

# Caught in a net

## An analysis of net-figures in the rock art of Bohuslän and southern Sweden

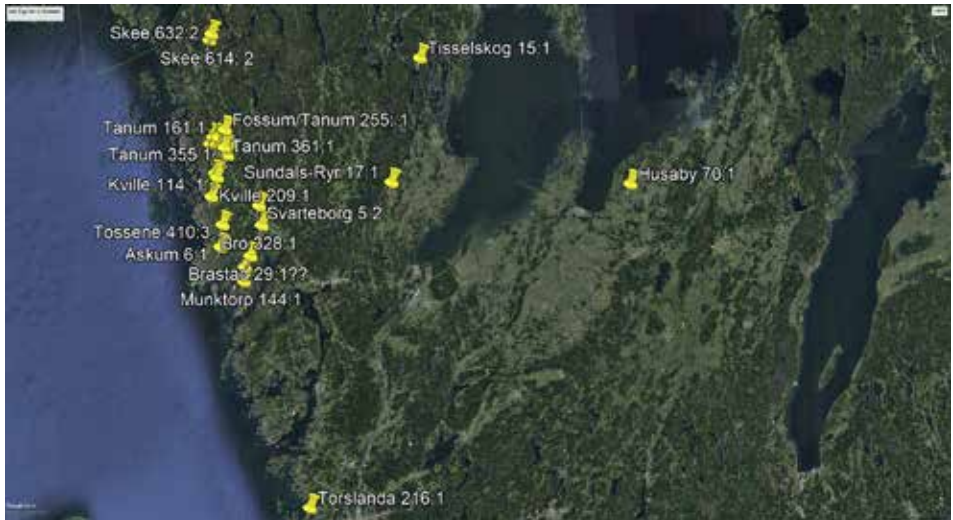
### Introduction

White-foamed waves violently crash into the rugged coast. Underneath the water darkness plunges to unknown depths. To those sailing its waters the sea is an expedient passageway providing fishermen with an abundance of sustenance. Yet, treacherous rocks in shallow water lure ships to crash and strong currents bring even the most competent swimmers down. Still today, we do not know exactly what lurks in the depths. As an entity the sea is drenched with danger, death and the unknown. This contrast implies that the sea had an important role in the cosmologies of prehistoric societies.

Decades of research suggests that worldview in the Nordic Bronze Age was

closely tied to the cyclical voyage of the sun through the cosmos. The sun did not only trail through the sky, it also dropped under into the sea. At the horizon the controllable world ended, and sky, earth and sea met (Kaul 2005, 2004). Bronze Age Scandinavian society relied heavily on a maritime mobility and this is unmistakably visible in rock art (Ling 2014; Milstreu 2018). With over 19,000 examples, ships are by far the most common motif on the smooth granite rocks of Southern Scandinavia and the carvings appear to have a communicative location near the ancient shoreline (Goldhahn and Ling 2013; Ling 2008). However, not only did the sea provide Bronze Age society with resources,

Figure 1: Sites with net-figures around Tanum (Google Earth).



it was also a dangerous place linked to death and the unknown (see Horn 2016). Likely, only a few people in Bronze Age Scandinavia had swimming abilities and thus ending up in the water was often fatal.<sup>1</sup> This idea of the sea as a dangerous and unpredictable place needs to be explored more in-depth in rock art research.<sup>2</sup>

In Bohuslän (southwestern Sweden), within some Bronze Age rock carvings, ships are accompanied by conspicuous figures with grid-like structures that resemble fishing nets. Little is known about their meaning or their connection to fishing and extensive research has yet to be undertaken. Remarkably, several net-figures are attached to ships or incorporate ships or human figures. Others have a rather anthropomorphic character with human body parts such as arms and heads. This leaves several questions. How are net-figures associated with other imagery? Are the net-figures linked with fishing activities as their form suggests, or do they have a different character? In this paper these questions will be addressed with emphasis on exploring whether net-figures can be connected to the dangerous nature of the sea.

Most net-figures are concentrated in the World Heritage Site of Tanum and adjacent localities (Fig. 1) where they are mainly located on granite rock outcrops near the ancient Bronze Age coastline (Goldhahn and Ling 2013; Ling 2014). The first section of this paper will discuss the areas where net-figures are most common, Bohuslän and specifically the area around Tanum. However, net-figures have been discovered in Västra Götaland, near the Bothnian Coast in Småland and in Jämtland. The second section will thus discuss the net-figures that are observed in other areas of Sweden in alphabetical order.

## 1. An overview of net-figures in Bohuslän

### 1.1. Sotetorp: Tanum 361:1

The panel at Sotetorp/Tanum 361:1 is located on a rather steep granite outcrop

and contains a particularly large and deeply carved net-figure.<sup>3</sup> Both the frottage and the 3D models show the image in full ornate. The panel displays a ship with a large net-figure above it consisting of multiple regular and irregularly shaped grids (Fig. 2 and Fig. 3). The net is



Figure 2: Above: 3D model of Tanum 361:1. created in ArcGIS (Christian Horn 2019).

Figure 3: Chalked painting of the net-figure at Tanum 361:1. Tanums Hällristningsmuseum Underslös



attached to the lowest ship on both sides. The lower left corner of the net displays a shape with multiple lines. To the upper right a ship is partially merged with the net-figure. Several lines on the left side of the net-figure indicate that additional ships were likely carved and/or merged with the net.

Sotetorp is located close to the panels of Tanum 355: 1 (several meters) and Tanum 330 (1-2 km) also displaying net-figures. In the Bronze Age these rock outcrops were situated directly on the shore of a large ancient bay.

### 1.2. Sotetorp: Tanum 355:1

A chalked painting (Fig. 4) of Tanum 355:1 displays a boat with a standing human figure on its bow holding a spear. Below the right corner a net-figure is attached to the boat. However, the carving could also be interpreted as two net-figures connected by an unfinished boat. Its attachment to the ship and the character of the grids suggests that the net-figure represents a fishing net.



Figure 4: Chalked painting of the net-figure at Tanum 355:1. Tanums Hällristningsmuseum Underslös

### 1.3. Tanum 33:1

A chalked painting of Tanum 33:1 (Fig. 5) displays four rather small net-figures. In the centre-left of the panel a net-figure is displayed consisting of four circular grids and on the top a line (net 1). A very schematic (possible) boat is displayed below it with a human figure. Surrounding it are several animals.

In the lower left corner of the panel another (possible) net-figure (net 2) is displayed below a ship. The figure is very weathered, the grids contain several cup-marks. Similar to its counterpart above, animals surround the image. To the left below it and on the edge of the frottage, another possible net-figure (net 3) is displayed with several small circular grids. It is not clear if the image is continued below it. Additionally, the panel displays



Figure 5: Chalked painting of Tanum 33:1 displaying several likely net-figures. Tanums Hällristningsmuseum Underslös.

a ship with a net-like internal structure in top right.

### 1.4. Tanum 63:1

At Tanum 63:1, a canoe is displayed containing a human figure with raised arms, below the ship an evenly distributed rectangular net-figure (Fig. 6) is placed. The laser scan and the rubbing both confirm this identification. The rectangular shape,

Figure 6: Chalked painting of Tanum 63:1. Tanums Hällristningsmuseum Underslös.



the evenly distributed grids and the scene indicate that perhaps the figure represents a fishing basket.

**1.5. Tanum 90:1**

A drawing of the panel at Finntorp (Fig. 7) shows an elaborate scene with several net-figures. One is at the centre (net 1), another below this figure (net 2), a third to the top left (net 3) and a fourth to the left (net 4). A frottage from 1970 (Fig. 8) displays the central irregularly gridded net-figure clearly (net 1), surrounded by cup-marks and human figures. Its lower section is rather rounded, and its upper section resembles an upside-down ship. Several ships, human figures or animals appear to be incorporated into the net-figure. Additionally, ships encircle the net-figure. Several cup marks inside the net-figure were likely engraved at an earlier stage.

Another frottage from 1970 displays a potential net-figure to the right of the central figure (Fig. 9). The net-figure consist of several grid shapes joined by lines. The figures has a boat-shape and is attached to at least two human figures in the middle section. Several ships and human figures are attached to each other by grids and lines.

Night photography from 1955 (Fig. 10) displays the net-figure on the lower part of the panel. The figure has several triangularly shaped grids which could resemble waves or turbulent water. Multiple rowed cup marks, a human figure and an animal figure merge with the net-figure. In addition to the net-figures the panel displays multiple human figures, animals, a spiral, two wheels and cup marks.

**1.6. Tanum 161: 1**

A drawing of Tanum 161:1 from 1889 (Fig. 11) displays yet another elaborate scene with multiple (4) net-figures. Unfortunately, no frottage is available. On the upper leftmost side of the panel a rather large net-like figure is displayed (net 1), similar to the net-figure at Tanum 361:1. The figure is irregularly shaped and incorporates multiple ships. Above it an unfin-



Figure 7: Drawing of Tanum 90:1 (Lauritz Baltzer 1889).



Figure 8: Frottage of Tanum 90:1 (Dietrich Evers 1970).



Figure 9: Frottage of Tanum 90:1 (Dietrich Evers 1970).

Figure 10: Night photography of Tanum 90:1 (Bertil Almgren 1955).



ished boat appears to be attached to the net-figure with several cup marks. On the middle panel a small net-figure (net 2) is visible comprising of a large grid surrounded by several smaller grids. On the left side the figure is attached to a carved line that runs through a depression and into an animal-figure. A frottage of the image confirms what can be seen in the drawing. The image is not associated with any ships.

The lowermost part of the panel shows an additional two irregularly or branch-like shaped net-figures (net 3 and 4). The rightmost net-figure has a rather anthropomorphic appearance and seems to be merged with a human figure. Both net-figures are surrounded by ships.

### 1.7. Tanum 208:1:

A frottage (Fig. 12) of a panel at Tanum 208:1 displays an irregularly shaped net-figure, resembling a fish. The individual grids contain cup marks and the figure displays multiple fin-like hooks on its left side. The figure is encircled by ships. The frottage shows an additional net-figure to the lower right. This net-figure has rather circular shaped grids and similarly displays cup marks inside the grids. Additional laser-scanning or photogrammetry of this image could reveal if ships or human figures are incorporated into the net-figure.

### 1.8. Tanum 255:1

At Tanum 255:1 (Fossum) a drawing shows a small net-figure, a slightly rectangular shape with several hooks on the side. Observing it upside down the figure has the appearance of a sled. To the right of the figure an animal-like figures, a circle, two warriors and two foot soles are displayed.

### 1.9. Tanum 330:1

A frottage of the carvings at Tanum 330:1 (Fig. 13) shows three net-figures merging into ships and human figures. The panel also displays several standing horned human figures with spears in their hands. The frottage displays a small rectangular net-figure rather badly visible due to weathering, to the left of these figures. In

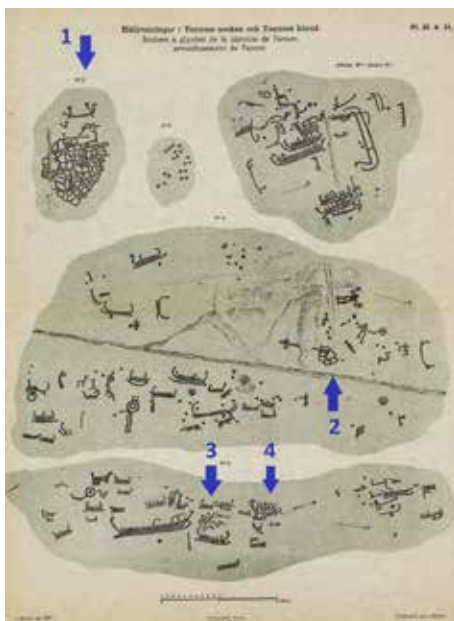


Figure 11: Drawing of Tanum 161:1 (Lauritz Baltzer 1889).

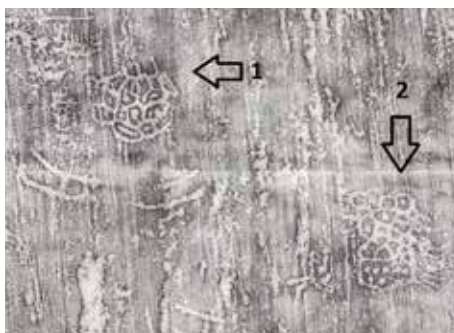


Figure 12: Frottage of Tanum 208:1 (Tanums Hällristningsmuseum Underslös, 2016).

the centre of the frottage a human figure merges with several neatly arranged cup marks beneath and attached to a sled-like ship. To the right a net-figure merging with a human figure is clearly visible with legs sticking out (net 2). Several meters below and tending to the right, a large irregularly shaped net-figure (net 3) is placed with several cup marks inside it. The figure is influenced by erosion and therefore not

clearly visible. On the left side the shape possibly incorporates a human figure.

The frottage displays an additional circular net-figure (net 1) possibly incorporating a ship in the upper left-corner of the panel. The figure is rather weathered, yet several grids and cup marks are still visible. Below it a ship is placed vertically.

**1.10. Tanum 365:1**

The most obviously anthropomorphic net-figure is found at Trättelanda (Fig. 14). A photograph of the painted carvings displays a large and regularly gridded net-figure in the middle of the panel. The net-figure appears to be equipped with body parts: two large hands and a carved-in head. At least eight ships are located in proximity of the figure. To the left of the net-figure are two human figures holding weapons. Directly beneath the net-figure and in between two ships a human figure stands with one arm held up. A boat to the right of the image has an undefinable shape attached to it with below another ship. The unidentifiable shape could be an additional net-figure. Below it a cephalopodan-like (octopus or squid) creature floats. Interestingly the net-figure appears to follow the natural cracks of the rock surface.

**1.11. Askum 6:1**

Chalked carvings at panel 6:1 in Askum display a small net-figure with rather circular grids (Fig. 15) above what appears to be an unfinished ship. Under the ship two wheels and two circles are observed. To the left of the net-figure are three more ships.

**1.12. Brastad 492:3**

Photographs from Brastad 492: 3 (Fig. 16) show a very regularly shaped net-figure above several ships. The figure resembles the net-figures at Skee 614:1 and Tanum 63:1. One of the ships has a rectangular shape on its side floating above it. This figure likely represents a fishing-basket or net. No frottage or photogrammetry exists of the image.

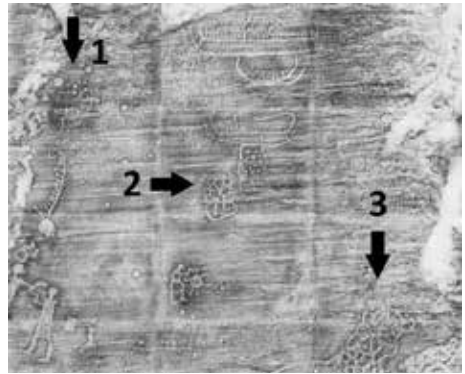


Figure 13: Frottage of Tanum 330:1 (Tanums Hällristningsmuseum Underslös, 2008).



Figure 14: Chalked painting of Tanum 365 (Gerhard Milstreu 2006).

Figure 15: Small net-figure at Askum (Botark 1996).



### 1.13. Bro 328:1:

At Bro 328:1, chalked carvings display an apparently regularly structured net-figure surrounded by cup marks and two riders on horses (Fig. 17).

The net-figure is referred to as ship-like. However, as the photograph shows the carving is rather damaged.

### 1.14. Kville 114:1

Photographs (Fig. 18) of Kville 114:1 display a ship with a regularly gridded net-figure to its right (net 2). The figure contains multiple hooks to its sides. Above it a snake-like creature is attached to the ship. To the right of the net-figure a round shape with tentacles is placed that resembles either a jellyfish or a cephalopod-like creature. Numerous other figures surround the net-figure, albeit quite damaged. In the middle of the panel another net-figure (net 1) is observed, several ships seem to be attached or merged into the net-figure.

A drawing from 1951 reveals an additional two net-figures alternating with circle figures, wheels and snake-like figures of which some appear to have been merged into boats. The figures were likely adjusted, redone or superimposed over older or newer images. Unfortunately, no frottages exist of the panel. Photogrammetry could reveal the extent of the transformations and to what degree sea-creatures are depicted.

Figure 18: Photograph of Kville 114:1 (Åke Fredsjö 1954).



Figure 16: Carvings at Brastad 492:3 (Sven-Gunnar Broström 1993).



Figure 17: Bro 328:1 (Andreas Toreld / Tommy Andersson 2007).

### 1.15. Kville 132:2

A drawing and photograph from 1950 show a human net-figure at Kville 132:2. (Fig. 19) The figure comprises of six nets with two legs below and a head above. The drawing shows a ship-like shape to the right of the figure. The panel is not far removed from Kville 114. No frottage was available.

### 1.16. Kville 209:1

A photograph of Kville 209: 1 from 1940 (Fig. 20) displays a net-figure in between several ships. The net-figure is attached to the lowermost ships. The way the ships are arranged around the net suggest that it represents a fishing net. A drawing from 1980 shows several ships that are attached to each other. The panel

also contains several foot soles, at least ten ships, animals, cup marks and human figures.

**1.17. Munktorp 144:1**

Drawings of the Munktorp 144: 1 panel (Fig. 21) display a net-figure in the top left in between numerous cup marks and foot soles. The approximate six grids have cup marks inside them. No ships are pictured in proximity of the figure. The panel on the right displays a ladder shape in between cup marks.



Figure 19: Kville 132:2 (Fredsjö Åke 1950).

**1.18. Skee 614:1**

A photograph from 1975 of the painted carvings at Skee 614:1 shows a small regularly shaped net-figure (Fig. 22) located above a ship. Photographs from 1992 shows a different painted panel with a rectangular net-figure (Fig. 23) in between boats and animal figures. The figure is very regular in appearance, like a beehive and similar in appearance to the net-figure a Tanum 63:1. A frottage of the panel reveals that several figures are superimposed.

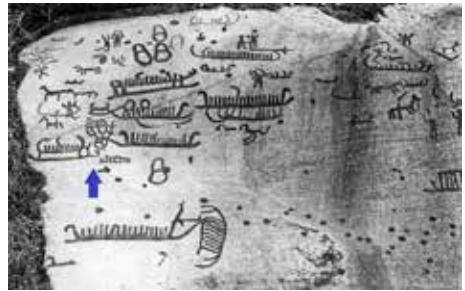


Figure 20: Kville 209:1 (Åke Fredsjö: 1940).

**1.19. Skee 632:1**

Photographs of the panel at Jörlov Skee from 1992 (Fig. 24) show a chalked net-figure below a ship. The grids are irregularly shaped. To the right a spiral-shape is surrounded by several cup marks. The net-figure follows a crack in rock perfectly and crosses the spiral-shape through the middle. Certain shapes in the net-figure resemble boats. The scene is isolated from other scenes on the outcrop.

A potential net-figure hanging below a sled-like boat is found on another panel (Fig. 25). The figure only has two grids but is attached to the boat with lines and has a shape that resembles a wave. On the other hand, the lower part of the figure has a ship-like character. Upside-down the shape appears as an animal hanging below the ship. A human figure holding an object is placed next to the ship.

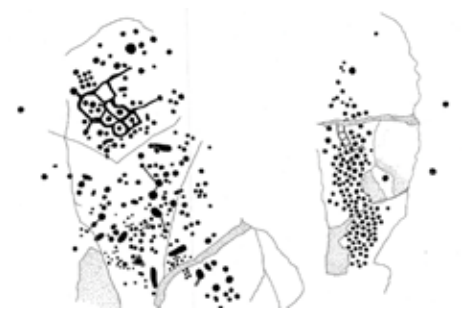


Figure 21: Munktorp 144:1. (Botark 2004)

Figure 22: Skee 614:1 (Torsten Högberg 1975).



### 1.20. Tossene 410:3

At Tossene an unfinished net-figure consists of two or perhaps three grids (Fig. 26). The carvings have been chalked. Numerous cup marks surround the figure and below it a schematic ship is placed.

## 2. Net-figures outside Bohuslän

Outside Bohuslän, the distribution of net-figures is widespread (Fig. 27) ranging from the Baltic coast to far inland and their character is rather diverse.

### 2.1. Evenstorp Sundals-Ryr 17:1

Located in Västra Götaland the panel at Sundals-Ryr is not associated with a body of water. Upside-down the net-figure could display an animal (Fig. 28). The figure is quite small, with lines that appear as legs. It only contains three grids. The shape is surrounded by human figures of which one is attached to the net-figure. Below it a ship is displayed.

### 2.2. Glösa Alsen

The site of Glösa Alsen (Alsen 13:1) lies furthest away from Bohuslän, up north in Jämtland near the shores of Alsensjön lake. A frottage shows a rectangular and regularly gridded net-figure resembling a fishing basket (Fig. 29). The net-figure is placed next to an elk. Nearby a red-painted carving also pictures a net-figure, somewhat smaller but also placed next to an animal (Fig. 30). No ships are displayed on the panel. The panel exclusively shows herds of elk. Remarkably, the animals are pictured with net-like structures inside their bodies, likely representing their organs (Evers 1970).

Another remarkable aspect is that a stream runs straight through the centre of the panel, thus linking the panel to water. In the context of animal herding, a common theme at the site, Evers (1970) assumes that the net-figures can represent huts or dwellings, enclosures or fishing gear. Thus, net structures can represent different things (e.g. organs, dwellings or fishing gear) based on the context in



Figure 23: Skee 614:1 (Lasse Bengtsson 1992).

Figure 24: The net-figure at Skee 632:1 seen from different perspectives (Sven-Gunnar Broström 1992).



Figure 25: Skee 632:1 (Lasse Bengtsson).



Figure 26: Tossene 410:3 (Sven-Gunnar Broström & Kenneth Ihrestam 1999).



which they are found as well as what other figures they are associated with.



Figure 27: distribution of net-figures in Sweden (Google Earth).



Figure 28: Sundals-Ryr 17:1 (Åsa Fredell 2008).



Figure 29: Alsen 13: 1 (Dietrich Evers 1970).

Figure 30: Alsen 13: 1 (Catarina Bertilson 2002).

### 2.3. Husaby 70:1

The panel at Husaby 71:1 is located on a Lower Cambrian sandstone outcrop and lies quite far land inwards near the shores of lake Vänern in Västra Götaland (Swantesson 2005). The panel is one of four examples of net-figures not associated with the sea. The panel contains two net-figures (Fig. 31 and 32). One is rather large with cup marks incorporated in the grids on the right side of the image (net 1). Below it several lines and circles run down to form a shape. Above it are multiple ships attached to another net-figure (net 2). One ship is completely incorporated by the net-figure.



Likely the net-figures were carved over the already present cup marks. Other cup marks are merged into wheel figures or spirals. The cup marks appear to be carved deeper than the net-figures or other imagery. Photogrammetry of the images could reveal more about to what extent the ships are incorporated in the net-figures.

#### 2.4. Tisselskog 15:1

Photographs of the carvings (Fig. 33) at Tisselskog near the shores of Lake Råvarpen in Västra Götaland reveal several net-figures in between ships. Most of the net-figures are rectangular, regularly shaped and rather small. The panels also display wheels, foot soles and large quantities of ships. Some nets are placed over or alongside foot-soles. In some cases it is difficult to distinguish between foot soles, ships and net-figures. The ships also have shapes placed over them.

Photographs of another panel show several other net-figures in between wheels as well as branch-like figures, lines and outlines of hands. Here again, figures are superimposed.

#### 2.5. Torslanda 216:1

As the southernmost painted rock art site of Sweden, Tumlhed/Torslanda 216:1 near Göteborg in Västra Götaland does not display pecked carvings but red pigmented paintings, an uncommon sight in Sweden. A drawing of the panel shows multiple ships, fish, waves and a deer. A net-figure appears to be both integrated in the deer's antlers as well as in the above it placed ship. Pictures of the paintings show the net-figure in far less detail (Fig. 34). However, after the image is processed in DStretch, a colour enhancement software, the net-figure becomes clearly visible (Fig. 35).

Recent research with DStretch by Schulz-Paulsson et al (2019) unveiled several previously unknown motifs on the panel. Comparative research additionally narrowed the age of the paintings down to the Mesolithic, ca. 4200-2500 BC. The deer on the other hand appears to be a

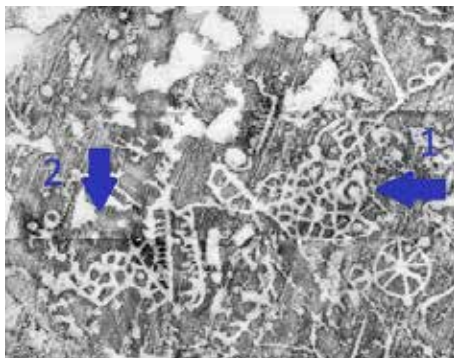


Figure 31: The net-figures at Husaby 70:1 (Toreld Andersson 2004).

Figure 32: The net-figures at Husaby 70:1 (Peter Jankovs 1994).



Figure 33: Several net-figures at the panel of Tisselskog 15:1 (Ulf Bertilsson 2011).

later addition, since it is superimposed on previously unknown zigzag lines. This illustrates that software techniques nowadays can reveal what once was invisible.

### 3. Net-figures as fishing nets

In their grid-like structure net-figures resemble fishing nets. However, does this resemblance indicate an actual relation to fishing activities? A clear dichotomy exists between regularly shaped and irregularly shaped net-figures. The regularly shaped net-figures tend to be quite small, with neatly arranged grids that could represent either fishing nets or baskets. At Skee 614 two basket-like net-figures are displayed. The figure at Bro 328:1 also has the basket-shape, although it could also be interpreted as ship-like in appearance. Additionally, the figure at Svarteborg 5:2, resembles a fishing basket quite clearly.

Overall fishing-baskets across the world appear to have a universal appearance. For example, present-day lobster pots and octopus traps are often circular (Fig. 36). The net-figure at Tanum 355:1 appears to have a fishing net below it and a human figure on the boat could represent the fisher. At Brastad 492:3 and Tanum 63:1 regularly-shaped net-figures also resemble fishing baskets. The net-figure at Tanum 63:1 is placed directly under the boat and a human figure on the boat likely represents the fisherman. The multiple net-figures at Tisselskog 15:1 could also portray fishing-baskets. However, as the examples from Glösa Alsen illustrated net-figures could also represent the organs of animals or hut dwellings.

The most suitable parallels for fishing nets in rock art are situated in Scandinavia. At Alta in northern Norway rock art imagery clearly displays fishing activities. In one scene (Fig. 37) a boat carries a human figure holding a fishing trap above his head, ready to throw it in the water. A panel with several moose displays a possible fishing net however, the image is not associated with any ships (Fig. 38). The figure resembles net-figures from Bohuslän, especially the small schematic and regularly gridded net-figures at Skee 614: Tanum 63:1 and Brastad 492:3. On the other hand, the context of animal herding is similar to Glösa Alsen and indicates that the net-figure could represent an enclosure or hut dwelling.



Figure 34: True-colour image of panel at Tumblehed (Bertil Almgren 1982).

Figure 35: Image of Tumblehed panel processed in DStretch.





Figure 36: Lobster pot from Devon (Graham Cole – public domain).



Figure 37: A human figure at Alta casting a net-basket (Gerhard Milstreu 2004).



Figure 38: Net-figure at Alta (Ralph Frenken 2012).

#### 4. Analysis and internal comparison:

An overarching narrative is apparent at the panels with net-figures of Bohuslän and southern Sweden, one that is closely related to a maritime mobility. Of the 25 examples discussed, only four sites are not located near the ancient shores of the sea, however, three of these sites are located near the shores of lakes (Table 1). Solely Evenstorp Sundals-Ryr is not linked to any body of water. Four figures are not associ-

ated with ships: Tanum 255:1 is related to an animal figure, warrior figures and foot soles; Kville 132:2 concerns a human net-figure isolated from any imagery and Munktorp 144:1 displays a net-figure surrounded by cup marks. At Glösa Alsen the net-figure is associated with herds of animals. Another noteworthy aspect is that at least 11 sites display multiple net-figures on panels ranging from a mere two to at least five.

Keeping the relationship to maritime mobility in mind, 21 net-figures in Sweden are closely associated with ship imagery. In four examples (Tanum 33:1, Tanum 361:1, Tanum 355:1 and Kville 209:1) net-figures are attached to the ships. The net at Torslanda is either attached to or merging with the antlers of the deer and the ship. Six examples appear to merge with ships: Tanum 90:1; 161:1; 330:1; Kville 114; Husaby 70:1; Torslanda 216:1 and possibly Skee 632. Interestingly, other aspects of rock art, such as warriors and other human figures are known to merge with ships (see Horn 2018). However, it could simply be that the net-figures are superimposed over the earlier imagery of ships. Whether intentional or unintentional this incorporation gives the images a rather unsettling narrative of net-figures devouring whole ships. In other cases the net-figures are placed in proximity of the ships. In at least seven cases (Tisselskog 15:1, Brastad 492:3, Askum 6:1, Kville 204:1, Husaby 70:1, Tanum 365:1 and Tanum 90:1) multiple ships encircle a net-figure.

Several examples connect net-figures to a turbulent sea. The triangular shapes of the net-figure at Tanum 90:1 could be interpreted as upright waves or water bulging up. The positioning of the branch-like net figures in between ships at Tanum 161:1 and their swirling appearance, almost maelstrom-like, indicate that they could resemble turbulent waters, strong currents, foam or waves. Skee 632:1 displays a net-figure that on his left corner resembles a maelstrom, not particularly gridded but attached to the ships. At Kville 114:1 it appears that an actual sea scene is por-

Nr.	Site	Regular /irregular	Coastal	Ships	Humans	Cupmarks	Incor. ships	Multiple /individual	Small/large	Fishing net
1	Tanum 361:1	Irregular	X	X			X	Individual	Large	
2	Tanum 355:1	Irregular	X	X				Individual	Small	X
3	Tanum 33:1	Irregular	X	X				Multiple (4)	Small	
4	Tanum 63:1	Regular	X	X				Individual	Small	X
5	Tanum 90:1	Irregular	X	X			X	Multiple (4)	Small	
6	Tanum 161:1	Irregular	X	X			X	Multiple (4)	Both	
7	Tanum 208:1	Irregular	X	X				Multiple (2)	Large	
8	Tanum 255:1	Regular	X					Individual	Small	
9	Tanum 330:1	Irregular	X	X	X	X	X	Multiple (4)	both	
10	Tanum 365:1	Regular	X	X		X		Individual	Large	
11	Askum 6:1	Regular	X	X	X			Individual	Small	
12	Brastad 492:3	Regular	X	X				Individual	Small	X
13	Bro 328:1	Regular	X	X		X		Individual	Small	
14	Kville 114:1	Both	X	X		X	X	Multiple (5)	both	
15	Kville 132:2	Regular	X		X			Individual	Small	
16	Kville 209:1	Irregular	X	X			X	Individual	Large	X
17	Munktorp 144:1	Irregular	X			X		Individual	Large	
18	Skee 614:1	Regular	X	X				Multiple (2)	Small	X
19	Skee 632:1	Irregular	X	X				Multiple (2)	Large	
20	Tossene 410:3	Regular	X	X				Individual	Small	
21	Sundals-Ryr 17:1	Irregular	N	X	X			Individual	Small	
22	Alsen 13:1	Regular	X (lake)					Multiple (2)	small	X
23	Husaby 70:1	Irregular	X (lake)	X		X	X	Multiple (2)	Large	
24	Tisselskog 15:1	Regular	X (lake)	X			X	Multiple (3)	Small	X
25	Torslanda 216:1	Irregular	X	X				Individual	small	

Table 1: overview of net-figures in Sweden.

trayed, several strange sea creatures are displayed. In this view it seems likely that the granite rock surfaces themselves represented the sea itself.

The net-figures do not merely incorporate ships but also merge into human figures (Tanum 90:1, Tanum 161:1 and Tanum 330:1) providing the figures with a rather anthropomorphic character. At Tanum 330:1 an additional human figures is merged with cup marks. The image at Kville 132:2 concerns a net-human that is isolated from other imagery. In three cases the net-figures (Tanum 208:1, Tanum 365:1 and Husaby 70:1) themselves have an anthropomorphic appearance. An excellent example is the figure of Tanum 365:1 showing a round shape with hands and a head. The deer displayed at Torslanda 216:1 appears to have a net-figure merged into its antlers and above it the net-figure merges into a ship.

Similarly, cup marks merge into the net-figures (Munktorp 144:1, Husaby 70:1 & Tanum 208:1). At Husaby the cup marks make it seem as if the net-figure has eyes, giving it an anthropomorphic appearance.

The same could be said about the figure of Tanum 208:1, the cup marks inside the grids give the figure a fish-like appearance. Other panels may represent sea creatures, among others several cephalopods (Kville 114:1, Tanum 365:1). In these cases potentially older imagery could have been purposefully merged into the newer imagery. Perhaps it was not about creating an image but more about revealing what was thought to be already there. This aspect of morphism and transformation will be discussed later.

## 5. The ambivalent nature of the sea

In prehistoric Scandinavian cosmology, the ritual landscape appears to be divided into two halves: the land and the sea (Bradley 2006). On sea activities were hidden to people on land and thus those on sea entered a different realm. This transition can be connected to liminality, a transitional phase where not only individuals or groups transition from one stage to the other, but also places, objects and activities (Horn 2016; van Gennep 1960;

Turner 1969). Westerdahl (2005) connects the division between land and sea in pre-historic cosmology with liminal spaces, liminal agents and taboo. In this view the threshold (Latin: *limin*) between the land and the sea, the seaboard served as a transition. Liminal agents acted as mobile bridges between the oppositional worlds and could range from objects; animals and material to people or specific colours having to do with the land (Westerdahl 2005).

Liminal spaces and agents are inherently threatening to society, like warriors (c.f. van Gennep 1960; Turner 1969) since they are associated with death. The concept of death in human societies is threatening by itself, not because it is feared but because it stands in opposition to a functioning society (van Gennep 1960; Turner 1969). For these reasons the sea is tabooed and needs to be coded to make it safe. Likely Bronze Age societies loaded the sea with religious significance. Thus the sea should not be named in a normal way and was tabooed in speech. In contemporary societies of the North Sea the tabooed word is replaced by something oppositional, a *noa* word or a word of inverted meaning (Westerdahl 2005). For example, the word for an object or place referring to the sea would instead refer to the land and vice versa.

Not only the liminal agents but also pictures or words for the liminal agents may have acted as representations of the liminal zones. In the north, the seaboard was eminently the liminal area and it is thus here that we find pictorial expression in the form of rock carvings. The carvings themselves then acted as liminal agents because they were located on the sea-shore (Westerdahl 2005). The most potent liminal agent, appears to be the ship, most commonly depicted (Ling 2008).

Liminal agents could be interchangeable, especially when looking at transitional figures such as an elk to a boat in rock art. Analogies for boats might have been used as liminal agents, such as boat-like burial structures. The sea was connected to death, because it was a life-threatening realm, for example bad

weather, insufficient provisioning, and exhaustion may cause death without any chance of rescue. Ethnographical parallels from Van Gennep (1960) and Turner (1969) suggests that human groups cope with these threats through rituals. The shore was the liminal space in between the realms of the sea and the land. Liminal agents acted as boundary-crossers, shading the boundary between two realms. Strong magic or ritual could transfer (or break) tabooed things whether objects, animals or names from one world to the other. Thus bringing a net-figure to the seashore could have been a powerful border crosser (Westerdahl 2006). Having been taken out of its natural element likely gave the net-figure more potent power in the liminal zone.

In this context, the fishing net or basket can be interpreted as a liminal agent, especially when the changing meaning of these symbols is considered. The transition from a fishing net to a ship and perhaps people-eating entity implies significance. The antagonism in Scandinavian cosmology between land and sea (Bradley 2006) may illuminate the ambivalent relationship of the net-figures, the sea, and human society. As a fishing net the net-figure was a positive metaphor for sustenance and the life-giving nature of the sea helping to feed, and thus, sustain the community. However, this seems juxtaposed to its depiction as a net-figure that ensnares ships and people, potentially dragging them down in the sea and drowning them.

The sea-faring Bronze Age societies of Scandinavia travelled to faraway places, on dangerous journeys through treacherous waters (Ling 2014; Schulz-Paulsson 2019). When ships or people went missing on sea, speaking about these events could likely have been taboo (Horn 2016). That what could not be spoken about at home was thus depicted near the sea. Tragic events were commemorated on the rocks near the ancient shores, not as a *noa* word but as a depiction of nets sometimes merged with, and thus, entangling ships and humans. In this view net-figures could

have acted additionally as a memory-device. If a ship got lost at sea it was pecked and remembered as such. Over time however, the meaning might have changed to something more universal. In this way a net-figure functioned as an accumulation of memories about the sea.

The net-figure itself could have been a personification of the dangerous nature of the sea, like a sea monster to be feared. The infamous kraken, a giant cephalopod may have had its roots in Scandinavia. Supposedly this giant squid was so powerful that it could pull down ships (Nigg 2013). Greek mythology also has its share of sea monsters with Scylla haunting the treacherous rocks near Kharybdis and swallowing Odysseus's men alive, as described in Homer's *Odyssey* (12. 54 ff & 12. 210 - 259:). It is likely that Bronze Age groups in Scandinavia employed a similar narrative as a way of warning people about the dangers of the water. The net-figures could thus embody waters with shallow rocks or dangerous currents where sea-faring men met their untimely deaths, as a place where one memorized the dead.

## 6. Future research

Questions about the net-figures relationship to other motifs remain, especially where they incorporate cup marks and human features. Photogrammetry of both the net-figures incorporating ships and human figures (such as Tanum 330:1) could reveal whether certain images were re-engaged over time. Either way, human figures, animals and ships were placed over or merged with net-figures and this merging likely gave the image extra meaning. The transformation and the merging of categories appears to be an overarching theme in Scandinavian Bronze Age rock art (Horn 2018b). Attributes of warriors are morphed into other imagery, phalluses and swords are combined, objects are given body parts and certain motifs such as ships, swords and animals are morphed into each other (Horn 2018a; 2018b). Additionally throughout Scandinavia rock

art boats are equipped with horns, horse heads and elk heads on their bows, human figures transform to elk and other human to animal transformations are displayed starting as early as the Mesolithic (Ling and Rowlands 2013; Schultz-Paulsson et al 2019). Morphism is closely tied to re-engagement of the rock art by later generations. The undergoing of metamorphosis is also a common trait in animistic cultures and part of the belief that every animate and inanimate object has an essence or soul (Ling and Rowlands 2013). It seems clear that this aspect of morphism in Scandinavian rock art should be explored more thoroughly.

Important passages or features in the maritime landscape often served as hot-spots not only for ritual deposition of weaponry but also for rock art sites (Horn 2018b). More in depth observation of the location of the rock art panels near the water could reveal whether the narrative of the panels was closely related to dangerous activities taking place in the maritime landscape. Thus, the narrative could be connected to warnings of shallow waters, particularly deep waters or strong currents all of which are connected to the dangerous nature of the sea. With the exception of Husaby 70: 1 located near the shore of lake Vanern, Tisselskog 15:1 near Lake Råvarpen and Glösa Alsen near Lake Alsensjön lake, all examples of net-figures are found near to the seashore. However, lakes could have been equally dangerous for fishermen, especially in turbulent weather. Persons could still drown in the lake if they were unable to swim. The panels at the lake sites do not appear to have a different character in subject.

A next step is to compare the net-figures from other areas. The net-figures in Bohuslän appear to be carved in similar ways. Although there is an overarching 'sea' theme, variations exist in the way net-figures are displayed: from regular to irregular from rectangular to circular and from boat-like to human-like. Can we observe similar trends in other areas of Scandinavia?

New documentations using laser scanning or Structure from Motion (SfM) would provide a fuller picture perhaps revealing further information on the character, chronology and meaning of the net-figures. Were certain aspects of the images added at later times? Were the images adjusted, erased or transformed into palimpsests? According to Sapwell (2017) palimpsests are collections of images that index past visitors and art makers; thus functioning as a way of bringing past actions into the future (cf. Horn and Potter 2017). Therefore, rock art had a communalising effect. In this view, the net-figures could represent past events that were connected to the sea, a boat shipwrecking on the rocks nearby, a sailor falling off the boat and drowning, a ship that never returned. The representation of an image is never static, but changes through continuous interpretation and interaction (Lele 2006). Likely, these memory and knowledge practices transformed over time, their meaning ever-changing. Specific events might have been forgotten, but the overall dangerous nature of the sea was not. Thus, carvings of net-figures were created in a liminal space to ritualize, encode and perhaps dispose of the threat of a tabooed event, such as a sea expedition or the loss of a sailor. Over time these images might have been incorporated as symbols that stood for an overarching theme, the dangerous sea.

If net-figures were closely connected to the dangerous nature of the sea, they were similarly related to death. To many ancient cultures the sea was seen as the underworld or served as a gateway to the underworld. In Greek mythology the sea was a two-way passage between death, as a gateway to Hades' underworld and as a primordial water, representing eternal life and rebirth (Dietrich 1973). In Norse mythology the sea giantess Rán was the personification of the sea and used a fishing net to trap lost sailors (Faulkes 1998). As mentioned, the sea as a liminal entity was most threatening to human groups and thus closely associated with death. The close location of rock carvings to burials

supports this link between sea and death which existed during the Bronze Age (see Goldhahn and Ling 2013), for example, at Skee 632:1 which has a net-figure and is closely located to the Massleberg passages grave and burial mounds.

## Conclusion

Net-figures are connected to ships and the sea, an entity utterly rooted in Nordic Bronze Age society. Some of the figures represent fishing nets or baskets while others perhaps served as a warning for a society dependent on the waters that surrounded them. Bronze Age cosmology was closely linked to the opposition between land and sea and this contradiction was reflected in rock art. The sea was a transitional or liminal zone par excellence where the two oppositional worlds met. Perhaps net-figures acted as mobile bridges between these worlds. As a fishing net, the net-figure was a positive metaphor for the ever-providing sea and as an entity gobbling up ships it was a negative metaphor of the dangerous sea. Initially net-figures could have been carved as warnings or memorials for a treacherous place nearby, an event where family members or friends lost their lives. Over time the image might have transformed into a scene with a more universal meaning, that of the dangerous and deadly nature of the sea.

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## Notes

<sup>1</sup>Not much is known about the swimming abilities of our ancestors. Neolithic carv-

ings at the Cave of the Swimmers in Egypt possibly depict swimmers (Huyge 2003). Tacitus mentions that the Batavi tribe in the Low Lands were keen swimmers (Tacitus 1931). In Medieval times on the other hand swimming was believed to be linked to the plague (Orme 1983). Nonetheless, it is very likely that the skill of swimming in the Bronze Age was rare. For example, the Red Cross indicates that at present time more than half of the US population cannot swim (Red Cross 2014).

<sup>2</sup>This has been done with a focus on maritime warriors, see Ling and Cornell 2017.

<sup>3</sup>The idea for this paper came along after producing a 3D photogrammetry model of the net-figure at Sotetorp. The 3D model was produced in Agisoft Photoscan Professional and imported to MeshLab where it was further processed. Subsequently the image was imported into ArcGIS where an additional image was produced (See Horn et al. 2019).

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