

Chapter 6

Fast Like a War Canoe: Pragmamorphism in Scandinavian Rock Art



Christian Horn

Introduction

Scandinavian rock art is a rich source of information regarding societies and people's lives during the Bronze Age. Rock art was made for the purpose of expressing thoughts in an idealized form, including beliefs, perceptions, ideologies and myths. Warriors, rivalries, violent encounters and travels are depicted on the rocks, all based on real-life experiences as far as the archaeological record can tell us (Ling 2012; Fyllingen 2003; Kjær 1912; Frei et al. 2015; Kristiansen and Larsson 2005; Ling et al. 2013). However, several social and mental filters, i.e. ideology, perception, expectation, tradition and intention, must have shaped and influenced the images before they were carved (Bertilsson 1989: 315; Ling and Cornell 2010; Toreld 2012; Bevan 2015). Previous work on the subject has shown that rock art was not necessarily stable over time and that images were not conceived as complete compositions from the outset. Several researchers have pointed out that panels were built up over time, with new motifs being added as late as the Late Iron Age. Particular lines were often re-engraved ostensibly to reactivate certain parts of an image; this is evident in those cases in which the newly carved lines show in a lighter colour than the rest of the carving (Bengtsson 2004; Ling 2008; Goldhahn and Ling 2013; Nilsson 2012; Hauptman Wahlgren 2004). However, no researcher has hitherto entertained the notion that later re-engravings could have *transformed*, subtly or openly, the carved motifs, thus fundamentally altering their original meanings. As a matter of fact, research has used superimpositions as means to build relative chronologies for Scandinavian rock art (e.g. Burenhult 1980), while the few studies that go beyond this seem to imply that later additions are nothing but

C. Horn (✉)
University of Gothenburg, Gothenburg, Sweden
e-mail: christian.horn@gu.se

upgrades of the original motifs (e.g. Fredell 2003: 229). The chapter aims to explore the social implications of the transformation of rock art. However, since a wholesale interpretation of such a rich and diverse corpus of rock art would be problematic, the chapter will concentrate on a particular group of figures, i.e. those in which body parts are replaced by objects.

At the heart of the following considerations lies a group of images that merges human bodies and objects, i.e. boats and weaponry. These carvings represent a small but significant group in rock art data comprising over 3800 individual anthropomorphic figures which were compiled in a database by the author for a spatial network analysis of human figures in Scandinavian rock art. These figures interact with different objects that have been identified partly by reference to the archaeological record but also by interpreting objects and assigning a specific function to them based on their form. The database was analysed using MS Excel and the social network analysis software UCINet 6 and Gephi. Naturally, anthropomorphic images are mainly found in regions rich in rock art, namely, Tanum, Uppsala (both Sweden) and Østfold, Norway (Fig. 6.1). Overall, the human figures under discussion date to the Nordic Bronze Age, possibly excluding the first and the last periods (Table 6.1).¹

In the following pages, after a description of the images in question, the theoretical concept of pragmamorphism will be deployed to interpret the carvings. Pragmamorphism is the infusion of body parts with qualities of objects (Derman 2012). This paper seeks to explore this group of images and what they might tell us about warriors, body images and material objects. The questions to be investigated include:

- What kind of relationship is depicted between objects and bodies?
- How was the body of a warrior perceived?
- Which bodily characteristics were important in a warrior?

Rock Art and Warriors in Southern Scandinavia

Not considering the tens of thousands of cup marks occurring in the region, figurative rock art exists in southern Scandinavia with a plethora of motives including ships, humans, horses, oxen, birds, wagons and ploughs. With over 19,000 depictions, canoes dwarf the number of human figures documented in the area (Ling 2008); still, the latter make up a substantial amount of engravings with over 3500 in Bohuslän alone (Bertilsson 1987). Undoubtedly, land-focussed images also exist,

¹As a brief technical note, it should be mentioned here that the abbreviation RAÄ refers to the cataloguing system of the Swedish National Heritage Board (Riksantikvarieämbetet). The rock art images represented in the illustrations have been redrawn from rubbings, tracings and photographs available on the website of the Swedish Rock Art Research Archive (www.shfa.se). In Figs. 6.3, 6.4 and 6.5, the image under discussion has been coloured black, while the surrounding images are grey. This will enable the reader to focus on the particular position of human body and attached objects.

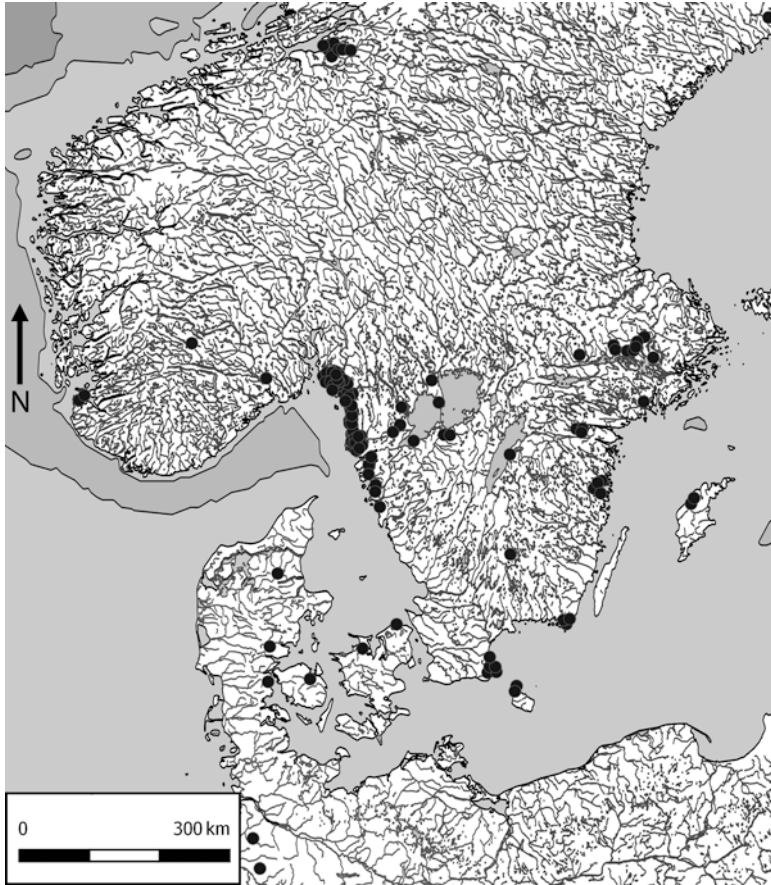


Fig. 6.1 Map of anthropomorphic rock carvings in southern Scandinavia (major sites only)

Table 6.1 Periodization of the Nordic Bronze Age (Montelius 1917; Olsen et al. 2011)

Period I	1750/1700–1500 BC
Period II	1500–1300 BC
Period III	1300–1100 BC
Period IV	1100–920 BC
Period V	920–720 BC
Period VI	720–550 BC

which depict agricultural practices including ploughing (RAÄ Tanum 193:1) and animal herding (RAÄ Bottna 56:1) (Almgren 1927). However, in maritime locations a clear focus on canoes has been noted (Coles 2008; Ballard et al. 2004; c.f. Ling 2008). By projecting ship engravings on a map with the Bronze Age shoreline modelled on the land uplift, Ling was able to show that some might even have been applied from the sea while being in a canoe. This observation has led him to

hypothesize that seafaring practices and institutions such as maritime warriorhood may have been very important during the Nordic Bronze Age (Ling 2008, 2012). This can be seen on panels showing natural water flow marks crossing their surfaces, as the marks were often incorporated into the carved scenes. For example, canoes may have been placed at the centre of the water mark, or this may have been used to separate engravings (Bradley 2000; Bengtsson 2004). This seems to support the notion that rock art canoes and warriors were closely connected to waterways. Carvings often depict seemingly idealized warriors: muscular, phallic, sometimes horned and usually armed. Such stylistic conventions find a material expression in the rich contemporary graves and hoards that have yielded swords and spears, which, on occasion, are highly ornamented (Earle and Kristiansen 2010). This suggests that waterborne mobility would have played a central role in the construction of warrior identities in Bronze Age southern Scandinavia.

Following Alfred Gell's concept of secondary agency, Johan Ling and Per Cornell have argued that rock art was made with the intention of influencing outcomes in the real world (Ling and Cornell 2010; c.f. Gell 1998). Their view that rock carvings influenced human action by reinforcing social ideals (e.g. by encouraging travellers, frightening intruders, etc.) is based on the observation that canoe engravings are mostly close to the ancient shoreline. Since other rocks would have been available to Bronze Age artists, it was not necessary, from a practical standpoint, to engrave rock art using repeated percussive actions from a potentially unstable canoe. This choice may thus be interpreted as an entanglement of important social practices, namely, seafaring and the performance of rituals.

In the Nordic Bronze Age, direct evidence of warfare exists, among other things, in the form of combat marks on weaponry (Horn 2013b; Kristiansen 1984, 2002); sites of violent conflict such as the Tollense Valley battlefield, Germany (Brinker et al. 2014; Chap. 3, this volume); a mass grave of massacre victims from Sund, Norway (Fyllingen 2003, 2006); and a male burial with a spear tip embedded in his pelvis from Over Vindinge, Denmark (Kjær 1912). In rock art, killing scenes displaying the use of swords and spears provide further evidence of the existence of warriors (Toreld 2012, 2015). This, and the presence of weapons in male burials, indicates that actual fighting lay at the heart of Bronze Age warrior identities. Whether those who claimed this identity were actually those who fought is, for the purpose of this paper, relatively unimportant, although the combat wear visible on the weapons from contemporary graves does suggest that those imbued with warrior identities were also involved in real combat practices (Horn 2013b; Kristiansen 1984, 2002).

Based on the observation that important features and passages in maritime travel, such as narrow straits, acted as hotspots for the ritual deposition of weaponry used in combat as well as the carving of figurative rock art, it has been argued that waterborne raiding was an important aspect of violent conflict during the Nordic Bronze Age (Horn 2016b; Melheim and Horn 2014). This is substantiated by the observation that the same maritime features and passages were also important for Viking Age raiding activities, because they are placed in strategic locations that facilitate fast transport and enable control over exchange routes (Horn 2016b). If we analyse

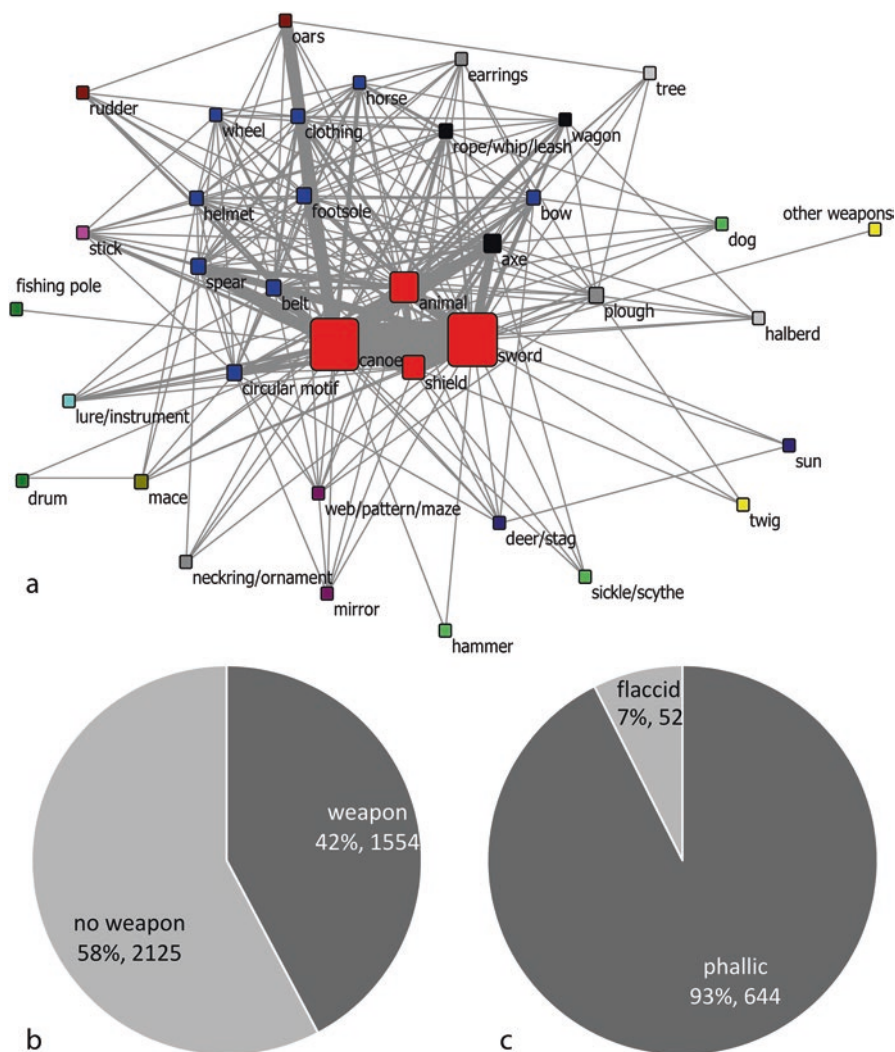


Fig. 6.2 (a) Network pattern of objects associated with anthropomorphic figures; (b) anthropomorphic figures with weapons vs. those without weaponry; (c) phallic figures vs. figures with flaccid genitals

our database by means of pie charts and network analysis, we can make three general observations supporting the notion that warriors, violent conflict and maritime practices were highly important in Nordic Bronze Age societies:

- Boats are linked to human figures in general and warrior figures in particular (Fig. 6.2a; Ling 2008).
- About a third of all humans possess weapons (Fig. 6.2b; see also Nordbladh 1989).

- When sex is depicted, most of the warriors are phallic (Fig. 6.2c; see also Kristiansen 2014b; Skogstrand 2014; Yates 1993).

This further indicates that such images were based on, and in turn reaffirmed, maritime practices – above all seafaring. They were also connected to certain social institutions, in particular maritime warriorhood (Ling 2008: 203, Ling 2012; Kristiansen 2014b). We can also assume that the high prestige, which must have been connected to the warrior ideal, was grounded in the actual involvement in violent action, which possibly aimed to maintain the flow of metal into southern Scandinavia and reinforce tribal alliances (Kristiansen and Suchowska-Ducke 2015). This involvement could have played out at two levels: organizing raids and warfare facilitated by waterborne mobility and actively participating in the raids as a boat crewmember and fighter.

It must be said, however, that human figures in Scandinavian rock art have been interpreted in a variety of ways, including gods (Kaul 2003; Kristiansen 2014a; cf. Goldhahn and Ling 2013). Although the images possess recurring normative features that could possibly represent godly attributes, it is argued here that they are too varied to be deities. Rather, these figures may refer to the realm of the ancestors and heroes engaged in ritual and other social practices (Ling and Cornell 2010; Coles 2003; Goldhahn and Ling 2013; Fari 2003; Kristiansen 2014a). There is also a wider argument to be made against the interpretation of anthropomorphic figures as gods, at least in most cases. Generally, social organization in the Nordic Bronze Age is thought to be based on decentralized polities – the so-called chiefdoms (Kristiansen 2007). In this context, in order to stabilize power relations, chiefs would have needed to control the flow of raw materials as well as the playing out of conflict and spiritual matters (Kristiansen and Larsson 2005; Earle et al. 2015). However, as most rock art sites are accessible and widely visible, it can be presumed that rock art was inherently hard to control (Earle 2013). In this context, carving practices may be seen as political arenas used by chiefs to strengthen their support and attract followers. This could have been achieved through the depiction of popular myths taken from a shared oral heritage, for example, iconic episodes from tales or poems narrating the deeds of heroes and ancestors. Whether the images were carved and re-carved by the chiefs themselves, or by commoners, cannot be determined at present. Whichever the case, the rock art sites are best interpreted as arenas for the playing out of local politics rather than locales used for the expression of a normative, strictly regulated religion.

Furthermore, it is clear that images were added to and transformed over time in a wide variety of ways, for example, by constantly adding new images to existing panels (Bengtsson 2004), by re-carving lines to emphasize particular features (Hauptman Wahlgren 2002, 2004) and by reusing cup marks as heads in human figures (Horn 2016a). This indicates forms of active engagement with the rock art, which seem to be more in line with ancestral or hero worship than the worship of some deity, for which we would expect to see the panels being treated as sacrosanct and perhaps immutable. We may therefore conclude that stories, maritime practices or social archetypes such as ancestors and heroes were depicted on the rocks, rather than gods (Earle 2013; Ling and Cornell 2010; Melheim 2013).

Morphing Things into Body Parts

Certain rock art panels display a particular transformation of human figures: body parts and objects morphing into each other. For example, sometimes the line that indicates the sword sheath seems to be prolonged in front of the body (Fig. 6.3a and b). It would be reasonable to maintain that this is the hilt extending at crotch level, because it would naturally extend here if the sword was carried on a belt around the hips. However, there are good reasons to argue that this depicts at once the sword's hilt and the person's phallus. This kind of representational ambiguity can be seen in

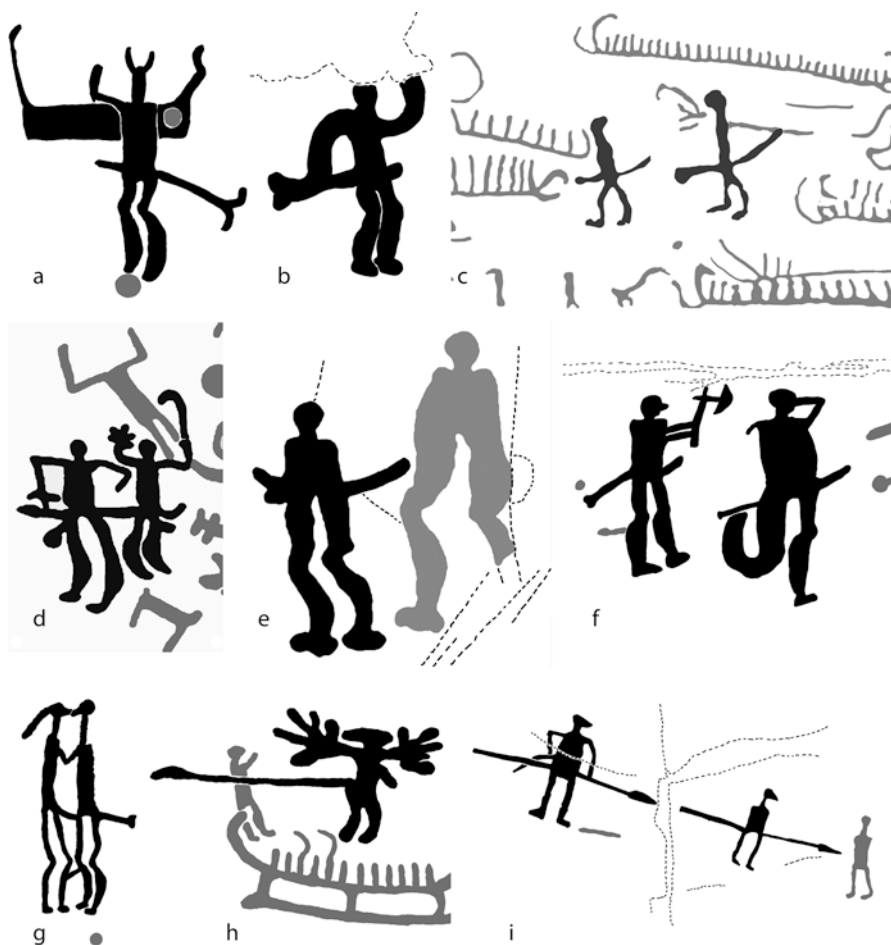


Fig. 6.3 (a) Färlev, Bro RAÄ 607:3; (b) Balken, Tanum RAÄ 262:1; (c) Bjørngård I, Stjørdal Askeladden ID: 7204–3; (d) Säm, Tossene RAÄ 97:1; (e) Södra Torp, Kville RAÄ 204:1; (f) Fossum, Tanum RAÄ 255:1; (g) Vitlycke, Tanum RAÄ 1:1; (h) Aspeberget, Tanum RAÄ 12:1; (i) Fjäll, Bro RAÄ 33:1

particular in certain figures, which were engraved with greater anatomical details than most. Here, the ‘hilt’ sometimes includes testicles and/or the glans (Fig. 6.3c, d and e). In other cases, the line curves upwards – a feature unknown on Bronze Age sword hilts which, however, is compatible with a phallus in a state of arousal (Fig. 6.3e and f). Occasionally, the two lines do not quite match up, thus further reinforcing the ambiguity between objects and body parts (Fig. 6.3f). In all these cases, it may be suggested that the hilt and phallus were deliberately equated with one another. This is further supported by sexual intercourse scenes (Fig. 6.3g) which also depict the phallus as a continuation of the sword sheath (Fari 2003). Sporadically, other weapons are depicted in a similar position, for example, spears (Fig. 6.3h and i).

Less frequent and more complex are depictions of canoes morphing into human body parts. These can take various forms. Most frequently, on canoes a longer line, for example, the keel line, extends in front and behind human beings at the hips. This is the typical placement for the combination penis/hilt and sheath mentioned above. In this case, too, it can reasonably be argued that the keel metaphorically stands for the sheath and the prow for the phallus (Fig. 6.4a, b and c). At least 157 cases have been identified in which canoes and human bodies form such hybrid figures. Despite occasional interpretative difficulties, this occurs too frequently, and the placement of objects and anatomical parts is too precise to be a mere coincidence. It is my contention that these depictions would bring boats and phalli into an intentionally ambiguous relationship and, in a sense, one that allowed equivocating one with the other. Moreover, where lines of canoes extend through the body, the carvers’ intention was arguably to morph canoe, sword and phallus into one another.

Canoes also replace other body parts. Anthropomorphic figures may use ships for arms and prows for legs (Figs. 6.1a and 6.4d, e). Conversely, certain rock carvings allow for an inverse perception of these figures in that arms can imitate typical, if simplified, canoe shapes and legs may stand for prows (Fig. 6.4f, g). At times, human figures are constructed from multiple boats, while in other cases, humans appear to be hidden within compositions of multiple boats (Fig. 6.5a). Lastly, canoes may be carved as having legs or hands instead of prows (Fig. 6.5b, c). Taking all these depictions into account, there appears to be a considerable degree of variability in the morphing of canoes into body parts. The range of possibilities to build human bodies with object seems to represent a continuum of abstraction from the replacement of smaller parts of the body to a quasi-complete construction of the body from objects. This blurs the distinction between humans and things, perhaps suggesting that people in the past may not have considered the two as distinct and separated entities (Olsen 2010; Fowler 2004: Table 2.1).

Some of these superimpositions may be accidental, because older eroded engravings might have been hard to discern for new carvers. However, most of the features discussed above are arranged very neatly and show consistent matchings of objects and body parts. For example, rarely do boats intersect human bodies at an oblique angle – a fact that indicates an awareness of extant carvings. Moreover, on most panels, there would have been enough space to carve new pictures without tampering with the old ones. This can be appreciated in the many cases in which Bronze

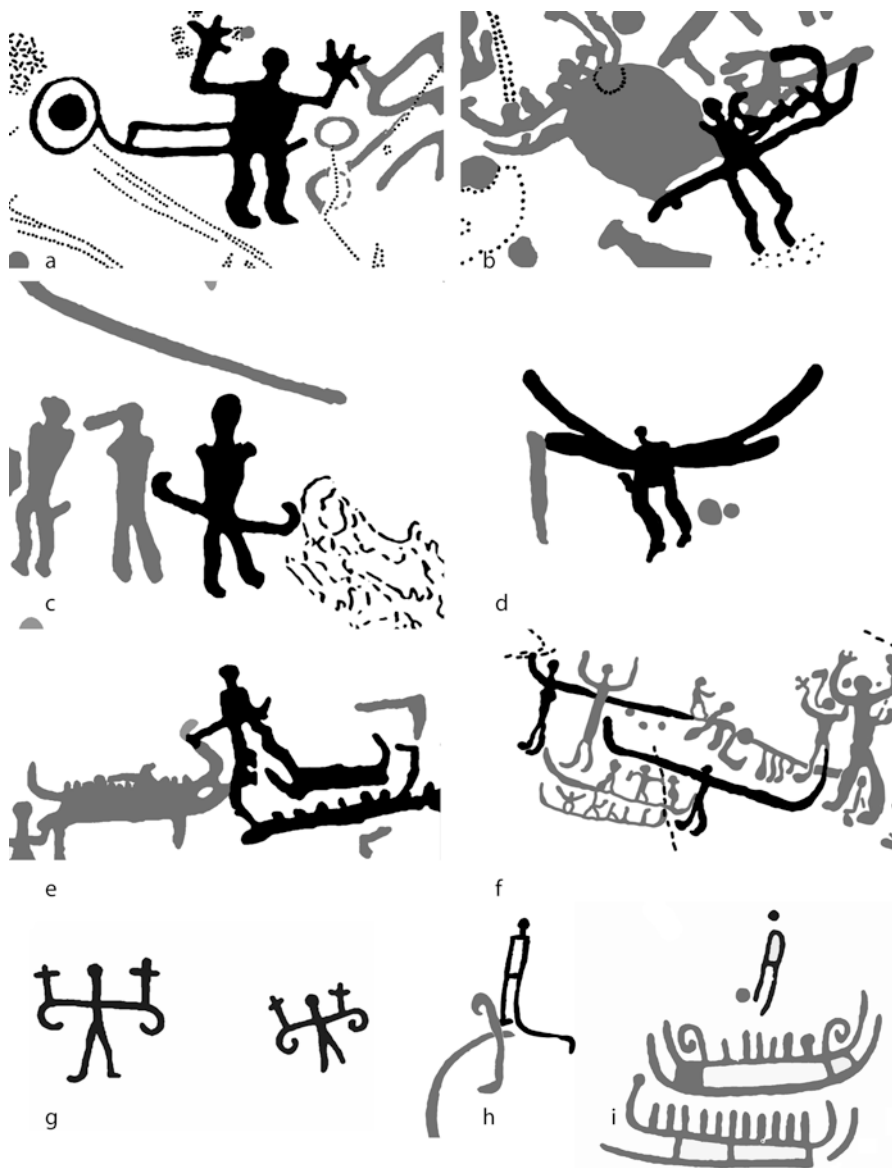


Fig. 6.4 (a) Gisslegärde, Bottna RAÄ 74:1; (b) Övre Tun, Svenneby RAÄ 17:1; (c) Aspeberget, Tanum 25:1; (d) Tuvene, Tanum RAÄ 302:2; (e) Torsbo, Kville RAÄ 157:1; (f) Høpestad I, Telemark Askeladden ID: 101851; (g) Askum, Askum RAÄ 57:1; (h) Vitlycke, Tanum RAÄ 1:1; i Askum, RAÄ 68:1

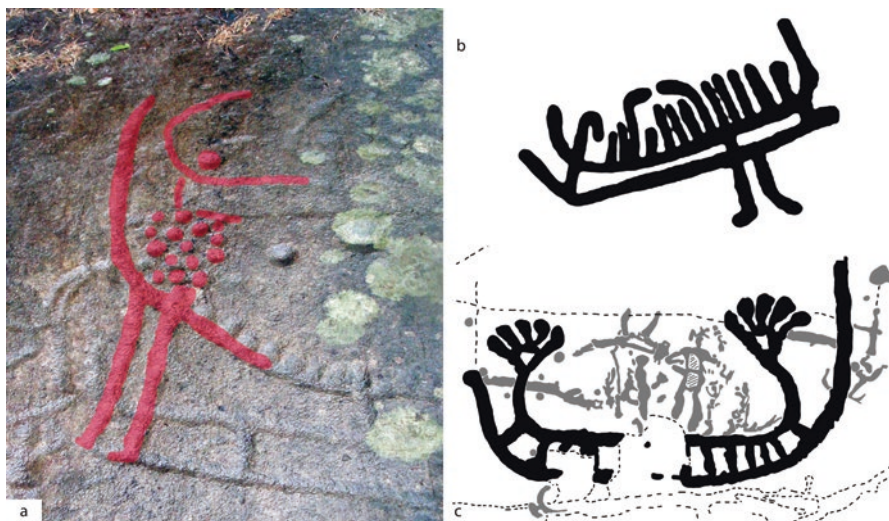


Fig. 6.5 (a) Kalleby, Tanum 406:1; (b) Askum RAÄ 6:1; (c) Backa, Brastad RAÄ 1:1

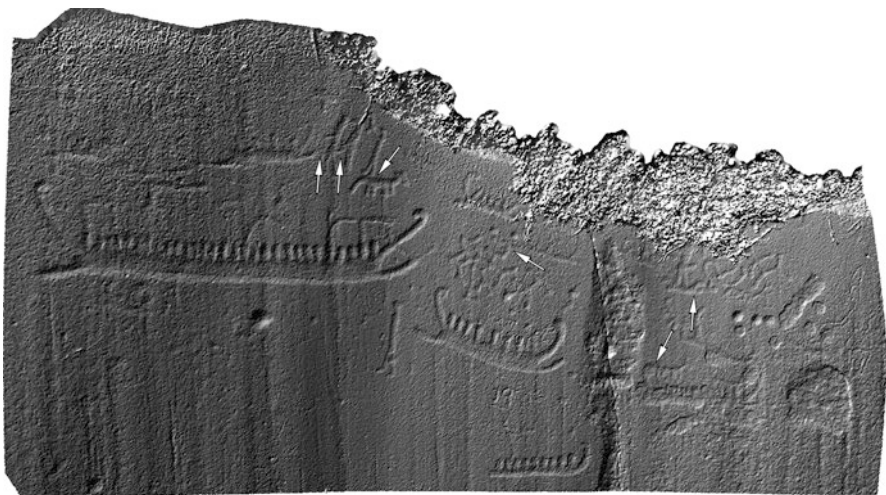


Fig. 6.6 Examples of figures placed close to each on a rock art panel, showing no or very limited crosscuttings; Hoghem, RAÄ Tanum 160 (by Rich Potter using SfM)

Age carvers decided to add new, separate images to previously engraved panels, as they normally avoided intersecting older carvings. For example, a panel from Hoghem (RAÄ Tanum 160:1) displaying two humans in a sexual intercourse scenes. They are very close to each other, but show no intersection. Another telling example is provided by an animal whose back is enclosed within a ships prow, with again neither figure crosscutting the other (Fig. 6.6). Therefore, none of the super-

impositions and fusing of carvings discussed above appears to be coincidental. It must be concluded that these human-object hybrids are deliberate and meaningful compositions. It might not always be possible to determine which feature, if the body or the object, was carved first and which came second, but at some point in time, the decision was made to morph ships, other objects and body parts into each other and equate them with one another.

Pragmamorphism: Body Parts and Material Qualities

In the Scandinavian Bronze Age, objects like canoes and weapons were functionally linked to social practices such as travel, warfare and exchange. All these practices have a bodily dimension in that they require activities to be carried out in the real world. By referring to Mauss' techniques of the body (Mauss 1992), it is possible to understand how things could affect bodily motions in various social circumstances (Horn 2014; see also Warnier 2011; Malafouris 2008). In activities such as raiding, fighting and seafaring, particular body parts (e.g. the arms) may have been perceived as especially important. During these activities, certain distinctive qualities linked to them – for example, the attribute of possessing *strong* arms – might have come to the fore. The phallus, in contrast, may have had a more stable meaning and was perhaps used to assert masculinity and virility in most circumstances (Bevan 2015; Horn 2013a). Furthermore, in addition to representing meaningful social links between objects, action, bodily techniques, body parts and body qualities, the equation of objects and body parts on rock carvings may indicate how people perceived and experienced their own bodies. This consideration calls for the introduction of a new concept, that of *pragmamorphism*, which further aids explorations of the meaning of hybrid human-object engravings.

The concept of pragmamorphism as defined by physicist and economist Emanuel Derman (2011a, b, 2012) is particularly helpful for analysing the morphing of objects into body parts. The term itself is derived from the Greek word *pragma*, meaning 'material object', and *morphē*, meaning 'shape'. Taken at face value, boats with legs and hands may seem to represent anthropomorphized canoes, because human body features are added to boats. However, as I have argued above, most such carvings are not merely boats with added body parts (but see Fig. 6.5b, c for possible exceptions). Similarly, I have argued that swords and other weapons morph into particular body parts but are not in themselves equipped with parts of the human body. In reality, what we see in these carvings are humans with parts of their bodies replaced by objects – a practice that makes both the objects and the human anatomy inherently ambiguous. I maintain that this is a different semantic category to anthropomorphism and one which expresses a different set of ideas.

The concept of pragmamorphism does not posit that objects like ships and swords are imbued with human qualities such as personhood or agency, although of course this cannot be excluded. More simply, it claims that body parts and entire human beings are partly constructed from material objects, as the etymological defi-

inition of the term suggests (see above). Importantly, however, the term has a deeper meaning, just like anthropomorphism signifies more than just objects to which human features have been added. Reflecting its Greek etymology, the term signifies a form that embodies an essential inner substance.

Derman maintains that pragmatomorphism 'refer[s] to attributing to humans the properties of inanimate things' (Derman 2011a); it is an infusion of human minds with material qualities (Derman 2011a, b, 2012). A key problem faced by archaeologists, however, is that a process like this does not necessarily leave material traces. As we cannot address prehistoric minds directly, we have to rely on inferences from their material remains. This, of course, is an archaeological platitude. Nonetheless, rock art presents us with uniquely qualified evidence for gaining insights into past perceptions of bodies and their relation to material culture, because both are depicted in direct connection to each other. We may assume that, when depicting human bodies, prehistoric rock carvers modelled the images based on their own bodies. Arguably, this means that people put thoughts into rock art, because before the images emerged on the rocks, they had to picture them in their minds (Lewis-Williams 2002; Sacco 2004). As Ling and Cornell (2010) argued, rock art may have been carved with the intention of influencing outcomes in the real world by infusing the pictures with secondary agency.

Pragmatomorphizing limbs, phalli and entire humans carved on rocks might suggest that specific body parts, or even the body as a whole, were imbued with certain characteristics of the objects with which they were equated. We still do this today. Equating body parts with material characteristics is a metaphorical process frequently invoked when we highlight a person's qualities. For example, if we say that someone has a 'heart of gold', we do not mean that the person literally has a golden heart. Similarly, if we point out that someone's brain works like a computer, we do not mean that that person literally performs his thinking in binary code. Material qualities are used metaphorically because they are thought to surpass normal human capabilities. In the metaphors mentioned above, gold is used as it is thought of as purer than any human heart could ever be, while a computer is thought of as faster, more logical and precise than any human brain could possibly be. By doing this, we imply that a particular person, or a part of their body, surpasses the ability of average humans.

For the modern mind, things and bodies are perceived to be more separate than it may have been the case for past societies, in which, in particular, there seems to be an especially close relationship between fighters and their weapons. This relationship has been discussed by a number of researchers using concepts including body maps, body perception, techniques of the body and habitus in the Maussian sense of the word (Horn 2014; Malafouris 2008; Molloy 2008; Warnier 2011). In these readings, the fighters and their weapons become mechanical pairs of elements (Mauss 1992), i.e. they form a functional unit through training and frequent practice in combat. Weapons thus merge into the body map of fighters; they become artificial limbs and could then be perceived as body parts (Malafouris 2008).² In this way, the

²However, contrary to Malafouris' (2008) argument, it is assumed here that this was a temporary

sword becomes an integral part of the warrior, and by morphing the sword-phallus into a canoe, the whole warrior is imbued with those characteristics of the canoe that are perceived to surpass a normal fighter's abilities.

Strong Like a Bronze Sword, Fast Like a War Canoe: Interpreting Bronze Age Rock Art

Much of southern Scandinavian rock art revolves around speedy and forceful mobility and movement in general. This is evident in the omnipresent ships found at coastline locations and in the foot soles, horses and wagons found on higher ground (Coles 2003, 2008; Skoglund 2013a, b; Bertilsson 1987; Bradley 2009; Ling 2008). Moreover, exaggerated calf muscles of many human figures emphasize their capability to stride with determination, while procession scenes are also linked to movement (Coles 2003; Taylor 2005).

The speed and conduct of movement was important in Bronze Age warfare tactics such as raiding. Momentum is imperative to surprise defenders, overrun enemies or chase down fleeing victims. Examples can be found throughout history, from Caesar's forced marches leading, for example, to the capture of Vesontio (Ezov 1996), to Macedonian King Alexander moving his phalanxes at high speed (Arrian 1976) and up to the German 'Blitzkrieg' of World War II (Jersak 2000). Paul Virilio has explored the link between velocity and warfare and has incorporated it into his dromology, i.e. 'the science of speed' (Virilio 1986: 47), arguing that environments that enable high speed see a higher frequency and intensity of violence. He specifically mentions maritime and waterborne mobility as a case in point (Virilio 1986: 73–80). In the Nordic Bronze Age, violent encounters are typified by numerous pieces of evidence including the mass grave with massacre victims from Sund, Norway (Fyllingen 2003); the male burial from Over Vindinge, Denmark, who had a spear tip stuck in his back (Kjær 1912); and the Tollense Valley battlefield with over 200 victims identified thus far (Jantzen et al. 2011). Moreover, pictorial evidence suggests that Bronze Age boats were potentially able to travel at high speed. They were arguably designed in a similar way to the Iron Age ship from Hjortspring (Kaul 2003), which has been proven to be seaworthy and capable of fast travel (Vinner 2003: 117–118).

perception, because people in the past may have been aware that they could remove objects from their bodies. This means, for example, that a sword could be put aside and a canoe left ashore. One archaeological indication of the awareness that objects and humans were ultimately perceived as separated entities may be seen in hoarding and single-object depositions. Here, humans gave up weapons and separated themselves from them (Horn 2011). This is also the case in barrows in which the deceased are usually separated from their swords, as they were put into the sheaths and laid at the side of the dead, and not placed as extensions of limbs, e.g. in the hands of the dead (see Randsborg and Christensen 2006).

Pragmamorphism comes into play here as a way to imbue a person with desirable qualities. Warriors, or their legs, may have been infused with the ability of canoe-like speed by using older ship carvings as legs or carving the warriors' legs in a ship-like style. As pointed out above, momentum is related to speed and is especially important for forceful attacks. Therefore, older canoe carvings or canoe-like depictions may have been important ways to liken arms, swords and perhaps whole bodies to canoe-like momentum and power.

Certain objects may have had broader and more contextual meanings. Swords, for example, were not only used in warfare but were also deposited in high-status graves and hoards (Aner and Kersten 1973–2014; Oldeberg 1974, 1976; Maraszek 2006; Kristiansen 1974; Melheim and Horn 2014). Therefore, we may observe on the rock carvings male genitals pragmamorphized into swords as ways to express links to violence but also to social power and the capacity to rule over others and to retain a fellowship; it may perhaps also signify that the phallus could be turned into an implement of sexualized violence. We have long known that, in several ancient societies, the sexuality of hero-warriors was described in aggressive terms, e.g. in the Gilgamesh epos. Here, Enkidu is described on tablet I, column IV, as '*attack[ing], fucking (sic) the priestess*' (Gardner and Maier 1985: 77). In another passage, Gilgamesh reserves for himself the right of the first night with freshly married wives as indicated in tablet II, column II (Gardner and Maier 1985). Sexualized violence is a means to exert power. Sigmund Freud pointed out that weapons symbolize male genitals through many ages and cultures and defined two material characteristics that provide semantic substance for this symbolic equation (Freud 1999: 156–158 170):

- Resemblance of physical characteristic: long, hard and pointed
- The capability to penetrate

In this respect, the pragmamorphism of genitals as swords, spears and canoes opens up the possibility of a disturbing new reading of rock art as depicting, at least in part, sexualized violence. Timothy Taylor pointed out that themes like slavery, rape and the like are understudied in archaeology because they disquiet modern researchers (Taylor 2005). However, it is evident that abduction, rape and other forms of sexualized violence have been employed as a tactic in many a violent encounter through history, from modern wars to Native American conflict (Burch 2007: 22; Seifert 1996; Gottschall 2004: 129–130). Since the evidence at our disposal is ambiguous, it is uncertain whether such acts were committed during the Nordic Bronze Age. However, this is something that we ought to consider, as the portrayal of 'hyper-masculinity' and the existence of warfare do provide a fertile ground for the emergence of sexualized violence (Bevan 2015, 2006; Yates 1993; Horn 2013b; Kristiansen 2013; Vandkilde 2014).

Conclusion

The carving of rock art may have been triggered by many different events such as a crew embarking on a raid, the initiation of young warriors or even fertility rites wishing for a large breed of powerful new warriors. As rock art scenes are complex and extremely varied, there is no need to settle on just one interpretation, since rock art likely marked several socially sanctioned events and practices. In this chapter, I have argued that the transformation of body parts into material objects in southern Scandinavian rock art was a deliberate act. I have then introduced the concept of pragmamorphism to explore the thoughts and beliefs underpinning such acts. I have contended that pragmamorphism was more than just a stylistic process of equation or replacement. It infused body parts with certain desirable characteristics expressed by the objects. This may have been done in order to infuse the body of a warrior with the rapid mobility and the momentum of canoes, thus making this individual a more capable raider. The engraving of these images may have been driven by the desire to influence the outcome of raids and other violent encounters. I have also argued that rock art was used to reinforce social ideals. Fighters may have moulded themselves according to ideals of what a warrior ought to be. Similarly, young males may have found or assumed an identity to which they aspired and which we can also see archaeologically in graves and hoards; this is the warrior ideal. Changes in weapon technology throughout the Bronze Age, their widespread adoption and their connection to a high social status indicate that swords, in particular, were highly valued and that some of their qualities were perceived as superior. The combat marks visible on them show that this perception was being based on actual experience. This may have been the case for canoes as well, but this can only be inferred from rock art as we lack the physical remains of Bronze Age Scandinavian boats. Their superior material characteristics may have included speed, just as deadliness must have been associated to swords. Such cultural equations may have instilled into fighters the desire to be deadly like a sword and into raiders to be fast like a war canoe.

References

- Almgren, O. (1927). *Hällristningar och kultbruk*. Stockholm: Kungl. Vitterhets Historie och Antikvitets Akademien.
- Aner, E., & Kersten, K. (1973–2014). *Funde der älteren Bronzezeit des nordischen Kreises in Dänemark, Schleswig-Holstein und Niedersachsen*. Neumünster: Wachholtz.
- Arrian. (1976). *Anabasis of Alexander: Book I*. In P. A. Brunt (Ed.), *Anabasis of Alexander*. Cambridge: Harvard University Press.
- Ballard, C., Bradley, R., Myhre, L. N., & Wilson, M. (2004). The ship as symbol in the prehistory of Scandinavia and Southeast Asia. *World Archaeology*, 35(3), 385–403.
- Bengtsson, L. (2004). *Bilder vid vatten*. Göteborg: Institutionen för arkeologi, Univ.
- Bertilsson, U. (1987). *The rock carvings of Northern Bohuslän: Spatial structures and social symbols*. Stockholm: University of Stockholm.

- Bertilsson, U. (1989). Space, economy and society: The rock carvings of northern Bohuslän. In T. B. Larsson & H. Lundmark (Eds.), *Approaches to Swedish prehistory: A spectrum of problems and perspectives in contemporary research* (British Archaeological Reports, International Series, Vol. 500, pp. 287–321). Oxford: Archaeopress.
- Bevan, L. (2006). *Worshippers and warriors: Reconstructing gender and gender relations in the prehistoric rock art of Naquane National Park, Valcamonica, Brescia, northern Italy* (British Archaeological Reports, International Series, Vol. 1485). Oxford: Archaeopress.
- Bevan, L. (2015). Hyper-masculinity and the construction of gender identities in the bronze age rock carvings of southern Sweden. In J. Ling, P. Skoglund, & U. Bertilsson (Eds.), *Picturing the Bronze Age* (Swedish rock art series, Vol. 3, pp. 21–36). Oxford: Oxbow Books.
- Bradley, R. (2000). *An archaeology of natural places*. New York: Psychology Press.
- Bradley, R. (2009). *Image and audience: Rethinking prehistoric art*. Oxford: Oxford University Press.
- Brinker, U., Flohr, S., Hauenstein, K., Piek, J., Mittlmeier, T., & Orschiedt, J. (2014). Die menschlichen Skelettreste aus dem Tollensetal: Ein Vorbericht. In D. Jantzen, J. Orschiedt, J. Piek, & T. Terberger (Eds.), *Tod im Tollensetal: Forschungen zu den Hinterlassenschaften eines bronzzeitlichen Gewaltkonfliktes in Mecklenburg-Vorpommern* (Beiträge zur Ur- und Frühgeschichte Mecklenburg-Vorpommerns 50, pp. 191–208). Schwerin: Landesamt für Kultur und Denkmalpflege Mecklenburg-Vorpommern.
- Burch, E. S. (2007). Traditional native warfare in western Alaska. In R. J. Chacon & R. G. Mendoza (Eds.), *North American indigenous warfare and ritual violence* (pp. 11–29). Tucson: University of Arizona Press.
- Burenhult, G. (1980). *Götalands hällristningar (utom Göteborg och Bohus län samt Dalsland): The Rock-carvings of Götaland (excluding Gothenburg county, Bohuslän and Dalsland)*. Stockholm: University.
- Coles, J. (2003). And on they went...: Processions in Scandinavian Bronze Age rock carvings. *Acta Archaeologica*, 74(1), 211–250.
- Coles, J. (2008). A land apart: Environments and rock art in northernmost Bohuslän, Sweden. *The Antiquaries Journal*, 88, 1–36.
- Derman, E. (2011a). *The perils of pragmatismorphism*. Available at <http://www.emanuelderman.com/writing/entry/the-perils-of-pragmatismorphism>. Accessed 3 Mar 2016.
- Derman, E. (2011b). Unruly humans vs the lust for order. *New Scientist*, 212(2835), 32–33.
- Derman, E. (2012). Pragmatismorphism. In J. Brockman (Ed.), *This will make you smarter* (p. 115). London: Doubleday.
- Earle, T. (2013). The 3M: Materiality, materialism and materialization. In S. Sabatini & S. Bergerbrant (Eds.), *Counterpoint: Essays in archaeology and heritage studies in honour of Professor Kristian Kristiansen* (British Archaeological Reports, International Series, Vol. 2508, pp. 353–360). Oxford: Archaeopress.
- Earle, T. K., & Kristiansen, K. (2010). *Organizing Bronze age societies: The Mediterranean, Central Europe, and Scandinavia compared*. New York: Cambridge University Press.
- Earle, T., Ling, J., Uhnér, C., Stos-Gale, Z., & Melheim, L. (2015). The political economy and metal trade in Bronze Age Europe: Understanding regional variability in terms of comparative advantages and articulations. *European Journal of Archaeology*, 18(4), 633–657.
- Ezov, A. (1996). The “Missing Dimension” of C. Julius Caesar. *Historia: Zeitschrift für Alte Geschichte*, pp. 64–94.
- Fari, C.H. (2003). Hieros-Gamos: Helleristingstradisjon og myteverdenen i det østlige middelhavsområdet. *Oslo Arkeologiske Serie* 5.
- Fowler, C. (2004). *The archaeology of personhood: An anthropological approach*. London: Routledge.
- Frei, K. M., Mannering, U., Kristiansen, K., Allentoft, M. E., Wilson, A. S., Skals, I., Tridico, S., Nosch, M., Willerslev, E., Clarke, L., & Frei, R. (2015). Tracing the dynamic life story of a Bronze Age Female. *Scientific Reports*, 5, 10431.

- Fredell, Å. (2003). *Bildbroar: Figurativ bildkommunikation av ideologi och kosmologi under sydsandinavisk bronsålder och föromersk järnålder*. Göteborg: Göteborgs universitet, Institutionen för arkeologi.
- Freud, S. (1999). Neue Folge der Vorlesungen zur Einführung in die Psychoanalyse. In A. Freud (Ed.), *Gesammelte Werke* (Vol. 15, pp. 1–208). Frankfurt am Main: Fischer.
- Fyllingen, H. (2003). Society and violence in the Early Bronze Age: An analysis of human skeletons from Nord-Trøndelag, Norway. *Norwegian Archaeological Review*, 36(1), 27–43.
- Fyllingen, H. (2006). Society and the structure of violence: A story told by Middle Bronze Age human remains from central Norway. In T. Otto, H. Thrane, & H. Vandkilde (Eds.), *Warfare and society: Archaeological and social anthropological perspectives* (pp. 319–329). Aarhus: Aarhus University Press.
- Gardner, J., & Maier, J. R. (1985). *Gilgamesh: Translated from the Sîn-leqi-unninū version*. New York: Vintage Books.
- Gell, A. (1998). *Art and agency: An anthropological theory*. Oxford: Clarendon Press.
- Goldhahn, J., & Ling, J. (2013). Bronze age rock art in northern Europe: Contexts and interpretations. In H. Fokkens & A. F. Harding (Eds.), *The Oxford handbook of the European Bronze Age* (pp. 270–290). Oxford: Oxford University Press.
- Gottschall, J. (2004). Explaining wartime rape. *Journal of Sex Research*, 41(2), 129–136.
- Hauptman Wahlgren, K. (2002). *Bilder av betydelse: Hällristningar och bronsålderlandskap i nordöstra Östergötland*. Lindome: Bricoleur Press.
- Hauptman Wahlgren, K. (2004). Switching images on and off: Rock carving practices and meaning in Bronze Age life-world. In G. Milstreu & L. Bengtsson (Eds.), *Prehistoric pictures as archaeological source: [symposium ... at Tanums Hällristningsmuseum in 2002] = Förhistoriska bilder som arkeologisk källa* (pp. 149–165). Tanumshede: Tanums Hällristningsmuseum.
- Horn, C. (2011). Deliberate destruction of halberds. In M. Uckelmann & M. Mödinger (Eds.), *Bronze Age warfare: Manufacture and use of weaponry* (British Archaeological Reports, International Series, Vol. 2255, pp. 53–65). Oxford: Archaeopress.
- Horn, C. (2013a). Violence and virility. In S. Sabatini & S. Bergerbrant (Eds.), *Counterpoint: Essays in archaeology and heritage studies in honour of Professor Kristian Kristiansen* (British Archaeological Reports, International Series, Vol. 2508, pp. 235–241). Oxford: Archaeopress.
- Horn, C. (2013b). Weapons, fighters and combat: Spears and swords in Early Bronze Age Scandinavia. *Danish Journal of Archaeology*, 2(1), 20–44.
- Horn, C. (2014). Harm's way—an approach to change and continuity in prehistoric combat. *Current Swedish Archaeology*, 21, 93–116.
- Horn, C. (2016a). Cupmarks. *Adoranten*, 2015, 29–43.
- Horn, C. (2016b). Nothing to lose: Waterborne raiding in southern Scandinavia. In H. Glørstad, A. Z. Tsigaridas Glørstad, & L. Melheim (Eds.), *Interdisciplinary perspectives on past colonisation, maritime interaction and cultural integration* (pp. 109–127). Equinox: Sheffield.
- Jantzen, D., Brinker, U., Orschiedt, J., Heinemeier, J., Piek, J., Hauenstein, K., et al. (2011). A Bronze Age battlefield? Weapons and trauma in the Tollense Valley, north-eastern Germany. *Antiquity*, 85(328), 417–433.
- Jersak, T. (2000). Blitzkrieg revisited: A new look at Nazi war and extermination planning. *The Historical Journal*, 43(2), 565–582.
- Kaul, F. (2003). The Hjortspring boat and ship iconography of the bronze age and early pre-roman iron age. In O. Crumlin-Pedersen & A. Trakadas (Eds.), *Hjortspring: A pre-roman iron-age warship in context* (Ships and Boats of the North, Vol. 5, pp. 187–207). Roskilde: Viking Ship Museum.
- Kjær, H. (1912). Et mærkeligt arkæologisk-antropologisk Fund fra Stenalderen. *Aarbøger for Nordisk Oldkyndighed og Historie*, 58–72.
- Kristiansen, K. (1974). En kildekritisk analyse af depotfund fra Danmarks yngre bronzealder (periode IV–V): Et bidrag til den arkæologiske kildekritik. *Aarbøger for Nordisk Oldkyndighed og Historie*, 119–160.

- Kristiansen, K. (1984). Krieger und Häuptlinge in der Bronzezeit Dänemarks. Ein Beitrag zur Geschichte des bronzezeitlichen Schwertes. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz*, 31, 187–208.
- Kristiansen, K. (2002). The tale of the sword—swords and swordfighters in Bronze Age Europe. *Oxford Journal of Archeology*, 21(4), 319–332.
- Kristiansen, K. (2007). The rules of the game: Decentralised complexity and power structures. In S. Kohring & S. Wynne-Jones (Eds.), *Socialising complexity: Approaches to power and interaction in the archaeological record* (pp. 60–75). Oxford: Oxbow Books.
- Kristiansen, K. (2013). Kriegsführung in der Bronzezeit. In Staatliche Museen zu Berlin, Eremitage St. Petersburg, Historisches Museum Moskau und Staatliches Puschkin Museum der bildenden Künste (Eds.), *Bronzezeit. Europa ohne Grenzen 4.-1. Jahrtausend v. Chr* (pp. 194–205). Berlin: Tabula Rasa.
- Kristiansen, K. (2014a). Religion and society in the Bronze Age. In L. B. Christensen, O. Hammer, & D. A. Warburton (Eds.), *The handbook of religions in ancient Europe* (pp. 77–92). London: Routledge.
- Kristiansen, K. (2014b). The dialectics of gender: Ritualizing gender relations in Late Bronze Age southern Scandinavia. In H. Alexandersson, A. Andreëff, & A. Bünz (Eds.), *Med hjärta och hjärna: En vänbok till professor Elisabeth Arwill-Nordbladh* (pp. 339–354). Göteborg: Göteborgs universitet.
- Kristiansen, K., & Larsson, T. B. (2005). *The rise of Bronze Age society: Travels, transmissions and transformations*. Cambridge: Cambridge University Press.
- Kristiansen, K., & Suchowska-Ducke, P. (2015). Connected histories: The dynamics of bronze age interaction and trade 1500–1100 bc. *Proceedings of the Prehistoric Society*, 81, 361–392.
- Lewis-Williams, J. D. (2002). *The mind in the cave: Consciousness and the origins of art*. London: Thames & Hudson.
- Ling, J. (2008). *Elevated rock art. Towards a maritime understanding of Bronze Age rock art in northern Bohuslän, Sweden*. Göteborg: SOLANA.
- Ling, J. (2012). War canoes or social units? Human representation in rock-art ships. *European Journal of Archaeology*, 15(3), 465–485.
- Ling, J., & Cornell, P. (2010). Rock art as secondary agent? Society and agency in Bronze Age Bohuslän. *Norwegian Archaeological Review*, 43(1), 26–43.
- Ling, J., Hjärthner-Holder, E., Grandin, L., Billström, K., & Persson, P.-O. (2013). Moving metals or indigenous mining? Provenancing Scandinavian Bronze Age artefacts by lead isotopes and trace elements. *Journal of Archaeological Science*, 40(1), 291–304.
- Malafouris, L. (2008). Is it ‘me’ or is it ‘mine’?: The Mycenaean sword as a body-part. In D. Borić & J. Robb (Eds.), *Past bodies: Body-centered research in archaeology* (pp. 115–123). Oxford: Oxbow Books.
- Maraszek, R. (2006). *Spätbronzezeitliche Hortfundlandschaften in atlantischer und nordischer Metalltradition*. Halle: Landesmuseum für Vorgeschichte.
- Mauss, M. (1992). Techniques of the body. In J. Crary & S. Kwinter (Eds.), *Incorporations* (pp. 455–477). Chicago: Zone Press.
- Melheim, A. L. (2013). An epos carved in stone: Three heroes, one giant twin, and a cosmic task. In S. Sabatini & S. Bergerbrant (Eds.), *Counterpoint: Essays in archaeology and heritage studies in honour of Professor Kristian Kristiansen* (British Archaeological Reports, International Series, Vol. 2508, pp. 273–282). Oxford: Archaeopress.
- Melheim, L., & Horn, C. (2014). Tales of hoards and swordfighters in early bronze age Scandinavia: The brand new and the broken. *Norwegian Archaeological Review*, 47(1), 18–41.
- Molloy, B. P. C. (2008). Martial arts and materiality: A combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC. *World Archaeology*, 40(1), 116–134.
- Montelius, O. (1917). *Minnen från var forntid. I*. Stockholm: Norstedt & Söners.
- Nilsson, P. (2012). The beauty is in the act of the beholder: South Scandinavian rock art from a uses of the past perspective. In I.-M. Back Danielsson, F. Fahlander, & Y. Sjöstrand (Eds.), *Encountering imagery: Materialities, perceptions, relations* (pp. 77–96). Stockholm: Stockholm University.

- Nordbladh, J. (1989). Armour and fighting in the south Scandinavian Bronze Age, especially in view of rock art representations. In T. B. Larsson & H. Lundmark (Eds.), *Approaches to Swedish prehistory: A spectrum of problems and perspectives in contemporary research* (British Archaeological Reports, International Series, Vol. 500, pp. 323–333). Oxford: Archaeopress.
- Oldeberg, A. (1974). *Die ältere Metallzeit in Schweden I*. Stockholm: Almqvist & Wiksell.
- Oldeberg, A. (1976). *Die ältere Metallzeit in Schweden II*. Stockholm: Almqvist & Wiksell.
- Olsen, B. (2010). *In defense of things: Archaeology and the ontology of objects*. Lanham: Altamira Press.
- Olsen, J., Hornstrup, K. M., Heinemeier, J., Bennike, P., & Thrane, H. (2011). Chronology of the Danish Bronze Age based on 14C dating of cremated bone remains. *Radiocarbon*, 53(2), 261–275.
- Randsborg, K., & Christensen, K. (2006). Bronze age oak-coffin graves: Archaeology & dendro-dating. *Acta Archaeologica*, 77(1), 246.
- Sacco, F. (2004). Vorderansicht oder Profil: Eine Frage des Stils? In F. Sacco & G. Sauvet (Eds.), *Vom Wesen des Menschen: Ein Dialog zwischen Prähistorie und Psychanalyse* (pp. 114–144). Giessen: Psychosozial-Verlag.
- Seifert, R. (1996). The second front: The logic of sexual violence in wars. *Women's Studies International Forum*, 19(1/2), 35–43.
- Skoglund, P. (2013a). Images of shoes and feet: Rock-art motifs and the concepts of dress and nakedness. *Norwegian Archaeological Review*, 46(2), 159–174.
- Skoglund, P. (2013b). Iron age rock-art: A view from Järrestad in south-East Sweden. *European Journal of Archaeology*, 16(4), 685–703.
- Skogstrand, L. (2014). *Warriors and other men: Notions of masculinity from the late bronze age to the early iron age*. PhD thesis, University of Oslo. Oslo.
- Taylor, T. F. (2005). Ambushed by a grotesque: Archaeology, slavery and the third paradigm. In M. Parker Pearson & I. J. Thorpe (Eds.), *Warfare, violence and slavery in prehistory* (British Archaeological Reports, International Series, Vol. 1374, pp. 225–233). Oxford: Archaeopress.
- Toreld, A. (2012). Svärd och mord: Nyupptäckta hållristningsmotiv vid Medbo i Brastad socken, Bohuslän. *Formvännern*, 107, 241–252.
- Toreld, A. (2015). Sword-wielders and manslaughter: Recently discovered images on the rock carvings of Brastad, western Sweden. In J. Ling, P. Skoglund, & U. Bertilsson (Eds.), *Picturing the Bronze Age* (Swedish rock art series, Vol. 3, pp. 167–176). Oxford: Oxbow Books.
- Vandkilde, H. (2014). Breakthrough of the Nordic Bronze Age: Transcultural warriorhood and a Carpathian crossroad in the sixteenth century BC. *European Journal of Archaeology*, 17(4), 602–633.
- Vinner, M. (2003). Sea trials. In O. Crumlin-Pedersen & A. Trakadas (Eds.), *Hjortspring: A pre-roman iron-age warship in context* (Ships and Boats of the North, Vol. 5, pp. 103–118). Roskilde: Viking Ship Museum.
- Virilio, P. (1986). *Speed and politics: An essay on dromology*. Los Angeles: Semiotext (e).
- Warnier, J.-P. (2011). Bodily/material culture and the fighter's subjectivity. *Journal of Material Culture*, 16(4), 359–375.
- Yates, T. (1993). Frameworks for an archaeology of the body. In C. Y. Tilley (Ed.), *Interpretative archaeology* (pp. 31–72). London: Bloomsbury.