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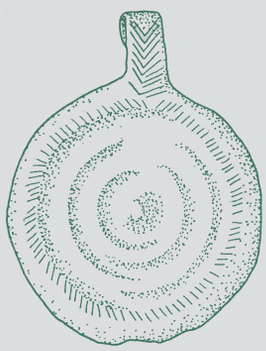
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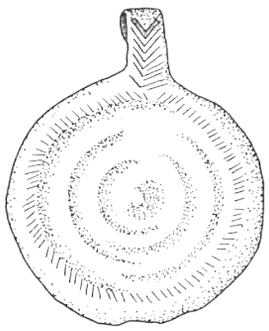


LXX - S1 - 2020 - Firenze

Il volume raccoglie la rielaborazione, sottoposta a *referee*, dei testi presentati in occasione della LI Riunione Scientifica dell'Istituto Italiano di Preistoria e Protostoria, tenutasi a Forlì dal 12 al 15 ottobre 2016

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Italia tra Mediterraneo ed Europa: mobilità, interazioni e scambi

a cura di Maria Bernabò Brea

RIVISTA DI SCIENZE PREISTORICHE LXX - S1 - 2020 - Firenze

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Presentazione

Con il volume intitolato *Italia tra Mediterraneo ed Europa* l'Istituto Italiano di Preistoria e Protostoria inaugura la Serie dei numeri speciali della Rivista di Scienze Preistoriche.
La nuova serie, che mantiene la veste grafica e le norme editoriali della Rivista, è stata pensata per accogliere volumi dedicati all'approfondimento di tematiche specifiche, con *guest editors* e procedura di *peer-rewiev* estesa a tutti i contributi.
L'intento è quello di dare spazio alle molteplici occasioni di riflessione incentrate sulle tematiche della ricerca preistorica e protostorica in Italia, valorizzando l'attività scientifica degli studiosi e destinando loro una sede editoriale rispondente agli attuali sistemi di valutazione accademica. Già a partire da questo numero saranno quindi pubblicati in questa sede anche gli esiti delle Riunioni Scientifiche dell'Istituto, sostituendo la collana "Studi di Preistoria e Protostoria" che si avvia a conclusione.
Per quanto riguarda i criteri editoriali, si è scelto di salvaguardare la distinzione delle due serie (ordinaria e speciale): la Rivista proseguirà la numerazione attuale con cadenza regolare e numeri romani, mentre la serie speciale manterrà il numero della rivista relativo all'anno di uscita, aggiungendo a seguire una numerazione (S1, S2, S3,...) in progressione interna continua. L'adozione di un colore differente per le scritte di copertina e l'inserimento di un logo di volta in volta differenziato, utile a identificare lo specifico numero tematico, completano la veste editoriale dei numeri speciali.
Mi preme sottolineare il respiro internazionale con cui si inaugura la serie speciale, con un volume che rappresenta un'importante riflessione sul tema dei molteplici contatti che il nostro Paese ha stretto, fin dalla preistoria, con gli altri paesi d'Europa e del Mediterraneo, ricevendone influssi che ha spesso integrato nel proprio patrimonio, rielaborandoli e ritrasmettendoli a sua volta. Alla curatrice, già Presidente dell'Istituto dott.ssa Maria Bernabò Brea e al Direttore della Rivista, prof. Carlo Lugliè va il mio sentito ringraziamento per aver reso possibile questo progetto.

Monica Miari
Presidente dell'Istituto Italiano di Preistoria e Protostoria

Neolitico ed Eneolitico

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Alpine jades in the European Neolithic

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Parola chiave: alpine jades, axeheads, European Neolithic, exchange, social organisation, religion

Keywords: giade alpine, asce, Neolitico europeo, scambi, organizzazioni sociali, religione

ABSTRACT - Alpine jades in the European Neolithic - The ANR-funded programmes JADE 1 (2007-2011) and JADE 2 (2013-2017) investigated the production and the extraordinary diffusion of axeheads (large and small) made of Alpine jades on a Europe-wide scale. The phenomenon began during the middle of the sixth millennium BC and ended over the course of the third millennium BC. The precious jades (jadeitite, omphacitite and fine-grained eclogite) were exploited at high altitude as well as among the torrent cones of the two Italian Alpine massifs, Mont Viso and Mont Beigua. Two technical traditions of shaping roughouts—one involving percussion, the other sawing—supplied networks of contacts that were orientated in different directions. The products travelled over much of Europe, with a few reaching central Europe and the Balkans as far as the Black Sea, moving along routes and at distances up to 1800 km as the crow flies.
The authors set out here to explore the complexity of the networks over which the axeheads travelled and to attempt to account for the causes of this spatially extensive phenomenon that endured for nearly three millennia. The importance of elites' social imagination is the best way to understand the religious systems that were in play: these systems determined that only powerful individuals were allowed to handle large Alpine axeheads, depositing them in hoards consecrated to the gods. This explanation accounts for the major phase of Alpine axehead movement that began around 4700 BC with the flow of axeheads towards Brittany and which ended around 3800-3600 BC with the arrival of axeheads in Germany, Britain and Ireland. Our hypothesis thus stands in stark contrast with the commonly-held (and unsubstantiated) view of some geologists that Alpine axeheads were made from flat cobbles taken from torrent beds and that they moved, as ordinary prestige goods, in a 'down-the-line' fashion. Our hypothesis offers a new perspective on Neolithic societies in western Europe, seeing them as inegalitarian in nature, with epicentres in Brittany and the Paris Basin. These two regions had a mythology that featured jade axeheads as being male symbols.

Today, the circulation of large axeheads made from Alpine jades right across Europe, from the middle of the 6th millennium to the beginning of the third millennium, is no longer a surprise (Campbell Smith 1965; Damour, Fischer 1878; Fischer 1880). These long-distance transfers, up to 1800 km as the crow flies, from north Italy to the Atlantic in one direction, and to the Black Sea in the other direction, have become just as emblematic of Neolithic societies as the circulation of *Spondylus* shells from the Aegean to the Paris Basin in the heart of France.

However, while we are beginning to understand the ways in which these objects were transferred between elites, little has yet been done to clarify the *social imagination* – to use an expression from Maurice Godelier (1984) – that underpinned the extraordinary circulation of these precious object-signs. Moreover, the use of the currently-fashionable terms 'display axe', 'ceremonial axe' or 'prestige axe' (Campbell Smith 1965; Compagnoni *et alii* 1995; D'Amico *et alii* 1995 and 2003; Fischer 1880; Meyer 1882; Ricq -de Bouard, Fedele 1993; Thirault 2004) to describe these objects has weak heuristic value, since the terms convey very little and actually mask the profound meaning that these objects had possessed.

We are convinced that we cannot really understand these jade axeheads, their production, their circulation, their transformation along their journey and, above all, their meaning during the Neolithic, without considering ethnoarchaeological models. It is no good to rely only on the western concept of 'logic' as a way of trying to understand these objects; such an approach reflects a very strong element of cultural imperialism. Rather, our ethnoarchaeological models have been developed over the course of 26 seasons of fieldwork in New Guinea, working with the last people to produce and use polished stone axeheads (Pétrequin, Pétrequin 1993, re-published and completed 2000). In these tribal societies, the ability of socially-valued object-signs to cross cultural boundaries is profoundly anchored in the various groups' myths and religious beliefs. Thus, a belief in the non-human origin of stone axeheads, of glass bangles and of cowrie shells can vary along the course of their journey, just as their value and meaning varies. Each of these objects will have its own biography.

From this it is clear that western concepts of prestige and display fail to convey these imaginary social values – imaginary from our perspective, that is, but very real to the people who used them, because they are grounded in fundamental religious beliefs (Pétrequin, Pétrequin 2006).

This is the fundamental hypothesis that was developed during the research programmes JADE 1 (2007-2011) (Pétrequin *et alii* 2012) and JADE 2 (2013-2017) (Pétrequin, *et alii* 2017).

The origin of the Alpine jades

In order to demonstrate the origin of the Alpine jades – something that had already been identified by Alexis Damour (1881), and later re-identified by Secondo Franchi (1901) – we started our prospection work by collecting reference samples of raw materials. It was only by doing this that we were able to provide comparanda for the analytical results for the axeheads and thereby to pinpoint the origin in the massifs of Mont Viso and Mont Beigua – in the form of primary outcrops and of secondary deposits downslope. In these two massifs, jadeitites, omphacitites and fine-grained eclogites are rare and they display an astonishing diversity.

The study of axe- and adze-heads that were exported allows us to demonstrate that these precious raw materials – and let us remember here that only a dozen sources of jade-jadeite are known on the planet – had been carefully selected, with prospectors targeting the very toughest examples, and those which were the most aesthetically pleasing, comparable to those that command such high prices today in markets in Asia. The discovery of working areas on Mont Viso in May 2003 had resulted directly from the determined application of our ethnoarchaeological models developed in New Guinea. There, prospectors target primary sources of raw materials and secondary deposits of considerable size. In effect, these people needed to find substantial amounts of the raw material in order to produce axe-and adze-heads for export and in order to train apprentices in the technical aspects of working these tough rocks.

The massifs of Mont Viso and (to a lesser extent) of Mont Beigua are classic examples of this kind of source area: access to them is difficult, and they are located at some distance from fields and

permanent settlements. On Mont Viso, the principal working areas are located between 1700 and 2400 metres above sea level; hundreds of thousands of hammerstones, debitage flakes and broken roughouts can be found lying around. Radiocarbon dates confirm that exploitation took place between 5300 to 4000 BC, but it may well be that the rock was being exploited before 5300 BC. These traces of exploitation and initial working are exceptional, and they vastly outnumber the finds that have been made to date from further east in northern Italy (at Rivanazzano, for example). Indeed, the working debris appears so abundant and unweathered that, after one guided visit to the Bulè valley, one Hungarian geologist declared that they were too fresh to be Neolithic and that we must be dealing with a Medieval workshop!

The area of production extends over 250 km from west to east. Within this area, roughouts were circulating at all stages of their preparation through flaking and hammering. The spatial extent of this activity is too large to correspond to what would have been required just to furnish the needs of the immediate region. And it seems that there was not a great deal of technical evolution in the way the raw material was worked; one can see a rapid spread of a technique requiring a low degree of specialisation, where hammering was preferred to the more demanding technique of flaking. Where people shaped roughouts by flaking, they needed slightly laminated rock and a high degree of knapping skill.

Then shortly before 4500 BC, we see the emergence of the technique of sawing, using crushed quartz and water. The sawing of blocks was a laborious operation, but it had several advantages:

– firstly, it allowed people to exploit some extremely tough jadeitites that were practically impossible to flake and which would take a very long time to hammer into shape; examples of these rocks are the jades of the Porco valley on Mont Viso;
– secondly, it offered an economical use of the raw material, by sawing it into slices or regular bars, with minimal wastage;
– and finally it allowed people to produce long axeheads that were ready to polish, with some over-sized examples being as long as 40 cm.

This sawing was undertaken by specialists located between the north of Mont Viso and Savoie, on the western side of the Alps. The products were strictly reserved for trans-Alpine exports in the direction of the Atlantic, and ultimately to Britain and Germany.

Typological evolution and transfers

In considering the European-wide distribution map (fig. 1) that shows all the types of long axe- and adze-heads over the whole time-frame of production and use – in other words, a palimpsest of information – it is somewhat surprising to see that most of the products circulated towards France and Germany, where they are far more abundant than finds in northern Italy. Also noteworthy is a fairly clear frontier along the eastern edge of Germany. Finally it is noticeable that the shape of the objects that ended up a long way away is very different from that of the axe- and adze-heads found in north Italy. This implies that the blades underwent one or more episode of re-shaping by repolishing during their long journeys.

One important finding of *Projet JADE* was the opposition between a 'Europe of jade' in the west, versus a 'Europe of copper' in the East and Southeast, around the middle of the fifth millennium. However, we have not yet fully explained the nature of the frontier between these two Europes. In effect there seems to be a gap between the distribution of jade objects and of copper objects, and this gap requires to be accounted for.

We have recently identified the very earliest Neolithic exploitation of jadeitites in Europe, in the island of Syros in Greece (fig. 1). Here, the production of everyday woodworking tools has been dated, from finds in Turkey, to around 6000 BC.

By contrast, on the Mont Viso massif, there is no definitive proof that the jades were being exploited before around 5500 BC at the earliest. There is no relationship between activities here and on Syros.

The subsequent expansion in the use of Alpine jades reached the whole of France, of west-central Europe and the Balkans around 4700 BC, followed by Germany around 4300 BC, with the expansion of the Michelsberg culture, and finally Britain and Ireland, with the Neolithic colonisation of that archipelago at the beginning of the fourth millennium (fig. 2).

Among the producers in north Italy, the typological evolution of the shapes of axe- and adze-

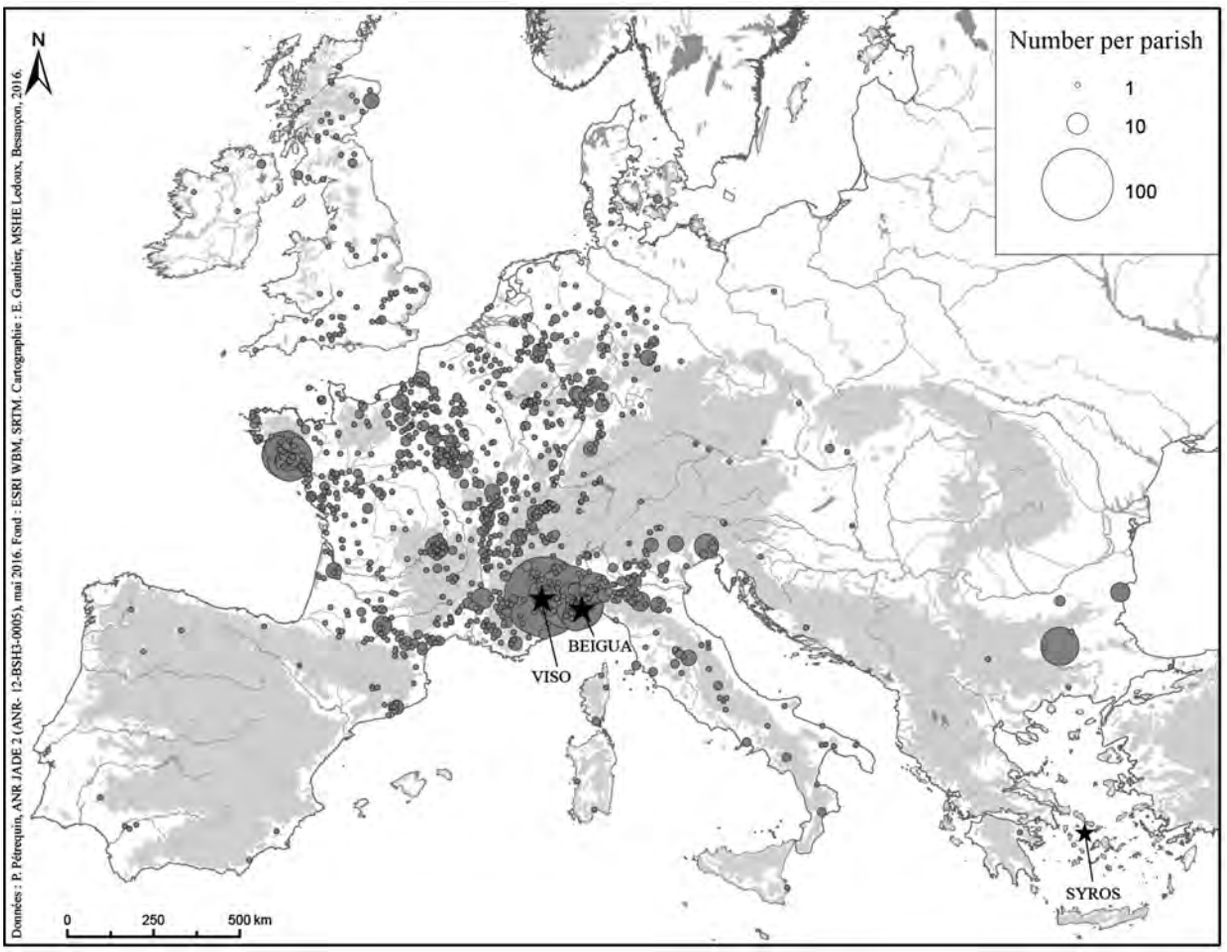


Fig. 1 – Alpine jades in Europe, 6th-4th millennia BC. 2100 axeheads longer than 13.5 cm and up to 43.5 cm. Data P. Pétrequin, 2016. Cartography E. Gauthier. Map data: ESRI WBM, SRTM.

Giade alpine in Europa, VI-IV millennio. 2100 asce più lunghe di 13,5 cm e fino a 43,5 cm. Dati P. Pétrequin, 2016. CAO E. Gauthier. Carte: ESRI WBM, SRTM.

heads seems to have been both slow and not very varied. But in France, by contrast, there was an especially rapid typological diversification, with a succession of types gradually replacing each other. This shows a social dynamic and it also reflects intense competition between elites. Likewise, the choice of rocks within the family of jadeitites seems to be particularly wide at the westernmost extremity of Europe, while in Italy people preferred to use eclogites, some of which are of mediocre quality. This striking difference between the centre and the periphery is very clear when we compare the distribution of these two families of rocks, namely the jadeitites and the eclogites. So, while the Italian producers preferred to use dark-coloured jades, the Neolithic consumers in Brittany, Germany and Britain and Ireland preferred the most beautiful light green jadeitites, and in particular those from the Porco valley in the Mont Viso massif. These are the hardest; they are translucent when ground to a particular thinness and are of a fine milky green. This accords perfectly with their use as an object-sign.

Let us look now at the export of Alpine jade objects across networks of contacts towards the Atlantic façade.

First of all, there was the Bégude type of adze-head. This is a classic Italian form that was accepted over a wide area without being modified to any great degree. It circulated beyond the Alps from the beginning of the 5th millennium, but its distribution stayed within the area of the old Danubian Neolithic world, that is, south of a line that corresponds to the western limit of adze-heads made from the meta-amphibolite of the Jizera Mountains in the Czech Republic.

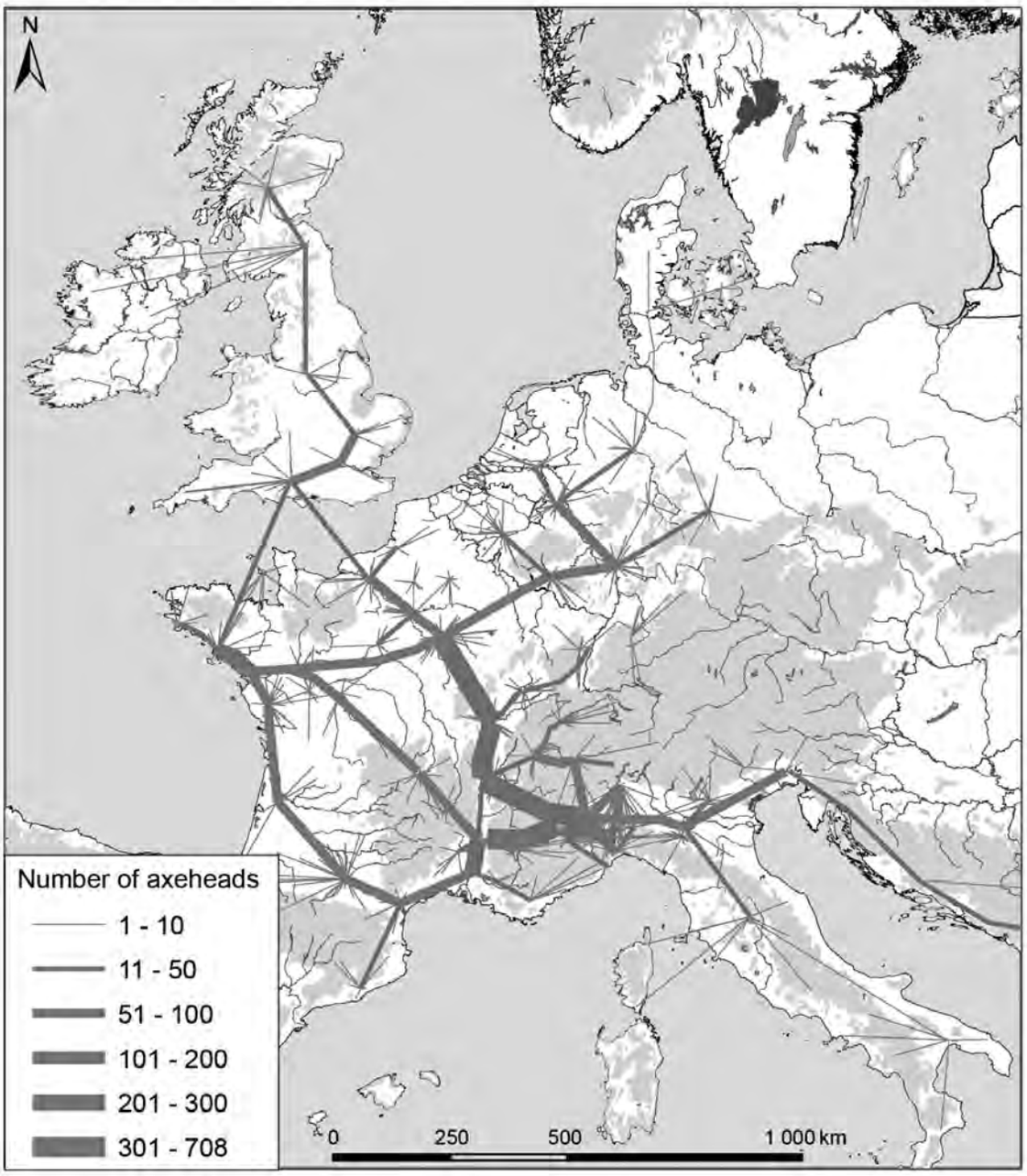


Fig. 2 – The flow of long Alpine jade axeheads, showing those of all periods and types together. Data P. Pétrequin, 2015. Cartography E. Gauthier. Map data: ESRI WBM, SRTM.

I percorsi delle asce lunghe in giada alpina, tutti i periodi e tipi riuniti. Dati P. Pétrequin, 2015. CAO E. Gauthier. Carte: ESRI WBM, SRTM.

This circulation of Bégude-type adze-heads opened the way for more complicated exchanges, which took place towards the middle of the fifth millennium. Within this network of divergent and convergent routeways, a strategic position was occupied by the regions of Burgundy, the Paris Basin and the Gulf of Morbihan in Brittany. In these regions, a large number of imported large axe- and adze-heads of Alpine jade were repolished in order to modify their shape and thereby to respond to the desire of local elites to possess object-signs that were original. For these people, Alpine jade objects were of rare raw material that was '*good to think*'.

Carnac-type axeheads

Once they had arrived in Morbihan, certain axe- and adze-heads were reinterpreted and repolished once again, to create the Carnac-type axeheads that are specific to this region. Some of these have perforated butts. Towards the middle of the fifth millennium, in the gigantic Carnac mounds that were each built to cover just a single, luxurious grave for an individual who operated above the rules of normal society, and which were constructed with a degree of monumentality that is hard to imagine, mourners deposited axeheads and a disc-ring of jade (Locmariaquer, Mané-er-Hroëck) along with variscite pendants and axeheads of Iberian fibrolite.

Several Carnac-type axeheads, often with an expanded blade that imitated the form of copper axeheads used in the Balkans and in central Europe, were then re-injected back into the exchange network, to travel back into the heart of the Continent. Thus it was that the axehead found at Schweicheln in Germany had travelled 1850 kilometres by the time it was consecrated and deposited – having travelled 850 kilometres from Mont Viso to the Gulf of Morbihan where it was repolished, then travelling 1000 kilometres to Germany. Indeed, there are other examples that had returned from Morbihan along the route they had originally travelled, to end up nearly at the foot of Mont Viso.

The incredible ideological power of the Carnac-style axeheads is also demonstrated by the imitations that were made in local rocks towards the end of the fifth millennium:

– in south-west Germany and Switzerland, with the Zug type, made of serpentinite;
– and in the west of the Iberian peninsula, with the Cangas type, made from fibrolite or schist.

Other consequences of the circulation of jade artefacts are also astonishing.

In the Armorican massif, during the second half of the fifth millennium, the earliest production of axeheads made from dolerite was inspired by Bégude-type adze-heads of jade. And some of these Armorican imitations also travelled long distances, as far as Denmark and Poland. The axehead from Plemięta will have travelled 1600 kilometres to the north east, probably as part of the northward Michelsberg expansion out from the Paris Basin.

Masculine or feminine signs

Other object-signs – which are too often considered to be mere items of female jewellery – were released into circulation from the Inner Alps. These are the disc-rings made from jadeitite or eclogite, each of which would have taken hundreds of hours to make. More common than these are the rings of serpentinite, which were quicker to make, requiring only 20 to 30 hours.

The earliest disc-rings were certainly made in Italy, but this production seems to have ceased at the very beginning of the fifth millennium. The place of disc-ring production then seems to have shifted to the French side of the Alps. The latest-known disc-ring of jadeitite is the one found under the mound of Mané-er-Hroëck in Morbihan, dating to the middle of the fifth millennium or perhaps even earlier. These Alpine rings will no doubt have been the stimulus for the production of thousands of schist arm-rings in the Villeneuve-Saint-Germain culture in the Paris Basin. There is little doubt that these imitations could have been used as a form of quasi-currency, for making compensation payments, during the first quarter of the fifth millennium.

The use of the ring in the repertoire of mythological signs, joining the use of the axe, is demonstrated by the images of rings found engraved on standing stones and boulders in Valais, Burgundy, the Paris Basin and Brittany. Several standing stones in Burgundy have engravings of a disc-ring, shown at eye level and sometimes associated with



Fig. 3 – The engraved designs on the boulder at Buthiers "Vallée aux Noirs 6" (Seine-et-Marne, France). CAD S. Cassen.

Le incisioni rupestri di Buthiers "Vallée aux Noirs 6" (Seine-et-Marne, Francia). DAO S. Cassen.

images of axes. These are probably representations of the over-sized disc-rings, such as the example found at Ouroux-sur-Saône in Burgundy. In the Paris Basin, on a boulder in the Vallée aux Noirs at Buthiers (Cassen *et alii* 2018), the image of a large disc-ring is associated with that of a hafted axehead, while smaller rings seem to be attached to the clothing of a large anthropomorphic figure with a splaying hairstyle or with rays emanating from the head (fig. 3 left). Along with the two images of boats, the link with the mythology of the Carnac region in the Gulf of Morbihan is clear. But in Morbihan, representations of disc-rings are more rare. Here, it was the long axehead of Alpine jade that featured in the mythological imagery that was engraved on standing stones, some of them truly colossal. The axe expressed the concepts of violence, of power and of virility.

As with the axeheads that were repolished in Morbihan, one part of the mythology of the Carnac area – in the form of engravings, and also as rows of standing stones – was exported from Morbihan towards the centre of the Continent, sometimes retracing the journey taken from the Alps by jade axeheads. The menhirs of Cavaglia in Piedmont were erected just 100 km from the foot of Mont Viso (Rubat Borel 2010).

However, it would not be wise to attribute all the megalithic engravings between the Paris Basin and northern Italy to the mythology of the Carnac area. This religious symbolism from Morbihan became mixed with other regional mythologies, as is clear from the engraved panel from Chenal at Montjovet in the Aosta valley (Arcà *et alii* 2015), whose motifs reflect the Alpine tradition rather than direct influence from the Carnac area (Cassen 2017).

We now understand what was the mythological importance of axeheads and rings of Alpine jades. The reason for their success and their circulation right across western Europe was, well and truly, the ideological value of these precious object-signs that were exchanged, given, transmitted and consecrated. And it is in Morbihan, at Mané-er-Hroëck, where an axehead that had been deposited 'penetrating' a ring illustrates a form of ideal reproduction of signs that was imagined and manipulated by men.

Conclusion

Finally, what was the role of northern Italy in the functioning of the Europe of jade, between the two opposed poles of Morbihan in the west and Varna in the east?

Without a doubt, the fundamental innovation of the axehead and the ring of Alpine jade is entirely a product of the Early Neolithic of the Po valley. But having metaphorically given birth to these items, the people of northern Italy and the western edge of the Alps acted as purveyors of these raw object-signs of jade, which were destined to be re-imagined and modified in response to the different norms of the Paris Basin, the Morbihan and the Balkans. In contrast, the stylistic influence of the Square-Mouthed Pottery Culture was extremely limited beyond the Alps.

However, north Italy constituted a nodal point in the transmission of rare objects and of social concepts between the Balkans and Brittany. One good example of the role of Italy is the way in which Carnac-style axeheads in Brittany imitate the shape of the copper axeheads from the heavy copper industry in eastern and south-east Europe. If our hypothesis is correct, this means that certain copper axeheads must have reached Italy and the Morbihan from the 46th century BC.

On the one side, people in north Italy provided the Europe of copper with a small number of axeheads made of jade. These were used as elite status symbols and not as object-signs with a religious value. And on the other side, people in northern Italy provided the Europe of jade with thousands of mythological object-signs which

were deployed in systems of religious beliefs, to be manipulated by several powerful men, in particular in Morbihan, where these men were probably subordinate to a 'divine king'. This is why these Alpine jade artefacts were so successful. So, it is in the realm of religious beliefs that we have to seek to understand the originality and the dynamism of the Europe of jade. And towards the middle of the fifth millennium these beliefs included the idea, and the reality, of social domination by men. This is abundantly illustrated in the form of monumental standing stones and in the repertoire of engraved images.

Very recently, within the 'blank' area that separates the Europe of jade from the Europe of copper, Helmut Schlichtherle (2016) has uncovered a mythological and religious system featuring representations of 'Great Women'. These have been moulded, painted or engraved on wall plaster and on pottery.

The picture for Europe thus seems to be complete, and what shines out is the originality and the power of the social model of the Carnac region.

This presents us with a new paradigm for research. All this takes us a long way away from the outmoded vocabulary of an ethnology of colonisation and from the idea, still entertained by certain colleagues, that axeheads with a length of 40 cm or more could have been made simply by gathering axehead-shaped cobbles from torrent beds. Such ideas are nonsensical and it is high time that they were thrown out.

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