complex and very different from that of other coeval Neolithic groups on the Peninsula. The Ripoli and Serra d'Alto cultures do not have, in fact, a similarly developed range of personal ornamentation, nor do they present the same regional variability, although the contacts and relationships, especially between SMP and Serra d'Alto groups, are well documented during the half of the 5th millennium calBC. Instead, the SMP and Chassey cultures do not seem partly permeable to each other because both entities have two well-established cultural identities, with their individual ideologies and material cultures. Chassey groups spread in Italy from the west during a late phase of the SMP culture, presenting few and not very characteristic decorative objects, although such items are well known in the same cultural sphere in southern France (Courtin, Gutherz 1976; Barge 1982; 1988). Chassey groups did not receive any components of SMP personal ornament traditions during their tenure in northern Italy. A different case is attested in Switzerland with reference to the Chamblandes group of stone cist burials dated to the Middle-Late Neolithic. Such groups and SMP culture are partially coeval and share many traits in their funerary practices: personal ornaments are generally associated with female individuals or the young and children and vary from region to region. As in the SMP world, differences are evident between the burials of Italian Valle d'Aosta and Swiss Vallais and those of the Leman basin; the former have revealed only ring bracelets made of *Glycymeris* and *Charonia* shells, while the latter present mainly wild boar tusk plaques, Charonia shell pendants and Glis type buttons. Thus, the ways in which the dead were adorned in the Chamblandes group might be a manifestation, visible in the funerary domain, of ethnic/tribal differences

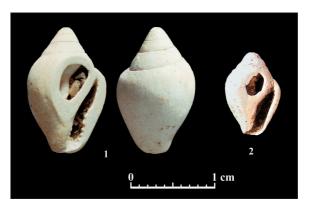


Fig. 19. Perforated Columbella rustica shells from Riva del Garda – via Brione settlement (photo R. Micheli, courtesy of Soprintendenza per i Beni Librari, Archivistici e Archeologici della Provincia di Trento).

within the same cultural sphere (*Moinat* et al. 2007. 305), as in the SMP world. Moreover, it can be argued that such SMP regional variability may be partly rooted in the previous differentiation of early Neolithic groups and in some of their traits transmitted to the SMP culture: Cardial Ware in Liguria, the Vhò group in the central Po Plain and Gaban group in the Adige Valley. Therefore, some of these regional differences might denote the persistence of different ethnic/tribal groups within the SMP world, but this can not be confirmed by other data.

Removable vs. permanent personal ornaments: the relationship with the body

The relationship between the body and ornamental objects worn or attached to it is always transient. In fact, such items associated with appearance are threefold:

- elements permanently attached to the body;
- permanent items fixed to clothes and textiles;
- removable objects.

Permanent objects had a lasting relationship with individuals and must have provided a permanent statement on personhood, because they created fixed identities. In some traditional groups, the relationship of personal ornaments with the body emphasises differences of gender among individuals: for example, male wear only removable items, while females are associated with permanent objects, sometimes not easy to wear, producing some sort of obstacle to movement or even bodily deformation (*Sørensen 1997.101–102*).

The use of ring bracelets as permanent markers of individuals is observed from the Early Neolithic on-

wards among many Europeans groups (Zápotocká 1984; Jeunesse 1997). Therefore, the northern Italian case is perfectly in accord with the rest of Europe. Nevertheless, the significance of such objects among Italian Neolithic groups is not yet clear: we still do not know whether they characterised gender, age class, kinship, social group membership (clan, lineage, village, etc.) or other social features of individuals. Ring bracelets were generally worn on upper arms from a very early age by Neolithic people and worn for many years until they were damaged or until the death of the owner. However, broken bracelets could be reassembled, as in the case of the composed specimens fixed together by means of strings. Composed bracelets do not seem to be only the result of repair, as shown by the burial of Jablines-Longues Raies in France (Bulard et al. 1993), but rather they might be considered as a particular type of bracelet that could be worn and removed easily, especially when made of precious or rare raw materials.

It is clear that the majority of Impressed/Cardial Ware and SMP personal ornaments were employed as removable items on the body (necklaces, bracelets, pendants, etc.) or as decorative applications on clothes. Through the choice of permanent or removable ornaments, a group decided between different looks and chose how to appear before others: permanent objects gave individuals a more static appearance, while removable items created a more original and diversified look. However, such observations leave out the importance of perishable ornaments, of which there are no traces in the Neolithic costume in Italy so far.

There are no clues to the exact use of personal ornaments in the Impressed/Cardial Ware culture and their relationship with the body; nevertheless, we know that removable ornaments could have been employed in many ways. Ring bracelets could have been used as permanent ornaments on arms, usually above the elbow, and, less frequently, on wrists or ankles. The predilection of Po Plain Neolithic groups for objects marking the limb articulations of the body is evident. Personal ornaments of SMP groups are all removable. On the basis of the funerary data, they were employed in various ways: as single pendants or beads of necklaces adorning neck and chest; as beads of bracelets around the wrist; as decoration on a sash or waistband; as ornaments adorning the head, worn directly on the hair or indirectly on perishable diadems and hats. Numerous areas of the body could be adorned, even if the bust seems to have been preferred, because it emphasises the face of the individual and their personality.

Green, white and black: some observations on the Neolithic aesthetic of colours

Colour is everywhere. It is a significant component of the natural environment, but the perception of it through our senses and the perception of its attributes (texture, brightness, etc.) are socially and culturally constructed. Thus, all variations in the perception of colours in one or another human group have their origins in language and not in human physiology. In fact, the use of colours permeating all aspects of the material culture of a human group depends largely on cultural preferences and aesthetic appreciation, but may also be related to wider aspects of ideology and cosmology. It is the result of a continue interaction between people, things and substances of the natural (e.g., mineral) world. For such reasons, the cultural significance of colours has been emphasised in several anthropological and archaeological studies (e.g., Turner 1967; 1969; 1995; Jones, MacGregor 2002; MacLaury et al. 2007).

Since several cultural meanings can be attributed to them, colours play an important role as elements displaying differences in appearance. This is clearly observable since the Neolithic, but probably also earlier. In particular, despite the availability of many types of rock, PPNA and later groups of the Levant have a particular appreciation for green personal ornaments obtained from various stones that are widely reported and sometimes dominate bead assemblages, followed by red specimens forming a structural and probably meaningful opposition with the former (Wright, Garrard 2002.277-278; Bar-Yosef Mayer, Porat 2008). An analogous case, but more articulate, is documented in the Balkans between the Neolithic and the Copper Age, when colour and brilliance become significant features in preferences for objects of the greatest visual significance in social practices, among which personal ornaments are relevant (Chapman 2007; Gaydarska, Chapman 2008).

The cultural or aesthetic preference for some colours for body adornment is also well documented in the Neolithic of northern Italy. The incidence of green ring bracelets is very high in the Early Neolithic series of Vhò and Friulian groups, while it is less relevant in the Fiorano group because fewer precious and locally available stones of other colours were employed. Artefacts made from softer green metaophiolitic stone have two aesthetic qualities

ideal for visual display which made them highly appreciated: a pleasing colour varying from light to dark green and a glossy surface which becomes very smooth with polishing (*Micheli 2012*). As suggested for the Levant, the preference for green specimens during the Early Neolithic might imply certain meanings related to the colour, such as fertility, vegetation, the regeneration or life, but such a hypothesis cannot be corroborated. Nevertheless, a few white shell ring bracelets are also known aside green-coloured specimens attesting a possible chromatic contrast in the employment of such ornaments.

It is also possible to observe a further distinction in the spread of Neolithic ring bracelets between northern Italy and southern France on the basis of raw materials availability, aesthetics preferences and the extension of exchange networks. In the latter areas, in fact, ring bracelets of marble or limestone ranging in colour from white to light grey are very common and reached Liguria without extending to the rest of northern Italy (Courtin, Gutherz 1976). Moreover, there is a strict relationship between the section morphology of the ring and the geological characteristics of the stone employed, since specimens with thin and large triangular sections obtained from green stones appear in Italy without spreading widely in France, where other types of marble or limestone bracelet with a narrow and high oval section are well known.

Regarding shell items, three observations are possible about aesthetics and brilliance. Firstly, some fresh shells were collected solely for their beautiful shapes, colours and shine, having no use as food or tools. In such cases, the possibilities of choice are as many as the qualities of the shells available in the sea or along the coasts. Secondly, the process of production of elaborated personal ornaments usually removes most of the colour and brilliance, as well as the characteristic morphology of the original external surface of shells. This means that elaborated ornaments are generally white, although some Spondylus ring bracelets retain reddish traces of the original colour. Thirdly, fossil shells do not usually preserve their original colour and shine, but are white or light grey and opaque. All three cases have been documented in various forms for the Early and Middle Neolithic in northern Italy.

Colour contrast and opposition in SMP body adornment can be identified, thanks to some evidence. At Parma-via Guidorossi (grave 58), the burial of a 2-5 year-old child included a fossil micro-*Dentalium*

necklace with some shells with traces of red ochre inside, suggesting a thread soaked in red pigment (Fig. 20). Thus, the necklace presents a red-white opposition. The use of red mineral pigments on the body of the SMP dead is documented in Liguria and some graves of Trentino. In particular, the analysis of the red pigment in grave III at La Vela indicates the use of cinnabar, a mineral mainly characteristic of the Amiata Mount formations in Tuscany (Dal Rì et al. 2001). Such pigment was used to cover the upper part of the corpse, but it was also employed to colour the Spondylus beads with a thin film of pigment mixed with clay. While in the case of Parmavia Guidorossi the purpose was to create a chromatic opposition between the thread and the shells, in the latter case it was clearly the intention to change the white colour of the worked Spondylus artefacts to red, like the original *Spondylus* shell.

Further evidence for the preference for some particular colour is the high incidence of black or dark grey steatite personal ornaments. In the northern Apennines, green is the prevailing steatite colour in the outcrops, although other colours are present (beige, brown, dark red, black and grey). The use of green or other colours is, however, very limited and occasional, while the occurrence of dark colour ornaments is around 95% or more of the total known. Since black steatite is not common in the deposits, its large procurement cannot have been casual, as it involved a specific and thorough survey by SMP prospectors of the localities where it was available. Such choice depends on an aesthetic preference for using black or dark grey steatite as beads for totally dark necklaces, or to match other light-



Fig. 20. Micro-Dentalium with red pigment traces inside, from a necklace of a 2-5 year-old child interment at Parma – via Guidorossi (grave 58) (photo R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

coloured ornaments, such as white perforated shells or beige teeth to form composite necklaces. Nevertheless, a chromatic opposition could be also obtained by mixing differently coloured steatite beads, as in the case of the outstanding necklace worn by an adult male in a grave at Parma-via Guidorossi (Fig. 21). Pyro-technological treatments of steatite artefacts intended to change their natural colours by means of thermal alteration have not yet been documented for SMP culture. The preference for certain colours and for chromatic contrasts in SMP personal ornaments was probably essential for reproducing views about the world and for constructing differences and oppositions between individuals through body adornment.

Concluding remarks

Through body adornment, individuals can communicate many messages and information about their biological status and gender, their social and economic position, their kingship and/or membership of a larger social group. This happens by means of a variety of perishable and inorganic materials and of various shapes and colours. Thus, body ornamentation is a powerful and meaningful mediation of social categories and identities, containing many codes that can be read and immediately understood without ambiguity about their meaning, as the ethnographic evidence suggests. As I have shown throughout this paper, personal ornaments, just as other components of body adornment, highlight similarities, differences or oppositions between individuals which can be used to affirm the identity of both individuals and groups.

Although in traditional societies body adornment is more uniform and standardised within the same social group, making its codes more legible than those of our complex western society, the reconstruction of identities in prehistoric contexts is not an easy task. The archaeological data are often incomplete and not homogeneously available for sites and territories, limiting our knowledge of the past, as in the case of the very low occurrence of Early Neolithic graves in northern Italy. Moreover, personal ornaments do not feature in all burials, but only in some, as in SMP and Chamblandes funerary practises. This implies that the identities of the dead were not only highlighted by personal ornamentation, but also by other symbolic elements that were not necessarily imperishable like those of grave-goods. Objects of adornment seem, instead, not very relevant in the Neolithic funerary practises of the Impressed/Cardial Ware, Ripoli, Serra d'Alto and Chassey cultures for highlighting the personal and social identities of the dead. Moreover, we should not neglect the importance of perishable items in Neolithic body adornment, items which appear in many traditional living societies.

From what I have described above, the importance of personal ornaments and raw materials in highlighting some Neolithic groups and their identities, as well as the identities of some individuals within such groups, is clear. The same cannot yet be said of the Impressed/Cardial Ware culture, while it is evident in the case of Po Plain Neolithic groups, among which ring bracelets are a characteristic type of body adornment identifying groups with their own traditions and identities, but within a larger and common cultural sphere. The importance of personal ornaments is very clear within the body adornment tradition of SMP culture, given the differences in the ways each group adorned its individuals, thus displaying cultural particularities' denoting different ethnic/tribal groups within the SMP world, although such statement cannot be corroborated by other data. However, the Baringo district and the Naga examples concerning the meaning and context of personal ornamentation and the group membership of individuals can be helpful in understanding some points of the SMP case.

As I have stressed many times in this paper, the SMP ornamentation system is more complex and multi-



Fig. 21. Chromatic contrast in a steatite bead necklace from an adult male interment at Parma-via Guidorossi (grave 3) (photo R. Micheli, courtesy of Museo Archeologico Nazionale di Parma).

form than that of previous Early Neolithic groups; many identities probably appeared in SMP culture as a consequence of new personhoods created by new kinds of social groupings, new embodied skills and new raw materials during the Middle Neolithic. The data for the earlier Neolithic phase are, however, still too scarce. Except for a few standardised objects that provide some clues about past identities, SMP personal ornaments appear too various and elaborate: individuals adorned themselves in many different ways in order to stand out, and this is true not only of different SMP regional groups, but also within individual SMP social groups. Although the SMP personal ornaments are generally numerous, it is difficult to decipher their codes fully and understand their meanings.

This paper has presented a picture of personal ornaments used between 5600 and 4300 calBC, showing how in some case body adornment had long-lasting traditions and in other cases was temporally limited, and how some of its components spread over very large areas, while others were restricted to only one region. It has also shown the variation in raw materials, shapes and colours and how such elements were often meaningful in constructing past identities. Certainly, many aspects of the personal and social identities of the Neolithic groups of northern Italy remain unknown. This will be possible only through new discoveries of Neolithic burials preserving rich grave-goods and personal ornaments, which might significantly increase the available data and offer new detailed information about the past identities of Neolithic people and their multiform complexity.

•••

References

Alvarez Fernandez E. 2003. Die Reise der Schnecke *Columbella rustica* während des Mesolithikums und zu Beginn des Neolithikums in Europa. *Archäologisches Korrespondenzblatt* 33(2): 157–166.

Bagolini B. 1990. Cultura dei Vasi a Bocca Quadrata. Il sepolcreto neolitico de La Vela di Trento. In *Die ersten Bauern. Pfahlbaufunde Europas, Band 2.* Schweizerisches Landesmuseum, Zurich: 225–231.

1992. Il Neolitico dell'Italia settentrionale. In A. Guidi, M. Piperno (eds.), *Italia preistorica*. Laterza, Bari: 274–304.

Bagolini B., Grifoni Cremonesi R. 1994. Il Neolitico italiano: facies culturali e manifestazioni funerarie. *Bullettino di Paletnologia Italiana 85, n.s. III: 139–170.*

Bagolini B., Corrain C., Dalmeri G., Leoni M., Novello A., Pasquali T. and Riedel A. 1984. Il riparo di Moletta Patone di Arco nel Trentino meridionale. *Preistoria Alpina* 20: 103–146.

Barge H. 1982. *Les parures du Néolithique ancien au début de l'Âge des Métaux en Languedoc*. Edition du CNRS. Paris.

1987. Les parures du Néolithique ancien dans le Midi de la France. In J. Guilaine (ed.), *Premières communautés paysannes en Méditerranée occidentale*. Actes du colloque international du CNRS. (Montpellier, 26–29 avril 1983). Edition du CNRS, Paris: 567–574.

1988. Les parures chasséennes en Languedoc oriental. In *Le Chasséen en Languedoc oriental. Hommage à Jean Arnal*. Actes des Journées d'Etudes (Montpellier, octobre 1985). Publication de la Recherche. Montpellier: 223–230.

Bar-Yosef Mayer D. E., Porat N. 2008. Green stone beads at the dawn of agriculture. *Proceedings of the National Academy of Sciences of the USA 105(25): 8548–8551.*

Bazzanella M., Moser L., Mottes E. and Nicolis F. 2002. I livelli neolitici del sito di Mezzocorona-Borgonuovo (Trento). Dati preliminari. In *Preistoria e protostoria del Trentino Alto Adige/Südtirol, In ricordo di B. Bagolini*. Atti della XXXIII Riunione Scientifica dell'Istituto Italiano di Preistoria e Protostoria (Trento, 21–24 ottobre 1997), vol. I., Firenze: 311–326.

Bernabò Brea L. 1946. Gli scavi nella Caverna delle Arene Candide (Finale Ligure). Parte prima: gli strati con ceramiche, vol. I. Istituto di Studi Liguri. Bordighera.

1956. Gli scavi nella Caverna delle Arene Candide (Finale Ligure). Parte prima: gli strati con ceramiche, vol. II. Istituto di Studi Liguri. Bordighera.

Bernabò Brea M., Mazzieri P. and Micheli R. 2010a. People, dogs and wild game evidence of human-animal relations from Middle Neolithic burials and personal ornaments in northern Italy. In M. Budja (ed.), 17th Neolithic Studies, Documenta Praehistorica 37: 125–145.

Bernabò Brea M., Maffi M., Mazzieri P. and Salvadei L. 2010b. Testimonianze funerarie della gente dei Vasi a Bocca Quadrata in Emilia occidentale. Archeologia e antropologia. *Rivista di Scienze Preistoriche LX: 63–126*.

Beyneix A. 1997. Les sépultures cardiales et épicardiales de France méridionale. *Bulletin de la Société Préhisto-rique Française* 94(2): 191–197.

Biagi P. 2003. A Review of the Late Mesolithic in Italy and Its Implication for the Neolithic Transition. In A. J. Ammerman. P. Biagi (eds.), *The Widening Harvest. The Neolithic Transition in Europe: Looking Back, Looking Forward*. Colloquia and Conference Papers 6. Archaeological Institute of America, Boston: 133–155.

Biagi P., Starnini E. and Voytek B. 1993. The Late Mesolithic and Early Neolithic of Northern Italy: Recent Consideration. *Poročilo o raziskovanju paleolita, neolita in eneolita v Sloveniji 21: 45–67.*

Binder D. 2000. Mesolithic an Neolithic interaction in southern France and northern Italy: new data and current hypotheses. In T. D. Price (ed.), *Europe's First Farmers*. Cambridge University Press, Cambridge: 117–143.

Binder D., Maggi R. 2001. Le Néolithique ancien de l'arc liguro-provençal. *Bulletin de la Société Préhistorique Française* 98(3): 411–422.

Bisconti M., Zamagni B. 2007. Elementi di parure e pseudomanufatti da Cala Giovanna Piano: conchiglie, pietra e osso. In C. Tozzi, M. C. Weiss (eds.), *Preistoria e protostoria dell'area tirrenica*. Interreg III Toscana, Corsica e Sardegna. Felci editore, Pisa: 135–143.

Bonato M., Lorenzi F., Nonza A., Radi G., Tozzi C., Weiss M. C. and Zamagni B. 2000. Le nuove ricerche a Pianosa. Gli scavi del 1998. In C. Tozzi and M. C. Weiss (eds.), *Il primo popolamento olocenico dell'area corso-toscana*. Interreg II Toscana – Corsica, 1997–1999. Edizioni ETS, Pisa: 91–115.

Borrello M. A. 2003. Le parures en corail et en coquillage des niveaux néolithiques de la Caverne d'Arene Candide. *Bollettino dei Civici Musei Genovesi 55–63 (1997–1999), XIX–XXI: 83–91.*

Borrello M. A., Dalmeri G. 2005. Gli ornamenti lavorati in conchiglie conservati presso il Museo Tridentino di Scienze Naturali (Trento). In M. A. Borrello (ed.), *Conchiglie e Archeologia. Preistoria Alpina 40 (2004), suppl. 1:* 43–52.

Borrello M. A., Micheli R. 2011. Spondylus gaederopus in Prehistoric Italy: Jewels from Neolithic and Copper Age Sites. In F. Ifantidis, M. Nikolaidou (eds.), *Spondylus in* Prehistory: New Data and Approaches – Contributions to the Archaeology of Shell Technologies. BAR IS 2216. Archeopress, Oxford: 25–37.

Brandaglia M. 2000. La cultura del Neolitico antico del «Serotino», Le Secche di Isola del Giglio. In C. Tozzi, M. C. Weiss (eds.), *Il primo popolamento olocenico dell'area corso-Toscana*. Interreg II Toscana – Corsica 1997–1999. Edizioni ETS, Pisa: 123–132.

Broglio A., Cilli C., Giacobini G., Guerreschi A., Malerba G. and Villa G. 2004. Typological and Technological Study of Prehistoric Implements in Animal Hard Tissues. *Collegium Antropologicum* 28(1): 55–61.

Bulard A., Degros J., Drouhot C., Duhamel P. and Tarrete J. 1993. L'habitat des Longues Raies à Jablines (Seine-et-Marne). In *Le Néolithique au quotidien*. Actes du XVIe colloque interrégional sur le Néolithique (Paris, 5–6 novembre 1989), Documents d'Archéologie Française, 39. Editions de la Maison des Sciences de l'Homme, Paris: 41–62.

Castagna D., Gazzoni V., Berruti G. L. F. and De March M. in press. Studio preliminare sulle sepolture neolitiche del territorio mantovano: i casi di Bagnolo San Vito e San Giorgio. In M. Bernabò Brea, R. Maggi and A. Manfredini (eds.), *Il pieno sviluppo del Neolitico in Italia*. Atti del convegno (Finale Ligure, 8–10 giugno 2009). *Rivista di Studi Liguri LXXVI-LXXVII*.

Chapman J. 2007. Engaging with the exotic: the production of early farming communities in south-east and central Europe. In M. Spataro, P. Biagi (eds.), *A Short Walk through the Balkans: the First Farmers of the Carpathian Basin and Adjacent Regions.* Proceedings of the conference (London, 20th-22nd June 2005), Quaderno 12. Società per la Preistoria e Protostoria della Regione Friuli Venezia Giulia, Trieste: 207–222.

Chapman J., Gaydarska B. 2011. Can we reconcile individualisation with relational personhood. A case study from the Early Neolithic. In M. Budja (ed.), 18th Neolithic Studies, Documenta Praehistorica 38: 21–43.

Constantin C., Vachard D. 2004. Anneaux d'origine méridionale dans le Rubané récent du Bassin parisien. *Bulletin de la Société Préhistorique Française 101(1): 75–83*.

Cordwell J. M. 1979. The Very Human Arts of Transformation. In J. M. Cordwell, R. A. Schwarz (eds.), *The Fabrics of Culture. The Anthropology of Clothing and Adornment.* Mouton Publishers, The Hague: 47–75.

Cornell P. 2004. Social Identity, the Body and Power. In F. Fahlander, T. Oestigaard (eds.), *Material Culture and Other Things. Post-disciplinary Studies in the 21st Century*. Elanders Gotab, Gothenburg: 57–92.

Courtin J. 2000. Les premiers paysans du Midi. Histoire de la France préhistorique de -6000 à -4500 ans. Le Maison des Roches. Paris.

Courtin J., Gutherz X. 1976. Les bracelets de pierre du Néolithique méridional. *Bulletin de la Société Préhisto-rique Française* 73(1): 352–369.

Dal Ri C., Pedrotti A. and Volpin S. 2001. La Vela (TN), excavation campaigns 1987–988. Mineralogical and chemical analysis carried out on red-pigmented finds in grave n.3. In *Preistoria e protostoria del Trentino Alto Adige/Südtirol. In ricordo di B. Bagolini*. Atti della XXXIII Riunione Scientifica dell'Istituto Italiano di Preistoria e Protostoria (Trento, 21–24 ottobre 1997). *Preistoria Alpina* 33(1997): 5–10.

Dal Santo N., Mazzieri P. 2010. Il sito di VBQ iniziale di Ponte Ghiara (Parma). Le industrie litiche e ceramiche. *Origini IV: 105–160*.

Delfino E. 1981. Liguria preistorica. Sepolture dal Paleolitico superiore all'età del Ferro in Liguria e nell'area ligure. Sabatelli. Savona.

Del Lucchese A. 1997. The Neolithic burials from Arene Candide Cave. In R. Maggi (ed.), *Arene Candide: a functional and environmental assessment of the Holocene sequence (Excavations Bernabò Brea-Cardini 1940–50). Memorie 5.* Istituto Italiano di Paleontologia Umana, Roma: 605–609.

DeCorse C. R. 1999. Material aspects of Limba, Yalunka and Kuranko ethnicity: archaeological research in northeastern Sierra Leone. In S. Shennan (ed.), *Archaeological Approaches to Cultural Identity*. One World Archaeology 10. Routledge, London: 125–140.

Ducci S., Guerrini M. V. and Perazzi P. 2000. L'insediamento della Scola (Isola di Pianosa, Comune di Campo nell'Elba, LI). In C. Tozzi, M. C. Weiss (eds.), *Il primo popolamento olocenico dell'area corso-toscana*. Interreg II Toscana – Corsica, 1997–1999. Edizioni ETS, Pisa: 83–90.

Emberling G. 1997. Ethnicity in Complex Societies: Archaeological Perspectives. *Journal of Archaeological Research* 5(4): 295–343.

Ferrari A., Mazzieri P. and Steffé S. 2006. La fine della Cultura di Fiorano e le prime attestazioni della Cultura dei vasi a bocca quadrata: il caso del Pescale (Prignano sul Secchia, Modena). In A. Pessina, P. Visentini (eds.), *Preistoria dell'Italia settentrionale. Studi in ricordo di Bernardino Bagolini*. Proceedings of the conference (Udine, 23rd–24th September 2005). Museo Friulano di Storia Naturale, Udine: 103–128.

Fisher G., Loren D. D. 2003. Introduction to the Embodying Identity in Archaeology. *Cambridge Archaeological Journal* 13(2): 225–230.

Fowler C. 2004. *The Archaeology of Personhood. An anthropological approach*. Routledge. London.

Franco C. 2011. *La fine del Mesolitico in Italia. Identità culturale e distribuzione territoriale degli ultimi cacciatori-raccoglitori*. Quaderno 13. Società per la Preistoria e Protostoria della Regione Friuli Venezia Giulia. Trieste.

Gaydarska B., Chapman J. 2008. The aesthetics of colour and brilliance – or Why were prehistoric persons interested in rocks, minerals, clays and pigments? In R. I. Kostov, B. Gaydarska and M. Gurova (eds.), *Geoarchaeology and Archaeomineralogy*. Proceedings of the International Conference (Sofia, 29th–30th October 2008). St. Ivan Rilski, Sofia: 63–66.

Grifoni Cremonesi R. 1992. Il Neolitico nell'Italia centrale e in Sardegna. In A. Guidi, M. Piperno (eds.), *Italia preistorica*. Laterza, Bari: 306–331.

2003. I culti e i rituali funerari. In M. A. Fugazzola Delpino, A. Pessina and V. Tiné (eds.), *Le Ceramiche Impresse nel Neolitico antico. Italia e Mediterraneo*. Studii di Paletnologia, I (2002). Istituto Poligrafico e Zecca dello Stato, Roma: 209–219.

Guilaine J., Manen C. 2007. From Mesolithic to Early Neolithic in the western Mediterranean. In A. Whittle, V. Cummings (eds.), *Going Over: The Mesolithic-Neolithic Transition in North-West Europe.* Proceedings of the British Academy 144. Oxford University Press, Oxford: 21–51.

Hodder I. 1977. The distribution of material culture items in the Baringo District, Western Kenya. *Man 12(2): 239–269*

1979. Economic and Social Stress and Material Culture. *American Antiquity 44(3): 446–454*.

1982. Symbols in action. Ethnoarchaeological studies of material culture. Cambridge University Press. Cambridge.

Ifantidis F. 2010. Human teeth, "human" ornaments: a note on a human tooth-pendant from Neolithic Dispilio W. Macedonia, Greece. In N. Merouses, E. Stefané and M. Nikolaidou (eds.), *Iris*. Μελετες στη μνημη της καθηγητριας Αγγελικης Πιλαλη-Παπαστεριου. Kornelia Sfakianaki Editions, Thessaloniki: 201–211(in Greek).

Issel A. 1908. *Liguria geologica e preistorica*. Atti della Società Ligure di Storia Patria XL. Genova.

Jacobs J. 1990. The Nagas, Hill Peoples of Northeast India. Society, Culture and the Colonial Encounter. Thames and Houston. London.

Jeunesse C. 1995. Les anneaux-disques irréguliers du Sud de la plaine du Rhin supérieur et la question des bracelets en pierre du Néolithique danubien. *Cahiers Alsaciens d'Archéologie d'Art et d'Histoire 38*: 5–34.

1997. Pratiques funéraires au Néolithique Ancien. Sépultures et nécropoles danubiennes 5500-4900 av. I.-C. Errance. Paris.

Joffroy R. 1972. Sépulture néolithique de Cys-la-Commune (Aisne). *Antiquités Nationales 4: 22–28*.

Jones S. 1997. *The Archaeology of Ethnicity. Constructing identities in the past and present.* Routledge. London.

Jones A., MacGregor G. (eds.) 2002. *Colouring the Past. The Significance of Colour in Archaeological Research*. Berg. Oxford.

Kuhn S. L., Stiner M. C. 2007. Body Ornamentation as Information Technology: Towards an Understanding of the Significance of Early Beads. In P. Mellars, K. Boyle, O. Bar-Yosef and C. Stringer (eds.), *Rethinking the human revolution: new behavioural and biological perspectives on the origin and dispersal of modern humans*. McDonald Institute for Archaeological Research, Cambridge: 45–54.

MacLaury R. E., Paramei G. V. and Dedrick D. (eds.) 2007. Anthropology of Color. Interdisciplinary multilevel modeling. John Benjamins Publishing Company, Amsterdam, Philadelphia.

Maggi R. 1997. The radiocarbon chronology. In R. Maggi (ed.), Arene Candide: a functional and environmental assessment of the Holocene Sequence (Excavations Bernabò Brea-Cardini 1940–50), Memorie 5. Istituto Italiano di Paleontologia Umana, Roma: 33–52.

Malone C. 2003. The Italian Neolithic: A Synthesis of Research. *Journal of World Prehistory 17(3): 235–312*.

Manen C., Sabatier P. 2003. Chronique radiocarbone de la néolithisation en Méditerranée nord-occidentale. *Bulletin de la Société préhistorique française 100(3): 479–504*.

Mazzieri, P., Micheli R. 2008. Parma-Benefizio, struttura 11: resti di un atelier di lavorazione dei vaghi di collana in steatite del Neolitico medio. *Padusa XLII (2007): 7–23*.

in press. Tradizioni funerarie e ornamenti personali: alcune osservazioni dalla sfera VBQ emiliana alla luce delle ultime scoperte. In M. Bernabò Brea, R. Maggi

and A. Manfredini (eds.), *Il pieno sviluppo del Neolitico in Italia*. Atti del convegno (Finale Ligure, 8–10 giugno 2009). *Rivista di Studi Liguri LXXVI–LXXVII*.

Micheli R. 2003. Gli ornamenti. In M. A. Fugazzola Delpino, A. Pessina and V. Tiné (eds.), *Le Ceramiche Impresse nel Neolitico antico. Italia e Mediterraneo*. Studi di Paletnologia, I (2002). Istituto Poligrafico e Zecca dello Stato, Roma: 269–288.

2005. Ornamenti in conchiglia del Neolitico dell'Italia settentrionale. In M. A. Borrello (ed.), *Conchiglie e Archeologia. Preistoria Alpina 40, suppl. 1: 53–70.*

2006a. Bracciali in conchiglia del Neolitico italiano: distribuzione, inquadramento culturale e tecnologia. In A. Pessina, P. Visentini (eds.), *Preistoria dell' Italia Settentrionale. Studi in ricordo di Bernardino Bagolini*. Atti del Convegno (Udine, 23–24 settembre 2005). Museo Friulano di Storia Naturale, Udine: 437–446.

2006b. La conchiglia e il dente. Ornamenti neolitici in materia dura animale dell'Emilia. In A. Pessina, P. Visentini (eds.), *Preistoria dell'Italia Settentrionale. Studi in ricordo di Bernardino Bagolini*. Atti del Convegno (Udine, 23–24 settembre 2005). Museo Friulano di Storia Naturale, Udine: 447–452.

2012. Raw materials, personal ornaments and Neolithic groups: some observations on stone bracelets of the Early Neolithic of northern Italy. In M. Borrell, F. Borrell, J. Bosch, X. Clop and M. Molist (eds.), *Xarxes al Neolitic. Networks in the Neolithic. Raw materials, products and ideas circulation in the Western Mediterranean basin (VII-III millennium BC)*. Proceedings of the International Conference. Gavà and Bellaterra – Barcelona, February 2nd–4th 2011. *Rubricatum 5:* 241–248.

Micheli R., Ferrari P. and Mazzieri P. in press. Ornamenti personali in pietra e sfruttamento della steatite: nuovi dati dalla sfera culturale dei vasi a bocca quadrata dell' Emilia occidentale. In E. Mottes (ed.), *Vasi a bocca quadrata. Evoluzione delle conoscenze, nuovi approcci interpretativi*. Atti del convegno (Riva del Garda, 13–15 maggio 2009), Trento.

Micheli R., Mazzieri P. 2012. The circle and the square: steatite exploitation for personal ornaments manufacturing during the Middle Neolithic in northern Italy. In M. Borrell, F. Borrell, J. Bosch, X. Clop and M. Molist (eds.), *Xarxes al Neolític. Networks in the Neolithic. Raw materials, products and ideas circulation in the Western Mediterranean basin (VII-III millennium BC)*. Proceedings of the International Conference. Gavà and Bellaterra – Barcelona, February 2nd–4th 2011. *Rubricatum 5:* 233–240.

Moinat P., Baudais D., Honegger M. and Mariéthoz F. 2007. De Bramois au Petit-Chasseur, une synthèse des pratiques funéraires en Valais central entre 4700 et 3800 av. J.-C. In P. Moinat, P. Chambon (eds.), *Les cistes de Chamblandes et la place des coffres dans les pratiques funéraires du Néolithique moyen occidental*. Actes du colloque (Lausanne, 12–13 mai 2006). Cahiers d'archéologie romande 110 and Mémoire de la Société préhistorique française XLIII, Lausanne and Paris: 297–308.

Mottes E. 1996. Le sepolture neolitiche di Pederzano-Pal Alto e le tombe a cista della regione atesina. In U. Tecchiati (ed.), *Dalle radici della storia. Archeologia del Comun Comunale Lagarino: storia e forme dell'insediamento dalla preistoria al Medio Evo*. Museo Civico di Rovereto e Comune di Villa Lagarina, Rovereto: 87–96.

(ed.) 2007. Spirali del tempo, meandri del passato. Gli scavi archeologici a La Vela di Trento dal 1960 al 2007. Sopritendenza per i Beni Archeologici, Trento

Mottes M., Petrucci G., Rottoli M. and Visentini P. 2010. Evolution of the Square Mouthed Pottery Culture in Trentino-Alto Adige, Veneto and Friuli: cultural, chronological and environmental aspects. *Gortania. Geologia, Paleontologia, Paletnologia 31(2009): 97–124*.

Negrino F., Salzani P. and Venturino Gambari M. 2004. La circolazione delle materie prime tra il Neolitico e l'età del Rame nel Piemonte sud-orientale. In M. Venturino Gambari (ed.), *Alla conquista dell'Appennino. Le prime comunità delle valli Curone, Grue e Ossona*. Omega edizioni, Torino: 190–202.

Nieszery N., Brienl L. 1993. Zur Trageweise des Spondylusschmucks in der Linearbandkeramik. *Archäologisches Korrespondenzblatt 23(4): 427–438*.

Newell R. R., Kielman D., Constandse-Westermann T. S., Van Der Sanden W. A. B. and Van Gijn A. 1990. *An Inquiry Into the Ethnic Resolution of Mesolithic Regional Groups: The Study of Their Decorative Ornaments in Time and Space*. E. J. Brill. Leiden.

Pessina A. 1998. Aspetti culturali e problematiche del primo Neolitico dell'Italia settentrionale. In A. Pessina, G. Muscio (eds.), *Settemila anni fa... il primo pane. Ambiente e culture delle società neolitiche*. Museo Friulano di Storia Naturale, Udine: 95-105.

Pessina A., Tiné V. 2008. Archeologia del Neolitico. L'Italia tra VI e IV millennio a.C. Carocci. Roma.

Pedrotti A. 1996. La pietra levigata nei corredi delle sepolture neolitiche dell'Italia settentrionale In *Le vie della*

pietra verde. L'industria litica levigata nella preistoria dell'Italia settentrionale. Omega edizioni, Torino: 150-163.

Rigaud S. 2011. La parure: traceur de la géographie culturelle et des dynamiques de peuplement au passage Mésolithique-Néolithique en Europe. Unpublished PhD thesis. University of Bordeaux 1. Bordeaux.

Roach M. E., Eicher J. B. 1979. The Language of Personal Adornment. In J. M. Cordwell, R. A. Schwarz (eds.), *The Fabrics of Culture. The Anthropology of Clothing and Adornment*. Mouton Publishers, The Hague: 9–21.

Saul J. D. 2005. *The Naga of Burma. Their Festivals, Customs and Way of Life*. Orchid Press. Bangkok.

Simone Zopfi L. 2004. La neolitizzazione nell'Oltrepò pavese. In M. Venturino Gambari (ed.), *Alla conquista dell' Appennino. Le prime comunità delle valli Curone, Grue e Ossona*. Omega edizioni, Torino: 89–94.

Skeates R. 2003. Radiocarbon Dating and Interpretations of the Mesolithic-Neolithic Transition. In A. J. Ammerman, P. Biagi (eds.), *The Widening Harvest. The Neolithic Transition in Europe: Looking Back, Looking Forward.* Colloquia and Conference Papers 6. Archaeological Institute of America, Boston: 157–187.

Sørensen M. L. S. 1997. Reading the dress: The construction of social categories and identities in Bronze Age Europe. *Journal of European Archaeology* 5(1): 93–114.

Starnini E., Voytek B. 1997. New lights on old stones: the ground stone assemblage from the Bernabò Brea excavation at Arene Candide. In R. Maggi (ed.), Arene Candide: a functional and environmental assessment of the Holocene Sequence (Excavations Bernabò Brea-Cardini 1940–50), Memorie 5. Istituto Italiano di Paleontologia Umana, Roma: 427–511.

Starnini E., D'Amico C., Biagi P., Ghedini M. and Pitti G. 2004. Strumenti in pietra levigata dalla Lombardia orientale: aspetti archeometrici e culturali. *Bullettino di Paletnologia Italiana 95, n.s. XIII: 21–82.*

Steiner C. B. 1990. Body Personal and Body Politic. Adornment and Leadership in Cross-Cultural Perspective. *Anthropos* 85: 431–445.

Strathern A., Strathern M. 1971. *Body Decoration in Mount Hagen*. University of Toronto Press. Toronto.

Taborin Y. 1974. La parure en coquillage de l'Épipaléolithique au Bronze ancien en France. *Gallia Préhistoire 17* (2): 307-417.

Tanda G. 1977. Gli anelloni litici italiani. *Preistoria Alpina 13: 111–155*.

Traversone B. 1999. Le parures. In S. Tiné (ed.), *Il Neolitico nella Caverna delle Arene Candide (scavi 1972–1977)*. Istituto Internazionale di Studi Liguri, Bordighera: 283–298, 518–533, 580.

Turner T. 1969. Tchikrin: A Central Brazilian Tribe and Its Symbolic Language of Bodily Adornment. *Natural History* 78(8): 50–59, 70.

1995. Social Body and Embodied Subject: Bodiliness, Subjectivity, and Sociality among the Kayapo. *Cultural Anthropology* 10(2): 143–170.

Turner V. 1967. *The Forest of Symbols. Aspects of Ndembu Ritual*. Ithaca. New York.

Ucko P. J. 1969. Ethnography and archaeological interpretation of funerary remains. *World Archaeology 1(2): 262–80*

Vanhaeren M., D'Errico F. 2006. Aurignacian ethno-linguistic geography of Europe revealed by personal ornaments. *Journal of Archaeological Science* 33: 1–24.

Van Willigen S. 2004. Aspects culturels de la néolithisation en Méditerranée occidentale: le Cardial et l'Épicardial. Bulletin de la Société préhistorique française 101(3): 463-495. Vidale M. 1992. *Produzione artigianale protostorica. Etnoarcheologia e archeologia*. Saltuarie dal laboratorio del Piovego. Padova.

White R. 1992. Beyond Art: Toward an Understanding of the Origin of Material Representation in Europe. *Annual Review of Anthropology 21: 537–564*.

2007. Systems of Personal Ornamentation in the Early Upper Palaeolithic: Methodological Challenges and New Observations. In P. Mellars, K. Boyle, O. Bar-Yosef and C. Stringer (eds.), *Rethinking the human revolution: new behavioural and biological perspectives on the origin and dispersal of modern humans.* McDonald Institute for Archaeological Research, Cambridge: 287–302.

Wright K., Garrard A. 2003. Social identities and the expansion of stone bead-making in Neolithic Western Asia: new evidence from Jordan. *Antiquity* 77: 267–284.

Zápotocká M. 1984. Armringe aus Marmor und anderen Rohstoffen im jüngeren Neolithikum Böhmens und Mitteleuropas. *Památky Archeologické LXXV: 50–132*.

Zilhão J. 2007. The Emergence of Ornaments and Art: An Archaeological Perspective on the Origins of 'Behavioural Modernity'. *Journal of Archaeological Research 15: 1–54.*