



## STRUCTURE FROM THE NORTH CONTENT FROM THE SOUTH. ROCK ART, METAL TRADE AND COSMOPOLITICAL CODES

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**ABSTRACT** - In this paper I will argue that the production of rock art in Scandinavia is intimately associated with the metal trade, responding in a very delicate way to changes in metal routes and networks.

Several Scandinavian features from the Bronze Age have been inspired by the Mediterranean world, such as the folding stools found in Danish mounds, metal objects and not least the images on the rocks. For instance, there are some striking similarities between the bi-horned warriors in Extremadura rock art, Nuragic figurines from Sardinia and the bi-horned warriors depicted in the rock art in west Sweden. Moreover, the similarities between the rock art in Valcamonica and Scandinavia have been stressed by many scholars. In this context it is interesting to note that Scandinavia imported copper from ores in North Tyrol, Spain and Sardinia in the Bronze Age. Thus, the anthropomorphs on the rocks in these remote regions bear witness of this interaction. These exclusive cosmopolitical codes or core values were shared over a large part of Europe in the Bronze Age and most vividly expressed in rock art showing representations of armed humans and metals in different configurations and displays

**RIASSUNTO** - In questo articolo si dimostrerà come la produzione di arte rupestre in Scandinavia sia intimamente legata al commercio di metalli, e come perciò essa risponda in modo molto sensibile ai cambiamenti nelle rotte e nella rete di scambi dei metalli. Molti caratteri tipici della Scandinavia in età del Bronzo si ispirano al mondo mediterraneo, come per esempio gli sgabelli pieghevoli ritrovati nei tumuli in Danimarca, gli oggetti metallici e non da ultimo le immagini sulla roccia. Ad esempio, ci sono delle straordinarie somiglianze tra i guerrieri bicornuti dell'arte rupestre in Estremadura, le figurine nuragiche della Sardegna e i guerrieri bicornuti dipinti dell'arte rupestre della Svezia occidentale. Inoltre, tali somiglianze tra l'arte rupestre della Valcamonica e quella scandinava sono già state sottolineate da molti studiosi. In questo contesto, è interessante notare che la Scandinavia nell'età del Bronzo importava rame dalle aree di minerali grezzi del Tirolo settentrionale, della Spagna e della Sardegna. Per questo motivo le figure antropomorfe presenti sulle rocce di queste lontane regioni offrono una testimonianza di tale interazione. Questi codici cosmopoliti esclusivi, o valori fondamentali, erano condivisi da gran parte dell'Europa in età del Bronzo, ed erano espressi al meglio e in modo vivido nell'arte rupestre, attraverso rappresentazioni di figure umane armate e di metalli in diverse configurazioni e forme.

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### INTRODUCTION

The region of Bohuslän holds one of Europe's largest concentrations of Bronze Age rock art and no other area presents such a rich figurative repertoire and complex compositions of images from the Bronze Age (Fig 1). There are plenty of figuratives and among the repertoire we find representations of bulls (Fig 2). They occur mostly on panels that hold ships from Early Bronze Age period 1 (1700-1500 BC) and are *made in close association* with the ships. The chronology of the representations of bulls are of greatest importance and it is here argued they rather belong to latter phase of period 1, the so called period 1b (1600-1500 BC) then the earlier phase. We will try to argue for this in the following.

Not much attention has been paid on these representations and the most common theme is that they convey the pastoral livelihood in Tanum during the Bronze Age (Bertilsson 1987, Vogt 2012). However, in terms of the location, combination and display these particular images may convey a transformative narrative feature rooted in the North Scandinavian rock art tradition while the image itself could be seen as an influx from the Mediterranean world. Here was the bull image, well-established ritual feature from the first phase of the Neolithisation or and onwards (Hodder 2010).

In the following we argue for that the production of the south Scandinavian rock art in in the Bronze Age was intimately associated with the metal trade, responding in a very delicate way to changes in metal routes and networks. However, the structure or rather the format of making rock art was a feature derived from the North.

In the north Scandinavian rock art tradition we find many examples of animistic transformation of forms of the wild form into "human" form (Sogness 2001, Gjerde 2010). The wild element take many forms in the

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Bronze Age depending of the nature of the origin. For instance, the animate- non animate transition, stone in many forms, metals and amber, all derive from a natural source and their movement or transformation is essentially a change from a raw state into a domesticated “cultural” form. It is the idea of taking the outside in that links the south Scandinavian Rock art to both North and South and includes both animal and non animal transformations (Kristiansen & Larsson 2005). The bull image could be seen as a typical example of this hybridisation, between an older “animistic” feature from the North being revitalized by content from the south, and this fusion constituted the main influence of the south Scandinavian Rock art tradition in the Bronze Age.

#### *Bulls, ships and seascapes in Northern Bohuslän*

In the areas of Tanum, Kville, Svenneby and Bottna, bull depictions often occur on rock art panels with ship depictions from the EBA (e.g. Tanum 12, 25, 62, 311, 304, and Bottna 334, see Högberg 1995; 1998a-b, Fredsjö et al. 1971, Kville 161, 163, Svenneby 214, see Fredsjö et al. 1971, 1981). However, there is not enough space to describe all these sites in detail and we have therefore confined our study to a couple of sites in the Tanum area (Fig 1).

According to the most recent shore displacement study in the area, the altitude of the shoreline at the beginning of the BA should be approximately 16–17 m a.s.l, with a descent to 10–11 m a.s.l towards the end of the BA (Ling 2008). This implies that most of the panels mentioned above faced a seascape during the BA. Thus, the maritime realm seems to have attracted groups to make ships bulls and other images on the shore during the BA.

At the site Tanum 12 at Aspeberget in Tanum there is a scene or rather a succession of a human and bulls in different sizes, the closer to the ship the larger becomes the bull as if the bull, when getting the real size transforms into a ship (Fig 2). The ship holds typical features for Early Bronze Age, as for in-turned prows and a slight raised keel extension and the performance of all images indicates a dating to the Early Bronze Age. In fact, the in-turned prows could be seen as yet another device that connects the ship with the bulls, in terms of the shape of the horns. Beneath the ship there is an additional bull and beneath this a ship and a bull. The entire composition of ships and bulls and the sequence with growing and moving bulls, that seemingly enters or transforms into a ship, is indeed interesting.

The transformative features between ships and bulls here seem all to elaborate on the theme “taking the outside in”.

At the site Tanum 25, the most striking feature is the bull on the lowest position with a ship shaped body, indeed similar to the shape of the ship depicted at the right. Above the bull is a human scene showing “males” with erected penises in a moving sequence. Thus a “herd” of ships and bulls seem to surround the human scene in a similar manner as if they slight different species but yet from the same herd and with the same intent, maybe to protect or ensure the social initiation rite (Fig 2).

What we shall keep in mind is that the ship may have been regarded as a fragile feature during the BA and by fixing it into the steady rock and depicting with strong features or symbols as the bull; this action could have ensured the durability of the journey of the ship.

#### STRUCTURE FROM THE NORTH CONTENT FROM THE SOUTH

Transformations between animals (elks, reindeer's and seals) and ships are a common theme for the North Scandinavian rock art tradition and today, most scholars agree that the structure of making rock art “as format” was transmitted from the north to the south (Helskog 1999; Sognnes 2001, Bradley 2006, Goldhahn 2010, Cornell & Ling 2010 Gjerde 2011). Another important feature that needs to be stressed regarding the North Scandinavian rock art tradition is that it is thought to have been made in accordance with seasonal socio-ritual-gatherings. These meetings took place when there was a seasonal abundance of prey animals at these specific locations in the landscape as for Nämforsen or at Alta (Helskog 1999, Goldhahn 2006, Gjerde 2011).

An important cognitive feature in the process of making images in these remote areas was to depict different kinds of transformations or as to speak “taking the outside in”. In this sense the metal can be interpreted as a ‘prey animal’ that is sought in wild places and brought back to be domesticated into discrete cultural forms. Like prey animals, metals, amber, etc are characterized by instability and unpredictable flows in appearance and availability.

Taking the outside it has many different connotations of the wild emanating from several diverse origins in the EBA and becoming increasingly condensed and embodied in human – non human forms of violence in the LBA eg in forms of the warrior bull figure on the rock art. The bull image itself (content) may have been an inflow from southern Europe since the South Scandinavian rock art tradition starts to flourish at the same time as Scandinavia become deeply involved and interlinked with the European metal networks, 1700-1500 BC. It is now proven that Scandinavia obtain copper from the Aegean World 1600-1500 BC (Ling. et al 2013) where

the bull image was an-established feature of ritual (Hodder 2012). In west Sweden the bull image became incorporated into the new custom of making rock art where it ensured the durability of the War canoes.

#### BULLS, SHIPS AND OXHIDE INGOTS

About 1600 BC cosmopolitical codes and features was pecked on the rocks in Scandinavia as never before. These hybrid features may be regarded as exclusive 'social codes' or 'core values' shared over a large part of Europe. Different articulations and configurations of these codes are found in different media including rock art, metals, pottery and graves in Bronze Age Europe (Treherne 1995; Harrison 2004; Coles 2005; Kristiansen & Larsson 2005). In Scandinavia these codes, we believe, were articulated and most vividly expressed in rock art showing representations of bulls, ships, chariots, oxhide ingots and representations of the sun as for concentric circles, and later on armed humans associated with ships.

It has to be emphasized that there are basically no figurative rock art before 1700-1600 BC in the south Scandinavian rock art areas, such as Bohuslän, Östfold, Norrköping, Scania, Uppland, Rogland and Hordaland. About 1600 BC there is significant increase in metal in south Scandinavia, especially in Denmark (Vandkilde 1996). Moreover *and most intriguing* this is also the first phase when Scandinavia seems to have imported copper from the Mediterranean world (Ling et al 2013). Thus, Scandinavian objects dated to 1600-1500 BC and 1500-1400 BC match ores from Cyprus and Lavrion in the eastern Mediterranean. At the same time starts the first phase of figurative rock art in the mentioned areas. Ships as the one depicted on the bronze sword from Rörby dated to 1600-1500 BC (Kaul 1998) are depicted on the rocks. Many of these ships could be dated to 1600 BC by shoreline dating (Ling 2008, Ling 2013)

However, the most interesting observation is that at the same sites as these early representations of ships are depicted we find also representation of oxhide ingots, dated to the same phase, 1600-1500 BC (fig 4.)

About 1400 BC the horse replaces the transformative role of the bull in southern Scandinavian and becomes an integral part of the prows of the ships (Kaul 1998, 2013 Ling 2012). The bronze razors from this period is also attributed with this feature and

Kaul argues convincingly for that the horse representations on the Nordic Razor as well as the Nordic Rock art ships are inspired by the shape of Mycenaean bronze razors (Kaul 2013).

*The shape of the Nordic razor differs (with one exception) from all others known from the European Middle Bronze Age: it is similar to examples found in the Aegean. The resemblance is not exact: in the Nordic razors the handle with its horse's head is cast in one piece with the blade, while in the Aegean razors the handle is made of wood, bone or ivory and secured by rivets (Kaul 2013:462)*

In fact, several Scandinavian features from this period in the Bronze Age seem to have been inspired by the iconography from the Mycenaean world, as for horse drawn chariots in rock art and other symbols (Thrane 1990, Kristiansen & Larsson 2005). It is notable that Harding argues for three main episodes for the traffic of amber to the Aegean world 1600, 1500 and 1200 BC (Harding 1984, 1990). This fits well with the dating of the Scandinavian metals artefacts that in turn match with ores in the east Mediterranean world and it indicates that amber was an important feature of trade between these remote regions (Kaul 2013). It is then logical to assume that Scandinavian rock art also picked up features from this interaction.

Even if the bull ship combination, transformation seems to have vanished later in the Bronze Age some elements of this survived as for the bull horn/ lures, in the ships. Moreover, in the LBA the elements of the bull become integrated into the depicted warriors on the rocks in the form of bi-horned helmets (Fig 3). Another fascinating feature for the LBA rock art, that recalls the bull-ship connection, is the somersaults performed over the ships holding bi-horned warriors. The figures performing the somersaults are attributed with extended calves, a characteristic of the bull warrior transforms which suggest that the power embodied in the bull warrior figure is still attached in some way to the images of the ship (Fig 3). Moreover there are some striking similarities between the horned warriors in Extremadura rock art, Nuragic figurines from Sardinia and, the horned warriors depicted on the rock art in west Sweden and the horned bronze figurines from Grevesvänge in Denmark (Harrison 2004, Kristiansen & Larsson 2005). In this context it is important to stress that Scandinavia "imported" copper from these regions during the Bronze Age (Ling et al 2012). Even if these horned anthropomorphs were produced in remote regions during the Bronze Age, they derive from more or less the same epoch, 1100-800 BC (Harrison 2004)

#### THE ENTANGLEMENT WITH METAL

It cannot be coincidental that such an enormous increase in the density of rock art should occur at the same time as the increased dependency of the Nordic Zone on access to metals. The Scandinavian Bronze Age



objects seem to have been based on copper from a few continental sources, and these changed over time (Ling et al. 2013). Most of the copper in the analysed artefacts from Sweden seem to have been channelled through a western ‘maritime route’ following old beaker networks using copper from the western Mediterranean and the British Isles (cf. Cunliffe 2008).

However, much copper was also ‘brought’ from central Europe i.e. from North Tyrol, especially from the EBA (Ling et al. 2012). Thus a new complex picture of flows of forms and raw materials emerges which to be has considered (Fig. 2). Objects dated to 2000-1500 BC, such as shaft-hole axes, flange axes and daggers mainly match ores in the North Tyrol, Cyprus and east Portugal, while flange hilted swords, spearheads and other objects dated to 1500-1100 BC tie up neatly with ores in Sardinia and/or south-western Iberia. Most objects from the Late Bronze Age correlate with ores in south-western Iberia and ores in North Tyrol (Ling et al. in prep.). Interestingly enough, there are no isotopic matches with ores from areas that traditionally have been seen as the main import areas for copper to Scandinavia (Vandkilde 1996; Thrane 1975; Kristiansen 1998) such as the Carpathian basin or Germany (Ling et al. 2013).

However, these areas have clearly inspired Scandinavia and vice the versa in terms of metal forms, housing, cosmopolitical codes and burial customs. A striking evidence of this interaction is the similarities between the full hilted sword from Central Europe and the Nordic ones, a fact stressed a number of times by Kristiansen (1998, 2002). In this context should also the strong case with amber and swords relations and connections in the Middle Bronze Age, between Central Europe and the Nordic sphere be stressed (Kristiansen 1998, 2002).

There was a rapid deployment of human social resources to bring the Nordic Zone in contact with external sources of metals. During the Bronze Age the Scandinavian sphere was dependent on foreign metal sources, this dependency or rather entanglement (Hodder 2012) was highly complex and involved human and thing relations on yet many levels (societies, communities, small groups etc). Hodder explain the notion of entanglement as follows.

*... entrapment occurs because we have invested labour, resources, time, in things; it occurs because we have come to depend on the positive benefits deriving from the greater flows of resources and information through the network; entrapment occurs because various forms of ownership of things may lead to rights and obligations towards each other. Thus the notion of entanglement as I define it is not just a return to notions of materialism and environmental constraint. It is not the materials themselves that cause entanglement, but the interlacing of materials with the whole suite of ways in which humans and things depend on each other. So it may be better to think of the entangled web as made not of strings but of multi-stranded cables. It is precisely the interactions between the multiple strands – the material, biological, social, cultural, psychological, cognitive strands of the individual cables – that make the entanglement so strong (Hodder 2011: 164).*

The entanglement in metal should be seen as highly complex process between human and things dependent on features as flow and temporality, velocity and durability (Hodder 2012:254). The “entanglements” in metals during the BA involved minerals, miners, traders and transport systems in distant regions, foreign and local maritime networks and alliances, local settlements sites where the bronze became casted after functional and ritual needs. It involved the regional hoarding praxis, mortuary praxis and the not least regional casting of weapons and tools. Scandinavia and other regions in Europe could of course survive without metals but as Hodder has stressed regarding the Neolithisation or today’s dependence on cars, the entanglement or rather entrapment in such complex material processes cannot be reversed but rather replaced by similar complex material engagement. The entanglement with metal generated a complex mesh of communicative, spatial, temporal aspects of human and thing relations and social relations and of power, dominance and alienation.

To be able to cope with this entanglement or system, this demanded corporate strategies between regions with different advantages and to make this system work it had to involve almost all economic and social sectors of society. In this context different region seems to have had different relations to this interactive mesh. Coastal regions Denmark, Sweden and Norway, were deeply involved in the maritime matters, i.e. building, crewing ships and creating maintaining maritime institutions.

Several ritual features can be recognized in rock art, graves and bronzes, illustrating the significance of the sea for Scandinavia during the Bronze Age (Fig. 5, cf. Kaul 1998; Ling 2008) A maritime ideology was one of the major cornerstones for the Nordic Bronze Age, grounded in a maritime reality with an emphasis on building and crewing ships for maritime trading/raiding and warfare. Thus the formation of new maritime institutions (e.g. Kristiansen 2004; Kristiansen & Larsson 2005; Needan 2009) constituted a crucial feature for the societies in the coastal areas of the Nordic Bronze Age. The praxis of pecking ships into the rocks in Scandinavia could have served to make this maritime ideology more dominant.

The inland “agricultural accumulation areas” were deeply involved in agricultural matters such as feeding livestock and corps. The latter regions were also the ones that obtained most metal due to the stability, pre-

dictability and long-term use of these products. Whilst the maritime world was more fragile much due to the instability of stable finance and the instability of metal flows. Scandinavia succeeded in this process, much due to the corporative strategies between the agrarian and maritime social spheres of production and relations. In short: the corporative strategies between the agrarian and maritime spheres, the overall demand for metal, the creation of maritime institution and the access and control of amber, gave raise to southern Scandinavia realisation in the cosmopolitical entanglement with metals in the Bronze Age

The different regional engagements in this system, created also two major ritual expressions; A maritime with figurative rock art, coastal cairns, ship shaped graves or ship shaped bronzes; A terrestrial one including earthly barrows, major bronze hoards, figurines and cup marks. However, some strong ritual, religious / cosmological features was evident in both of these spheres and overbridged these ritual dichotomies (Kaul 1998).

The agrarian sphere was deeply depended on the maritime for the metal and vice the versa the maritime sphere was depend on the stable agrarian spheres consumption of the metal. However this dependency or relation was not to be shown, this was rather suppressed or obscured. Here it is relevant to stress the absence of house imagery in the rock art. Rather than being just a coincidence, this could possibly reflect the two spheres' different social actions and concepts. In a sense, rock art could have had certain political aims and dimensions and the large number of ship depictions in the coastal areas may, in itself, have served to enhance the importance of the maritime sphere and even, to some extent, make it more dominant. It seems reasonable to assume that groups and individuals may have alternated between the maritime and terrestrial spheres. In general, however, heavy maritime labour, such as overseas expeditions, trade, transport, boat-building, burials, ceremonies, warfare and other encounters would have represented a major investment in people and materials. For these purposes or occasions, some groups and individuals may have suspended their terrestrial livelihood to take up a seasonal or occasional maritime livelihood, while others may have had more permanent positions in this sphere. It may have been important to mark or manifest such transitions in some way and it is tempting to picture the rock art in this light.

As a result, the entanglement with metal created new needs to aggregate and interact, preferable on seasonal basis and at communicative maritime locations at the coast. Many of the coastal rock art regions could have worked as primarily ports for metal distribution in southern Scandinavia and thereby worked as "aggregations sites" for groups with a mobile occupation as for travelers/warriors/traders and for groups with a more domestic occupation from inland areas. Bearing this in mind, we may assume that people from a larger area may have visited, the rock art areas in order to

maintain, reproduce or initiate socio-ritual structures of power, identity, ideology and cosmology. So in sense, this process triggered similar needs to interact and aggregate as the ones that occurred in Nämforsen or at Alta and Trondheim during the Neolithic, whilst the Bronze Age "prayer" was made of metal rather than flesh and blood.

#### TRANSFORMATION IN THE APPEARANCE OF HUMANS, SHIPS AND BULLS

Turning to the rock art, the earliest images dated to about 1600 BC concentrates our attention on animal forms, boats and quite abstract if ephemeral human figures. If our observations are empirically verified, we would also argue that the dominant animal and ship forms are transforms of each other. In particular that the shape of the bull, as a principle animal form, transforms into a ship form and both will be joined together in groups that suggest a herd/fleet in movement. These scenes have been dated to the early Bronze Age in the Nordic zone but we can also trace rock pecked figures of animals and boats back to the Neolithic and potentially they may already be of Mesolithic date (Fig7, cf Helskog 1999, Westerdal 2005, Gjerde 2010). The important difference as far as their Bronze Age appearance is concerned is first their density and complex appearance in apparently narrative forms. In the later Bronze Age, human figures with bull figure characteristics become prominent features of the rock art. A significant transformation in the appearance of humans, ships and bulls occurs during this period that continues through the PRIA and later.

The rock art is not only prevalent but located deliberately on coastal settings. In some cases quite literally one would have had to be in a boat to have depicted the art on a rock surface. As we have argued, the location of rock art is linked to maritime access and the fact that coastal western Sweden had to be the location for materials and ship building skills. Hence access to trade in metals and amber from the Danish islands was dependent on a reciprocal exchange with the supply of ship and maritime skills of people in western Sweden. Such pragmatism in comparative advantage may well be a matter of the political economy of the earlier Bronze Age in the Nordic Zone but it does not answer the more interesting questions concerning the content of the art nor the reasons for its concentration.

One of these is the nature of the divide of domestic/wild, human-nonhuman in the distinction between the



different regions in the Nordic Bronze Age In the context of a rock art composed of animals and ships, the common feature is the body. In the early Bronze Age, the human figure is simply not prominent and it takes some imagination to say that the pairs of figures in the ship images are definitely human. Instead it is the transform of animal into ship and the fact that features of the animal, horns, body shape, are translated into the ship form that suggest the two forms are found in each other. Following Viveiros de Castro argument on perspectivism, we could surmise that whilst they may share aspects of their separate bodies to create a ship/bull image, the hybrid form will show what they have in common. In more animistic terms, what bull and ship would share in common is a soul (given there is no Judeo-Christian body/soul dichotomy) which in turn is also shared by the ephemeral presence of human figures.

Whilst different forms can move back forth across the same/alterity divide, this is precisely because they share a spirit although it is the form of their bodies that gives them a different perspective and potency in its actualisation. But the classic statement on the relation of body forms to the idea they share a common substance or soul is the much neglected work of Levy-Bruhl. In *L'âme primitive* published in 1927, he gave the much cited quote (usually for negative reasons) “*He [the primitive] therefore sees no difficulty in metamorphoses which to us appear utterly incredible: beings can change their size and form in the blink of an eye*” (Levy-Bruhl 1996 [1927]: 8). Not long after, in a work dedicated to Levy Bruhl, the Melanesianist Maurice Leenhardt made the following observation on the C anaque concept of humanity “*Animals, plants, mythic beings have the same claim men have to be considered ‘kamo’ if circumstances cause them to assume a certain humanity*”. “*He [kamo] undergoes metamorphoses; he is like a character endowed with sumptuous wardrobe who perpetually changes costume ... With our own concept of man such a view is impossible, but it is possible with a broader representation of what is human. For the Melanesian, a glance, in fact, is enough to give the form of humanity to an animal*” (1979 [1947]: 24-25).

But in the Early Bronze Age rock art of Bohuslän, to be human is not emphasised. Rather it is the capacity of boats animals, and celestial features and things to transform into each other through the possession of a common ‘soul’ or spirit, but these moves across the alterity divide are not complete.

From c 1600 BC the demand for ships and maritime technologies and skills from the developing Bronze Age in the Danish Isles complemented by the demand for amber in international exchanges, began to transform this legacy by first intensifying it. Ships are depicted literally as bulls or having bull like characteristics. No doubt the need for bull like potency would imply that the spirit of the ship would have equal powers to survive long distance voyaging and natural disasters as trading expeditions departed into the North Sea. Rock Art as ritual depictions of the idealised sending out and insuring the return of sea going expeditions is not unusual in later periods and elsewhere precisely because of the endurance of the images cut into stone. However this ship-bull potency – was to be transformed through the Bronze Age by the addition of an anthropomorphised warrior bull element.

#### THE BODILY INCORPORATION OF THE BULL FEATURE

In the Later bronze Age, the rock art changes and indicates a second (warrior) insider/outside dichotomy). These differences may be related to changing perceptions of society and personhood in the BA. During the transition from the EBA to the LBA, southern Scandinavia underwent some major geopolitical changes due to new exchange networks, amber and over-exploitation of soil in the west (Kristiansen & Rowlands 1998:96-97). This process may have triggered hostile and antagonistic situations, putting factors such as war and conflict to a more central theme. The depiction of anthropomorphs changes dramatically during the BA. From being an anonymous, ephemeral and collective feature during the EBA, more or less adjusted after the ship, into a large central feature during the LBA often displayed in hostile or antagonistic way.

As is well known the warrior ethos is prevalent in the wider European Bronze Age context and as an image of a power of foreign origin it does not replace the bull-ship power of alterity from the EBA but rather fuses with it. The anthropomorphic bull figure holding weapons dominates, in some cases quite literally holding a carved ship in its hands. Described as some of the most well-known examples of the LBA warrior figures in the rock art, bodies are bull-like with massive calves, thighs and shoulders as well as the distinctive bi-horned head (fig 3). In contrast with the EBA where human figures are scarcely present and appear ephemeral and incorporated into the bull-ship image, from the Late bronze Age onwards, it is the violence of the massive bull-warrior figure that dominates.

The bull warriors depicted in the rock art are not accompanied by evidence of actual bronze metalwork or burials which suggests that the rock is not simply a surface for images to be inscribed upon but is an active material of some sort. This makes more sense of the way fine detailed images of weapons and armour would appear on stone reliefs in S.W. Iberia and elsewhere as part of the spread of the bull-warrior-ship cult.

## CONCLUSION

In this paper we have argued for that the production of rock art in Scandinavia is intimately associated with the metal trade, responding in a very delicate way to changes in metal routes and networks. We have also argued for the notion that the Bronze Age rock art in Scandinavia could be seen as a fusion of an older structure coming from the North that was being revitalized by a new content from the south when Scandinavia became dependent on copper and tin from Europe. At the same time starts the first phase of figurative rock art in the mentioned areas in southern Scandinavia. These hybrid features may be regarded as exclusive ‘social codes’ or ‘core values’ shared over a large part of Europe. In Scandinavia these codes, we believe, were articulated and most vividly expressed in rock art showing representations of bulls, ships, representations of the sun as for concentric circles, oxhide ingots and later on armed bi-horned humans associated with ships.

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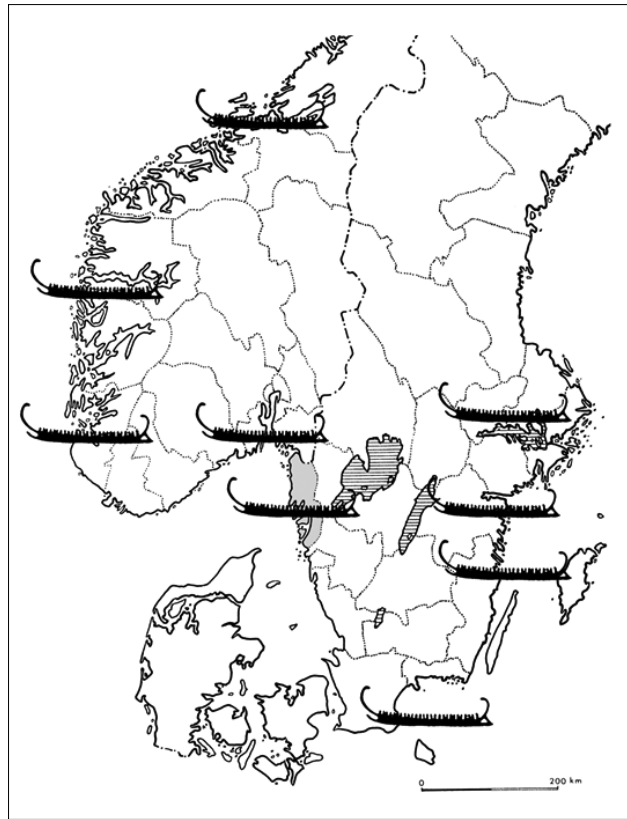


Fig. 1. The ship image denotes the regions with figurative rock art in southern Scandinavia dated to 1600 BC.

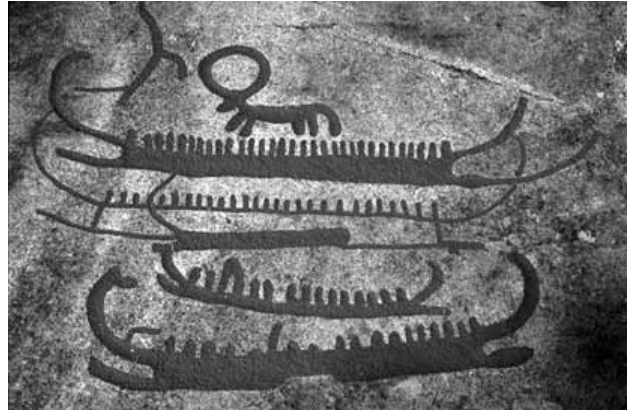
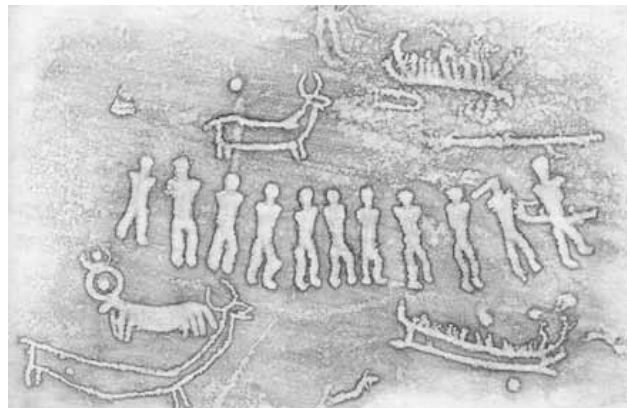


Fig. 2. Bulls and ship depictions from the Tanum and Kville area in West Sweden  
Top left; Tanum 12, Top right Tanum 25, Bottom left Tanum 351 & Bottom right Kville 159. Source: SHFA





Fig 3. Oxhide ingot depicted on the panel Kville 157.



Fig 3. Anthropomorphic bull-figures, warriors holding weapons from the Tanum area. Source :SHFA

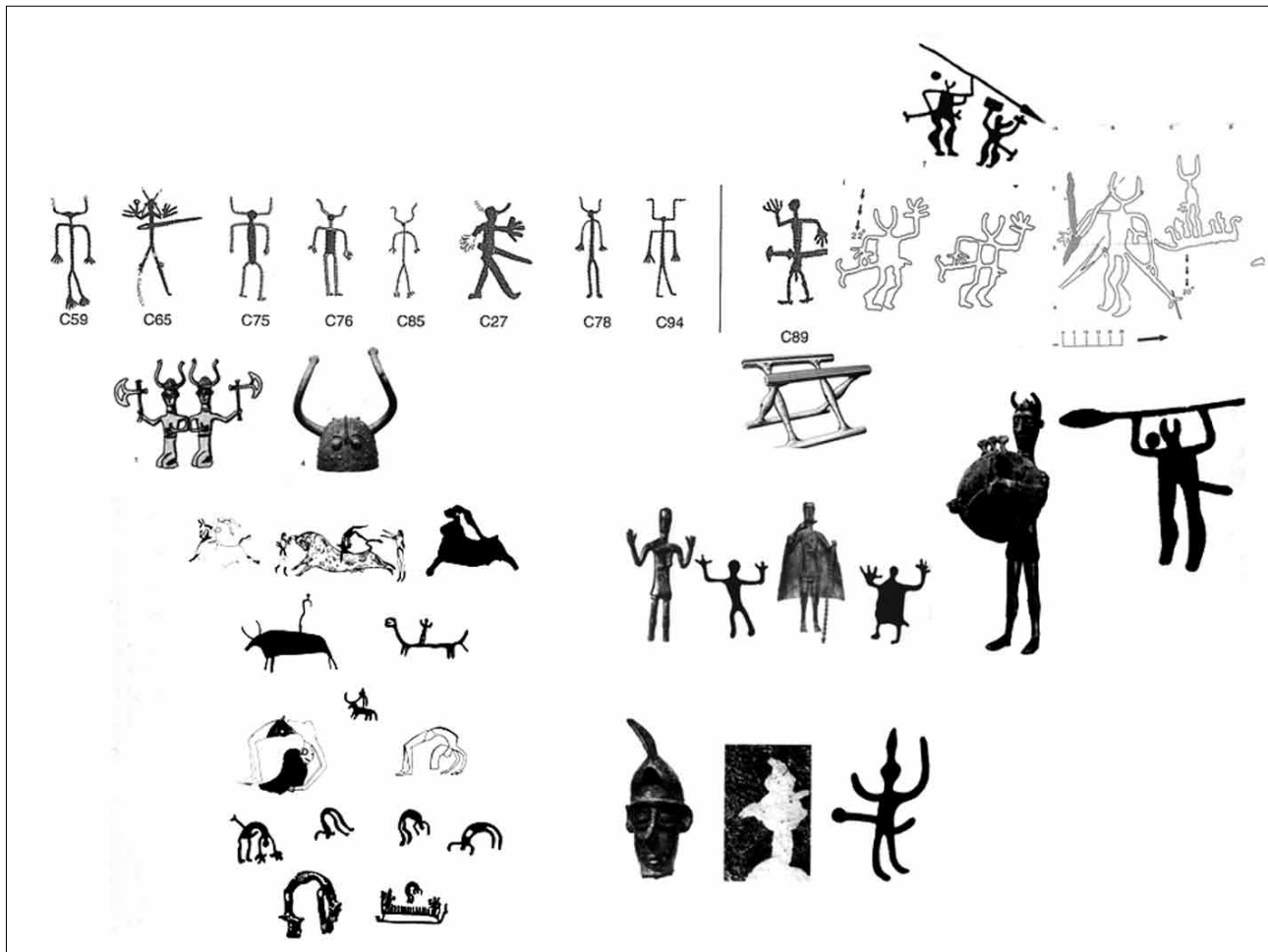


Fig. 5. Cosmopolitical codes from different parts of BA Europe. At the top warriors in Spanish rock art marked with C Swedish rock art to the left with, no marks. Mid-section: Horned figurines from Grevesvænge, the horned helmet from Viskø, and the camp stool from Guldhøj, all from Denmark. Bottom left: Acrobats and bulls from the Mycenaean world and from Scandinavian rock art (after Winter 2002). Bottom right. Warriors on Nuragic figurine compared with Scandinavian rock art (after Rowlands & Ling 2013).

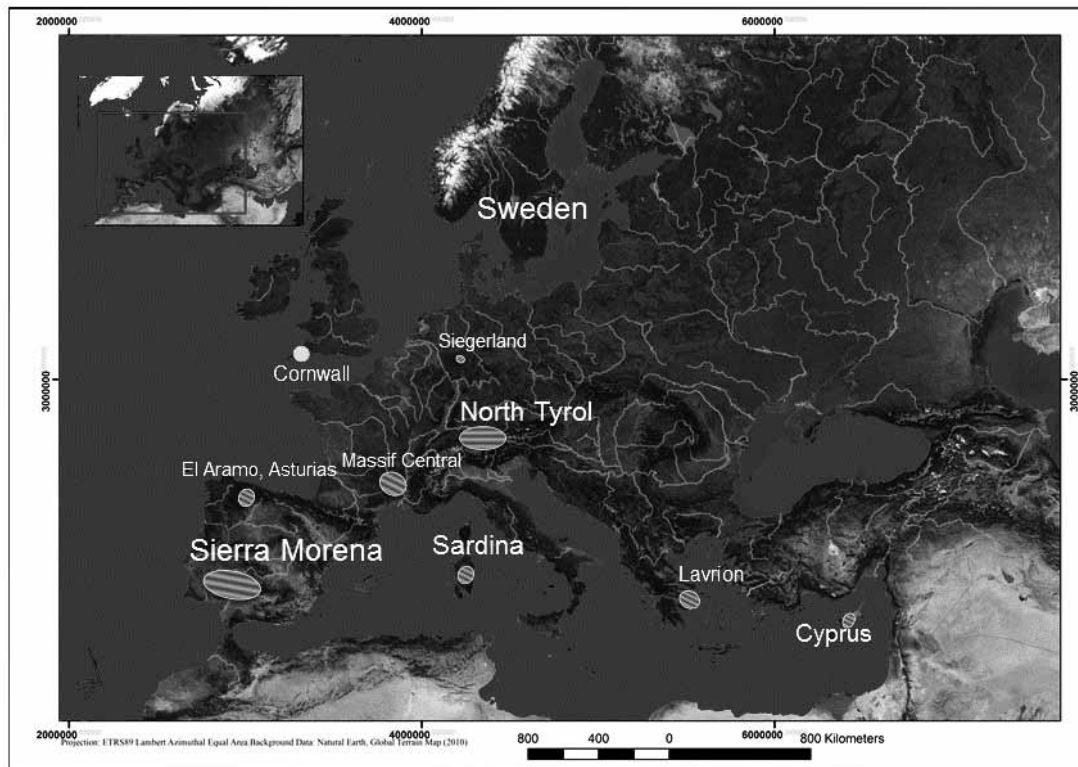


Fig 6. The mining districts in Europe that match Swedish BA artefacts in terms of lead isotopes.