



A SOCIAL SEMIOTIC FORAY OF BOAT IMAGES IN ROCK ART: COMMUNICATION BETWEEN TWO LOCAL SCANDINAVIAN COMMUNITIES

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Abstract - A social semiotic foray of boat images in rock art: Communication between two local Scandinavian communities. The Danish island of Bornholm and Simrishamn, Sweden are separated by 40 km across the Baltic Sea. Both areas are rich in Bronze Age artefacts, including rock carvings with boat images. Research indicates there was social communication between the two areas during the Bronze Age, but this is not a consensus. This contribution presents a synopsis of the two societies by looking into their cultural similarities and differences through social semiotics: analysing the interplay between text, context, agents, objects of meaning and social structures to understand how they work together. What are the similarities in the location, landscape and cultural aspects of the areas where rock art is found? What do the rock art images of the areas tell us? Communication between the two locations is highly probable, albeit with the only concrete finding being the Bornholm fibula.

Riassunto - Una semiotica sociale delle rappresentazioni di incursioni di barche nell'arte rupestre: scambi culturali tra due comunità locali scandinave.

L'isola danese di Bornholm e Simrishamn, svedese, si trovano a circa 40km divise dal Mar Baltico. Entrambe le aree sono ricche di artefatti dell'età del Bronzo e incisioni rupestri con immagini di barche; la ricerca indica che ci fossero scambi culturali tra le due aree durante questo periodo, ma questa non è l'opinione generale. Questo contributo presenta una sintesi delle due società osservando le analogie e le differenze culturali attraverso la semiotica sociale: analizzando l'interazione tra testo, contesto, agenti, oggetti di senso e strutture sociali per capire come esse abbiano lavorato insieme. Quali sono le similitudini tra località, paesaggio e aspetti culturali delle aree dove l'arte rupestre è trovata? Cosa ci dicono le immagini di arte rupestre in queste aree? La comunicazione tra queste due località è altamente probabile, anche se finora con il solo concreto ritrovamento della fibula di Bornholm.

Résumé - Voyage dans le sud de la mer baltique : communication entre deux communautés locales scandinaves de l'âge du bronze (Bornholm VS. Skåne)

Quarante kilomètres de mer Baltique séparent l'île danoise de Bornholm de l'île suédoise de Simrishamn. Ces deux régions sont riches en artefacts de l'âge du bronze, et comprennent notamment des gravures rupestres d'images de bateau. Des recherches montrent qu'il existait une communication sociale entre les deux régions durant l'âge du bronze, mais ce n'est pas un consensus. Cet article vise à présenter les deux sociétés en analysant leurs similarités et leurs différences culturelles à travers la sémiotique sociale : nous allons analyser les influences réciproques entre des textes, des contextes, des objets de signification et des structures sociales pour comprendre comment elles fonctionnaient ensemble. Quelles sont les similarités dans les lieux, les paysages et les aspects culturels des régions où l'on trouve de l'art rupestre ? Qu'est-ce que nous racontent les images d'art rupestre de ces régions ? Il est fortement probable que les deux régions communiquaient, bien que la seule découverte concrète soit la « fibule de Bornholm ».

INTRODUCTION

Rock art is a means of social communication. We may never know the full meaning of the images; however, understanding the images from the socio-cultural landscape around them may provide a method of meaning-making. Although much has been written about the boat images found in Scandinavia, little has been written from a social semiotic viewpoint. This paper will look at the social and cultural environs that surround the boat images of the Bronze Age (BA) found on the Danish island of Bornholm and the area of Simrishamn in southern Sweden (Figure 1).

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Social semiotics creates a process of understanding the carvings as a means of communication in BA society. It focuses on the social meaning-making of different systems, which could include verbal, visual, or concrete semiotic modes (elements), by investigating how these resources for communication form and transform social processes (Van Leeuwen, 2005). Social semiotics is a form of enquiry that does not offer ready-made answers. It offers ideas to formulate questions and ways of searching for answers: questions that are meant to encourage more questioning, to test ideas, to consider ideas independently-and then derive conclusions (Van Leeuwen, 2005).

EARLY SETTLEMENTS

When glaciers began to recede from the southern Baltic, c. 13,000 years ago, Denmark was connected to England and Sweden and Bornholm was connected to northern Germany. Around 7000 BC the ice melt rate increased faster than the rebounding uplift, creating a sound between Sweden and Denmark (Nørrevang, 1967). Subsequently, the North Sea filled the area between Denmark and Great Britain, and with the creation of the Baltic Sea Bornholm became isolated from Germany. Cultural expansion in Neolithic Scandinavia first took place in western Denmark in Jutland, moving east to the Danish islands and southern Sweden, and finally to Bornholm (Skak-Nielsen, 2004). Earlier settlements on Bornholm may have been first established by a northern migration from Germany when the island was still connected to the continent. Settlement finds show habitation from 8300 BC on Bornholm and c. 11,000 BC in southern Sweden (Skak-Nielsen, 2004; Bornholm Museum; Kommune, 2002). The BA replaced the Stone Age on Bornholm and southern Sweden c. 1700 BC. Many settlements have been found in both locations, primarily along the coast. Fibulae found in the area of Simrishamn closely resemble those found on the island: they are known as Bornholm fibulae. These ornate closures are dated to 1100 f. Kr./BC and have only been found in these two locations (Stoltz, 2005: 70). The multi-part fibula was most common in northern Europe. The emergence of fibulae implies changes in the materials used in making clothes and how they were worn (Stoltz, 2005).

COASTAL INFLUENCES

The waters around Scandinavia helped maintain strong Nordic cultural traditions and helped shape cultural connections during the BA (Kristiansen, 1998). Coastal locations allowed for communication over long distances, and social implications would have been derived from the trade and exchange of gifts, such as bronze and gold (Van de Noort, 2003). Prestige and status from outside the immediate social community was associated with such exchange, as the community would not send a middleman, due to the importance of the items being traded: only an elite member who understood the value of the trade would go (Van de Noort, 2003; Beck and Shennan, 1991). The involvement of younger members in long distance travel was part of a rite of passage as an important member/ future leader of the community (Beck and Shennan, 1991). Due to the danger and importance of expeditions, rituals may have been performed before the men left and may be the reason for the reoccurring theme of large fleets of ships in the carvings (Kristiansen, 1998). Kaul (1998) believes the boat must be the symbol of the period; see Figure 2.

Rock art placement near a water source must have been of social importance. Choosing such a location might signify some religious or power prestige affiliation (Coles, 2005). The granite (Bornholm) and quartzite (Simrishamn) surfaces would allow for the potentiality of the quartz crystal faces to highlight the outlines of the carvings at a specific time of day, and proximity near water would provide additional play of light from the water's reflection, creating a cosmological connection. Coles (2005) contends the location of the rock panels and the slope and condition of the surface may have been more important than the actual carvings.

METHODOLOGY

Social semiotics focuses on a multi-modal human meaning-making process. The methodology of social semiotics is based on the linguistic theory of Michael Halliday. In 1978 Halliday wrote: 'By their everyday acts of meaning, people act out their social structure, affirming their own status and roles, and establishing and transmitting the shared systems of value and knowledge ... in micro-encounters of everyday life where meanings are exchanged, language not only serves to facilitate and support other modes of social action that constitute its environment, but also actively creates an environment of its own ... The context plays a part in determining what we say; and what we say places a part in determining the context' (Halliday, 1978: 4-5). Emphasis is placed on how the socio-cultural environment determines how we create meaning.



To ease the understanding of how meaning is derived from images a concept called framing is used to show connect/disconnect of an image or symbol, superimposition of images, spacing, and the social and cultural influences surrounding them (Van Leeuwen, 2005: 13). Meaning that arises in social environments and in social interactions is the meaning that social semiotics is interested in (Kress, 2010:54). This method should provide a means to place a socio-cultural meaning on the images carved in rock. Were the images made to show power and prestige, or were they part of sacred rituals of the community? Why the dominance of boat images over images representing everyday life? How does meaning change when we separate one image from others on the panel, or remove it from its place in the landscape? Does a line of boats signify anything? These questions are considered in the following analysis.

BORNHOLM: THE PEARL OF THE BALTIC

Most of the carvings of boats are found at the northern end of the island from Hammersholm in the north to Allinge on the northeast coast: only 4 km separate the two areas. The sites investigated were: Madsebakke, Hammersholm and Blåholt/Brogård. The boat images are believed to be from the late BA, mostly from period V (Kaul, 1998).

MADSEBAKKE

This is Denmark's largest rock art panel with over 100 images on the panel, of which eleven are ships; some are similar to those found in Bohuslän, Sweden and Østfold, Norway (Nielsen and Kofod, 2006). Other images include footprints, cupmarks, parallel lines and a unique circle cross. The age variance in the images is 400 years (Bornholm's Welcome Center). An excavation at the foot of the panel uncovered the remains of a settlement dated from the Early Iron Age. Archaeologists believe that Madsebakke was a sacred place, extending significance to the greater area. Kaul (2006) suggests that the carvings are part of a greater ritual area.

Michael Thorsen, from the Bornholm Museum, discovered a panel in 2008: Madsebakke 6. It contains 9 ships, a snakelike figure, cupmarks and a swastika-type image on a south-facing slope. The boat images are tangled up in the snake. Near the widest part of the snake is a large cupmark that may represent the sun. Researchers from the Bornholm Museum suggest that the snake is guiding the boat. They also question whether the snake creates a metaphor connected to the Norse myth of *midgård* (Bornholm Museum). *Midgård* is middle earth, a place surrounded by an impassable ocean and home of a giant sea serpent that turns into a dragon (Figure 3).

The belief in Old Norse mythology was prevalent during the times of the Vikings, a time difference of some 1,000 years from the BA. Kaul (1998) cautions us in making connections with mythology to bring meaning to the boat images. It is not known when these myths were developed, but more than likely that over such a long period of time the names of the gods and their means of transport could have easily changed (Kaul, 1998). I agree with him; however, that there are other cultural myths that should be considered that are more time-appropriate.

Dragon-snakes are also part of Indo-European mythology, as they were believed to chase the daughter of the sun god's chariot through the daylight sky, capturing her at sunset and leading her into the dark night waters. Her twin brothers rescue her and point her to the east where she and her sun-disc are free for another day (Kristiansen, 2010: 97-8). It is plausible that the BA communities would have learned of this myth during trades with other areas. This also considers an internationally inspired ideology, as opposed to the Nordic mythology that has dominated rock art interpretation in Scandinavia.

BLÅHOLT/BROGÅRD

The panel at Blåholt is a flat, smooth surface 3 x 4 metres and contains 20 figures; 11 are boats that sail in three directions: north, east and west. All of them have extended prows turned up and inward and are all have double keel lines. The boat images date from 900 BC/period V (Kaul, 2006). One boat has a human on board, which is rare in Danish carvings (RANE-Bornholm).

Brogård is located in a wooded area within sight of Blåholt. The rock surface is flat and smooth measuring 1 x 5 metres. The panel is best viewed with the sun at a low angle; it is difficult to view the panel at other times of the day. There are five boats, similar to those found on Blåholt. Both sites sit at a relatively high point on the island, but today trees block the view towards the sea. If no vegetation existed during the BA, it is possible that all the sites investigated could have been within sight of one another and the sea.

HAMMERSHOLM

This site is on a high grazing hillside, northwest of Madsebakke, and within view of the ruins of a medieval fortress that sits 82 metres above the sea. The site has four boulders containing boat images. They are Hammersholm 1 and 2, which lie in the lower field, and Hammersholm 7 and 21 that lie at the crest of a hill. All boulders are within view of the sea. Due to the height of the hill the fortress stands on it is not possible to view the water to the north; however, it is from this point that the southern coast of Sweden can be viewed on a clear day.

Hammersholm 1 lies southeast has three boats and 21 cupmarks: it is relatively flat.

Hammersholm 2 is 10 x 3.5 metres and lies northeast/southwest. There are two boats, 81 cupmarks and several miscellaneous images.

Hammersholm 7 is 5 x 3.5 metres long and lies east-northeast/west-southwest. There are three boat images and 40 cupmarks. One of the boat images is similar to that of the Hjortspring boat dated from 350 BC.

Hammersholm 21 is 3 x 3 metres, with a single boat figure and one cupmark in the same area.

THE AREA OF SIMRISHAMN, SWEDEN: AN AREA RICH IN BA FINDS

The small town of Simrishamn lies along the east coast of southern Sweden, in the county of Skåne. The area yields many finds from prehistory, including the most swords found in Sweden (Ling, 2008: 42). Most of the rock carvings lie within close proximity to the coast. The rock in this area is a smooth greyish-blue quartzite. The altitude of the carvings lies 5–15 metres above the shoreline, which is 1–3 metres lower than it was during the BA (Ling, 2008). There are three locations with images of boats: Gladsaxe, Järrestad and Simrislund. In addition to boat images, there are many images of axes. The period of the carvings is 1699–1300 BC (RANE-Simrishamn).

Simris 27:1: The main panel is 18m x 10 m with c.170 images. The panel is flat, smooth surface that sits above the road and lies 500m from the coast. The central focus is the images of large ceremonial axes carried by small phallic men: this is thought to show the axes are more important than those who carry them (RANE). The axes are dated from the later Neolithic to the EBA. There are also numerous boats dated to the BA. The hulls of most of them are completely carved out with extended and curved prows, and crew marks dated to period II of the BA, as they appear to be similar to the boat on the Rörby sword found in Denmark from the same period. A second smaller panel lies a short distance inland and contains several images of boats (Kulturmiljö, RANE: Simrishamn).

Järrestad: The panel location is 5 km northwest from Simris 27 and is a wide, flat, slightly sloping surface 23 x 22 metres in size. There are approximately 1,270 images, including cupmarks, footprints, a few boats, one anthropomorphic figure called 'the dancer', snakes and some dagger images. Dating is suggested to be from Late Neolithic to EBA. Some images of daggers suggest a date to the Stone Age, as they resemble flint weapons found in the area (RANE:Simrishamn).

Gladsaxe 2: The panel is the capstone of a megalithic passage grave dated to 3700 BC and is 5 km northwest of Simrishamn. The panel is quartzite, and is 16 metres across, with the height of the overall mound at 1.5 metres. The carvings include seven large ships, axes, circle-crosses, animal(s) and 90 cupmarks, which are thought to be older than the other images (signage on site). The entrance of the grave faces east (Parson, 2009). An excavation in 1978 uncovered 4,000 potsherds along with polished flint axe fragments, amber beads, arrowheads and burnt human bones, suggesting that the site was used continuously through time for ceremonies. Previous to the 19th century the site was surrounded by boggy land, in the same way as all the megalithic graves in the area were located near the coast or in watery areas (Parson, 2009).

FRAMING THE BLÅHOLT PANEL ON BORNHOLM

As meaning changes, the message communicated changes. Framing allows an object, space or in this example an image and the interplay of its surroundings to provide meaning. The aim is to show that an image is defined differently depending on how we connect/disconnect the image from its surroundings and on the importance of socio-cultural aspects from its placement in the landscape.

The Blåholt panel was chosen because it is less well known and contains many interesting boat images. To begin we isolate one boat image (Figure 4). We view a night-ship with extended keel and prow lines, with nine extensions between the two keels. The dating is from period V. If we include the circle-crosses that are over it we could read the image as incorporating the sun in its journey. Extending this view to incorporate all the ships on the lower portion of the panel, we add a sun-ship



below it and a larger night-ship to the right of that, a smaller incomplete boat with two cupmarks, a larger boat with one human and what might be an incomplete human or animal, and a simple boat image that is an extension of the boat with the two figures on it. The last one has a cupmark at the aft of the image and the animal head stem in the fore with a partial circle with a centreline over its head, which may have been added at a later date. The panel shows a dominance of night-ships in close proximity to one another horizontally on the lower part of the panel.

Viewing the entire panel (Figure 5), we observe more boats, but in vertical positions going both northwest and southeast. There are no boats going horizontally across the top of the panel instead there is a large circle with a centred cupmark and with three cupmarks above it, placing it central to the vertical boats on either side of it. What meaning can be drawn from this positioning of boats, circles and cupmarks? The boats do not follow a logical pattern of movement between night and day. It appears there may have been some intent on showing movement between worlds (Kristiansen, 2010), and there is a likelihood that the images were created at different times, explaining some of the superimposed lines and the variety of directions.

Disconnecting one image from the panel supplies us with little meaning, but adding images around provides more information to understand which, if any, images belong together. Having knowledge of cosmological myths, both Nordic and Indo-European and reading the landscape as part of cultural area may provide a relationship for the images to a socio-cultural context that the creators of the images intended. The location of Blåholt between the two other locations places it within the vicinity of Iron Age settlements. Although no BA settlement remains have been found in the immediate area, settlements found in the area demonstrate a historical continuity in the land. Beach access near Madsebakke would have been easy, as there was little variance between sea level and the land.

Repeating this experiment on a Simrishamn panel would produce similar findings. The interesting difference here would be the boats in connection with the axes, horses and lurs. The fact that there are fewer boat images and more axe images may be related more to the difference in dating and the cultural values of the society. Simrishamn is part of the mainland and there may have been less of a need to use boat images to suggest power. However, the boat images seem to reflect some connection to cosmology and a cultural understanding of the sun's travel across the sky, researched by both Kaul (1998) and Kristiansen (2010). Many megalithic graves are found within close proximity of the rock art sites, suggesting historical continuity of societies over a long period of time.

DISCUSSION AND CONCLUDING REMARKS

Using the framework of social semiotics provides a means of analysing rock art panels in a socio-cultural context, as shown with the Blåholt panel. The intended meaning of rock art has been baffling researchers for years. Panels often contain hundreds of images, making it easy to blur the images together. Understanding the relationship of one image to another is ongoing, and framing can improve meaning-making through a socio-cultural lens, allowing researchers to systematically segregate, integrate, view overlaps, find common qualities among the images and see any distinct contrasts.

The similarities in the Simrishamn and Bornholm carvings lie in the socio-cultural context of the community. The carvings' close proximity to the coast and the known aspect of rituals taking place close to the many images point to the importance of locations, locations that were re-used over extended periods of time. Both areas seem bound by common beliefs reflected in their rock art: first, a belief system based on cosmology, with the sun being of great importance; and second, the images of boats suggest power and trade, and a rite of passage for young people to become future leaders in society. Further consideration should be given to the role of the carver(s) and his/her role in the community. The creation of rock art seems multimodal: The location of the panel, the socio-cultural act of carving, the positioning of images in relation to the sunlight would signify the image, and the relation of the carver to the community.

Communication between the two locations is highly probable, albeit with the only concrete finding being the Bornholm fibula; using boat images alone to contend that there was communication is speculative. Knowing the importance trade brought would indicate probable travel between the two locations. The earlier dating of boat images in Simrishamn are in agreement with a later movement of people from the area to Bornholm, where the boats are of a later period. Today, as then, the shortest distance between the two locations would be from Simrishamn to Allinge. From this research I would propose that there was communication between the two areas based on the evidence

of the Bornholm fibula, the known trade route in the area and the amount of bronze finds in both areas. This last point reflects the power and prestige established by BA society in general. The lack of boat finds from this period may be due to the changes in the landscape and the primarily rocky coasts in both of these locations.

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Fig 1: Location of Bornholm, Denmark and Simrishamn, Sweden (drawn by author).

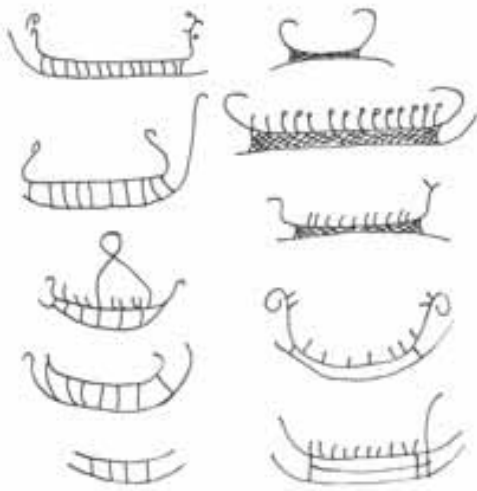


Fig. 2: Boat images on the left are from Bornholm (after Kaul 2004) dated from c. 900 BC- 500BC. From top down: Blåholt, Madsebakke (3), and Hammersholm7. The images to the right are from the Simrishamn area of Sweden and are dated from c.1700-900 BC. From top down: Simris (3), Järrestad, Gladsaxe 2. (drawings from personal documentation of the author, using Kauls dating method).



Fig. 3: Madsebakke 6- snake entangled with ship. Notice lower keel line and snake are one (drawn by author, after photo by Mogens F. Jensen, 2008).

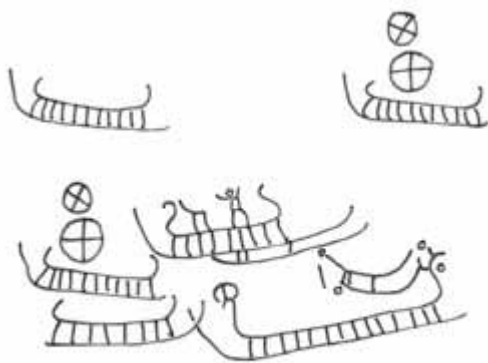


Fig. 4: Framing steps at Blåholt panel. An isolated boat taken from the panel (top left), the same boat with the addition of two circle crosses (top right), and the entire lower part of the panel (bottom) (drawn by author based on documentation by Kaul and Milstreu, 2001).

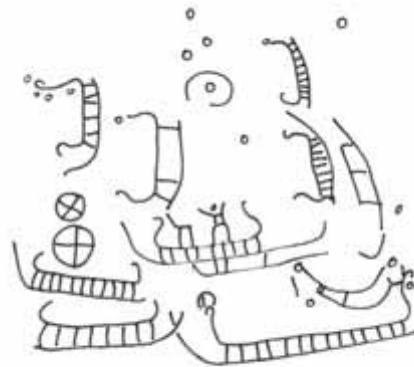


Fig 5: The entire Blåholt panel. (drawn by author based on documentation by Kaul and Milstreu, 2001).