

Recent finds of

Neolithic miniature rock art

on the island of Bornholm – including topographic motifs

Introduction

It would appear that present-day Denmark, and adjacent parts of South Scandinavia, contain the highest density of megalithic tombs, dolmens and passage graves, built between 3500 and 3100 BC. Denmark has around 2700 surviving dolmens and passage graves. This figure is estimated to be a tenth of the original number, and, in some areas, may be a conservative estimate (Andersen 2011). Approximately 7000 megalithic tombs have been recorded (Ebbesen 1985; Fritsch et.al. 2010; Nielsen 2013). By comparison, just over 1450 are registered in Ireland (Twohig 1990).

Considering this huge megalithic activity, one could perhaps expect megalithic art in South Scandinavia, since so many of the other areas of Western Europe that are rich in megalithic tombs exhibit decoration on the kerb stones, and within the chambers. But this is not the case; decorations on megalithic tombs are virtually absent, though it should be noted that when rock art is present, it should be seen as a reflection of secondary activities belonging to the Bronze Age (Glob 1969). However, it cannot be excluded that a small number of cup-marks on the stones of the megalithic tombs were pecked at an earlier time, in connection with both the early use of the tombs and as well as within the Funnel Beaker Culture (Bengtsson 2004; for a recent discussion see Horn 2015).

One could argue that the motifs of megalithic art are in fact present, albeit on another medium, pottery, which is associ-

ated with megalithic tombs in a quality and a quantity unsurpassed elsewhere in Europe (Kaul 1997b). The richly decorated pottery is not only found within the chambers, but also at the façade on each side of the opening of the passage of the passage graves, at the same places where true megalithic art is often concentrated within other parts of Europe, for instance within Ireland (O’Kelly 1982; Eogan 1986; Roberts 2015). Some of the similarities in motifs (pottery and megalithic art), such as zigzags and lozenges, might reflect a broader common iconological background (even though also many differences can be observed).

In the autumn of 1995, a breakthrough took place. At Rispebjerg, on Bornholm, in Denmark, at the excavations of a large palisaded enclosure (for a recent discussion of these, see Noble and Brophy 2011), a number of small flat stones decorated with circular motifs were uncovered, within layers belonging to the final phases of the Funnel Beaker Culture, around 2900 BC. In the following years, several of these decorated stones turned up at Rispebjerg. As a consequence of the establishment of a dedicated excavation strategy developed during the last three years at Vasagård, a contemporary site just 8.5 km west of Rispebjerg, the number of these stones recovered to date has now excelled to more than 200 stones, including fragments. Hence, it could be contended that a kind of megalithic art has suddenly emerged, evidencing Neolithic rock carvings in Denmark. However, these

pieces of rock art are not incorporated within megalithic tombs, but belong to other categories of finds: refuse layers, depositions related to ritual structures and enclosed places of assembly. They can certainly not be designated as megalithic art in a narrow sense, rather as 'minilithic art'.

The excavations have principally been carried out during collaborations between Bornholms Museum and the National Museum of Denmark. Within recent years, several universities, including Aarhus, Copenhagen and Warsaw, have joined this partnership.

'Minilithic art', before 1995

Even though the finds of decorated stones from Rispebjerg, Bornholm, appeared, at the time, during the mid-1990's, to be something of a revelation, as well as quite new and unexpected, a number of small, decorated stones associated with the Funnel Beaker Culture had already turned up (Kaul 1993; 1997a; 1997b).

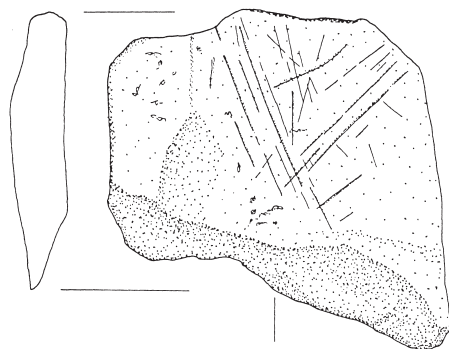
In the 1980's and early 1990's, the Swedish archaeologists Lars Larsson and Göran Burenhult published, what were at that time, a small number of recently discovered stone slabs carrying deliberately made decoration, found within cultural layers from the Funnel Beaker Culture (Burenhult 1981; Larsson 1985; Larsson 1992). The finest specimen comes from Hindby Mosse, Western Scania, southernmost Sweden, from a settlement layer belonging to the Early / Middle Neolithic transition (c. 3200 BC) (Burenhult 1981; Burenhult 1982). On a small, square flag, measuring 8 x 5 cm, four finely incised rows of zigzags connected by almost parallel lines covering part of the zigzags can be seen (Fig. 1).

From a settlement layer, also dated to the Early/Middle Neolithic transition, at Östra Vemmenhög, Eastern Scania, southernmost Sweden, come two thin sandstone flags (Larsson 1985; Larsson 1992). One, measuring 7.5 x 7.3 cm, is covered with finely incised parallel lines, seemingly forming a deliberate chevron-like pattern (Fig. 2). The other sandstone flag, measuring 7.5 x 6.0 cm, is decorated with finely incised,



Fig. 1. Finely decorated stone flag from Hindby Mosse, Scania, South Sweden, measuring c. 8 x 5 cm. After Burenhult 1981.

Fig. 2. Sandstone flag decorated with line ornaments forming chevron-like patterns, Östra Vemmenhög, Scania, South Sweden, measuring 7.5 x 7.3 cm. Drawing: Eva Koch, after Kaul 1993.



narrow, sharp lines that form well-defined, clear, parallel and angular bands (Fig. 3). Probably, the stone was shaped deliberately. Its right 'shoulder' is formed by a coarse cut, whereas the left 'shoulder' seems to show

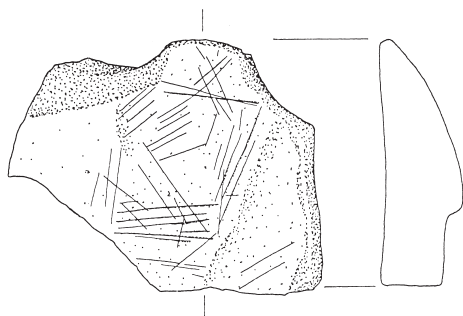


Fig. 3. Finely decorated sandstone flag, perhaps an anthropomorphic figure, Östra Vemmenhög, Scania, South Sweden, measuring 7.5 x 7.3 cm. Drawing: Eva Koch, after Kaul 1993.

traces of grinding. Since the shape of the stone may have been worked deliberately, it should not be excluded that we are facing an anthropomorphic figure, or idol. The fine lines could be a stylized rendering of arms and, perhaps, details of clothing (Kaul 1993; Kaul 1997b). The shape itself, rounded 'shoulders' with only a slightly marked head/neck, is widely distributed within the Western European megalithic art tradition, in a variety of sizes. For instance, in moderate size, four anthropomorphic statue menhirs from the Parxubeira megalithic tomb, in Galicia, Northwest Spain (Rodríguez Casal 1990), or, in gigantic size, the huge Breton statue menhirs (Lecornec 1994). On the miniature scale, some of the finely decorated Iberian schist idols exhibit a similar shape, whereby the head/neck are only slightly marked.

More small, thin, engraved stones were found at Rävgrav, in western Scania, within southernmost Sweden (Larsson 1985; Larsson 1992; Kaul 1993), once again, from a settlement layer belonging to the Early / Middle Neolithic transition (c. 3200 BC).

In 1991, excavation and restauration works were carried out at one of the largest Danish passage tombs, Kong Svends Høj, on the South Danish Island of Lolland. In the stone and clay packing, deep down within in the mound, a flat sandstone slab was taken to the museum lab in order to determine the rock type (Kaul 1993; Dehn et al. 1995; Kaul 1997b). When washed, finely incised grooves appeared on the slab. Even though the decoration may look somehow

haphazard, the parallel lines and their angular pattern should, without doubt, be considered as deliberately executed (Fig. 4).

This stone slab is of the same material and appearance as the hundreds of sand stone slabs of the dry-stone walling of the megalith tomb. It remains unclear why this stone did not become part of the dry-stone walling, but instead ended up in the mound

Fig. 4. A decorated sandstone slab found in the mound material of the passage tomb Kong Svends Høj, Lolland, Denmark. Measurements: 10.6 x 7.5 x 2.1 cm. Photo: Kit Weiss, the National Museum of Denmark, after Dehn et al. 1995.

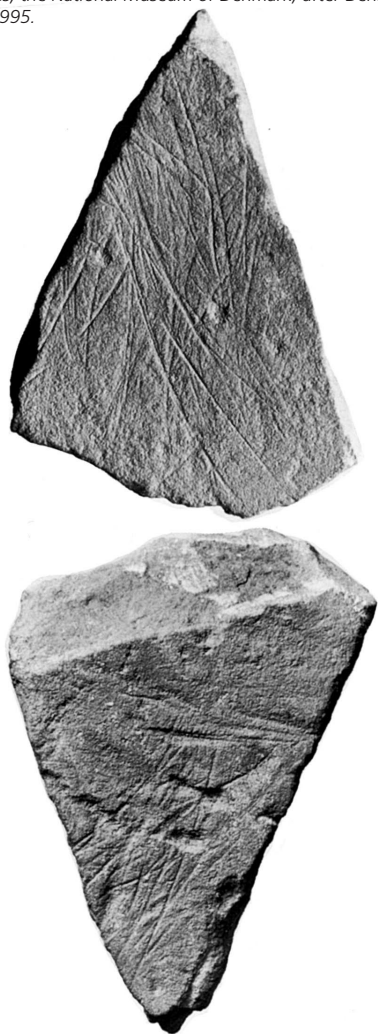




Fig 5. A slab with a delicate linear decoration, Runegård, Bornholm, Denmark, measuring 4.2 x 3.5 cm. Photo: Kit Weiss, the National Museum of Denmark, after Kaul et al. 2002.

material behind the dry-stone walling and the huge orthostats. Perhaps, similar decorated slabs remain hidden in the dry-stone walling of the chamber and the façade of Kong Svends Høj, as well as other megalithic tombs. At any rate, the context of the decorated slab, as part of the building material of a large Danish passage tomb, can

secure a date to the Early/Middle Neolithic transition, c. 3200 BC.

Even prior to 1995, a flat decorated stone was found Bornholm in 1979, yet, details of this artefact were only published for the first time in 2002 (Kaul et al. 2002). It was found during excavations at an early Middle Neolithic settlement at Runegård, dated to circa 3200-3000 BC. But the date is somewhat uncertain, since the context may contain some inclusions from subsequent Middle Neolithic activity. The stone, measuring 4.2 x 3.5 cm, is decorated with parallel lines, filled out with slanting parallel lines in alternating directions (Fig. 5). This pattern may have been transferred from pottery decoration.

Two decorated stones, originating from the Funnel Beaker Culture, were known, noted and published long before the 1980's. During excavations of the Lindø settlement, onward from 1901, on Langeland, South Denmark, two such stones with incised decoration were uncovered, and were attributed to a late phase of the Middle Neolithic Funnel Beaker Culture. One stone is decorated with a pattern of parallel grooves, while another stone, a sandstone slab, is covered by a dense criss-cross pattern (Fig. 6). The excavator of the Lindø settlement, Jens Winther, writes that the grooves form a rectangular figure, and that

Fig. 6. A sand stone slab from a cultural layer, Lindø, Langeland, Denmark, decorated with rectangular patterns, measuring c. 10 x 10 cm. After Winther 1926.



the possibility should not be excluded that the same hand that was involved in the decoration of the pottery vessels may also have made some attempts on the hard sand stone (Winther 1926: 37-38). However, the pattern on the stone from Lindø, does not bear much resemblance with pottery decoration, and the closest comparable pattern of decoration is probably found amongst the most recently discovered stones with incised decoration found at Vasagård. The pottery from Lindø belongs to a late phase of the Funnel Beaker Culture (MN III-V), and since it is mentioned that it was found in a distinct, upper culture layer, it is likely that they should be assigned to period MN V, that is to say, around 2900 BC.

Apart from the Iberian schist idols, which form a distinctive grouping of Neolithic art, a number of decorated stones, bearing resemblance to the South Scandinavian specimens, have turned up in Britain. From the ditches of the eponymous causewayed enclosure, Windmill Hill, Wiltshire, in Southern England, seventeen flattish pieces bear series of scored lines on one or both faces. Some of those pieces are of chalk, which splits naturally into suitable thin slabs. Most of them are irregular and show little evidence of shaping, but a few have been carved to oval, discoidal or roughly rectangular form. The scorings vary from light incisions to deep grooves. The design consists mostly of groups of straight intersecting lines (Piggott 1954: 87-88; Smith 1965: 134). The most elaborate piece, measuring c. 6 x 6 cm, comes from the primary level of the causewayed enclosure ditches (c. 3300-3200 BC), and it carries a design of intersecting curving and straight lines (Fig. 7).

Other Neolithic, small, flattish stones, with angular and chevron-like patterns, from Graig Wlyd, in Wales, and from Ronaldsway, on the Isle of Man, could be included on a list of 'minilithic' art (Piggott 1954: 294 & 349-50; Thomas 2016: 22-23). In addition, there are a number of Neolithic engravings, or 'graffiti', on the chalk walls, blocks and 'plaques' of English Neolithic flint mines. Mention should also be made

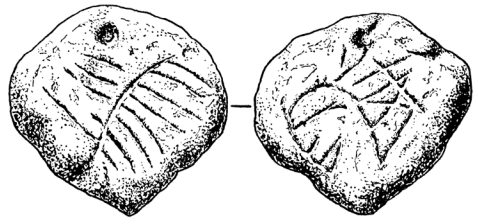


Fig. 7. A chalk slab measuring c. 6.2 x 5.4 cm, with a combination of straight lines and curvilinear elements, from the primary level of the ditches of the Windmill Hill causewayed enclosure, Wiltshire England. After Piggott 1954.

of man-made ornamentation on the chalk sides of one English causewayed enclosure, although the size of the area covered by these pictograms is a bit larger. Engraved chalk blocks have also been found in the flint mines of North Jutland (Woodward 1988; Teather 2011; Teather & Sørensen 2016: 55).

Also well-known prior to 1995, are the relatively small decorated stones from two of the stone built houses and passages within the Skara Brae settlement, Orkney Scotland (c. 2900-2500 BC). The incised motifs are mostly based on chevrons, triangles and zigzags. The stones have been observed built into the standing walls, as well as loose within the midden (Childe 1931: 150; Ritchie 1995: 67-71; Thomas 2016: 41). Many stones were found during excavations conducted during the late 1920's. Systematic sieving of samples taken during excavations during the 1970's led to the recovery of many more small fragments of incised stones (Thomas 2016: 92).

Since 2003, a number of stone built houses have been excavated at the spectacular site Ness of Brodgar, Orkney (dated to circa 3000-2500 BC). All the buildings appear to have a particular social and ritual significance, which is heightened by the proximity to the nearby henge monuments of The Stones of Stenness and The Ring of Brodgar. More than 600 decorated stones or flag-stones have now been recovered from the site. Over 200 examples have been found *in situ* within the walls of the buildings, whilst many more come from stratigraphically secured Neolithic layers. Some of the decorated stones would have been



Fig. 8a & 8b. View of the incised decoration on two faces of ornamented slate disc (approx. 15cm in diameter) from the causewayed enclosure Woodcock Corner in Cornwall. After Taylor 2013. Copyright: Cornwall Archaeological Unit.



visible within the walls of the houses, while others were hidden as part of the wall material. Some stones may be considered portable pieces of art (Thomas 2016). The size of the decorated 'panels', or the stones themselves, varies, but many of the decorated pieces measure around 10-15 cm, thus being within the limits of the South Scandinavian 'minilithic' decorated stones. Generally, the motifs, that is to say those with chevron-like patterns (which in turn reference pottery on Orkney as well as true megalithic art), when clearest, differ from the 'Danish tradition'. Some of the more loosely engraved angular patterns might be compared with similar loosely engraved pieces like the one from Kong Svends Høj, Denmark (see above). At the excavations at Ness of Brodgar, there were difficulties in identifying the fine, often barely visible markings, and many stones were recovered from the spoil heaps. Some larger stones carrying decoration were found in a 'secondary position' weighing down the plastic covering the trench between excavation seasons. In 2011-2012 the large number of decorated stones were found on the spoil heap was due almost entirely to the keen eyes of Christopher Gee, who was actively checking discarded stones for decoration" (Thomas 2016: 146). In Denmark, we face similar problems.

From Woodcock Corner near Truro, Cornwall, a circular slate disc, with double-sided incised decoration was discovered in a pit situated within a causewayed enclosure (Taylor 2013). The excavator suggests a date

for the enclosure between the Middle and Late Neolithic. The slate disc measures approx. 15 cm in diameter (Fig. 8a and 8b). One side displays a cross-hatched chess-board pattern while the other side features cross-hatched lozenges. The find-context of the disc is associated with grooved ware from the later Neolithic, probably from the first half of the Third Millennium BC. It has recently been discussed if this particular type of pottery had communal functions within Neolithic society (Thomas 2010).

Such stones, of the same size, and with somewhat similar decoration, referred to here as chalk plaques, were found in a pit on King Barrow Ridge, East of Stonehenge, Wiltshire, in 1967. Antler picks from the same pit have yielded a C-14 date of 2900-2580 BC. Fragments of similar plaques have been found at the large ceremonial henge of Durrington Walls, which is forms part of the wider monumental landscape of the Stonehenge area. The designs on the chalk plaques are similar to designs on grooved ware pottery. "*Such stones must have had some special value which we can only guess at.*" (Parker Pearson 2012:227).

Even though the number of pieces of 'minilithic' art in Britain have increased dramatically during the last two decades, the outlines of such a find category were already present before 1995. As we have seen above, this is also the case within Denmark. In both cases, the presence of the earlier material makes it possible to circumscribe a

find category of Neolithic miniature stone art, related to the Funnel Beaker Culture and other western Neolithic cultures. In 1993, the state of affairs was recapitulated, and it was proposed that the reason why this find group comprised a limited number of specimens was because the shallow incisions were difficult to recognize on an archaeological excavation – unless each tiny little stone was carefully washed and examined – a task requiring patience and young, sharp eyes from the excavators. Larger numbers of minute slabs carrying such delicate decoration would most likely have passed unnoticed onto the spoil heap. (Kaul 1993: 19). Thus, this prepares us to expect that if, sufficient attention is given to what appear to be, at first glance, insignificant pieces of stone, then more pieces of ‘mini-lithic’ art will come to light.

Rispebjerg, 1995

In 1995, these expectations were met during excavations of settlement layers at Rispebjerg, Bornholm, related to the large palisaded enclosures from the Late Funnel Beaker Culture, dated to circa 2900-2700 BC (Kaul 1993; 1997a; 1997b). The first decorated stones were found in 1995, when amateur archaeologists were participating in the work (Nielsen & Thorsen 2010). With their help, there was time to wash, brush and examine the small stones from the cultural layers. Five stones came to light in 1995, and were the first of more finds. Cumulatively, these have added new and astonishing perspectives concerning an iconography of the Late Funnel Beaker Culture.

In total, more than 20 decorated stones are currently known from Rispebjerg (Kaul 1997a; 1997b; 2005; Kaul et al. 2002; Nielsen 2000; 2013; Nielsen et al. 2014b). The finest piece of ‘minilithic’ art found in 1995 was a piece of sand stone, only 3.6 cm in diameter, shaped into an almost perfect circle through careful grinding of its edges. The surface is covered with concentric circles and short radial lines to form a surface that alternates between hatched and smooth areas (Fig. 9).



Fig. 9. Sandstone with circle ornamentation from Rispebjerg, Bornholm. Diameter: 3.6 cm. Photo: John Lee, the National Museum of Denmark.

Most of the remaining stones from Rispebjerg, are, in general, deliberately shaped, small shale discs that are decorated with a central circle and a halo. The halo consists of either single lines or lines of strokes radiating from the central circle, or, the halo consists of a more complicated pattern made of circular sectors (Fig. 10). One version has a border of arcs around the edge. It should be noted that almost exact parallels to this particular decoration occur on clay discs from the clay-discs associated to the “Vasagård-style” (Kaul et al. 2002; Nielsen et al. 2014a).

The motifs on these circular stones have been interpreted as solar representations, iconographic renderings of the sun surrounded by a halo; the radiating strokes transmit its appearance as the luminously shining sun (Kaul 1997b). Thus, this group of stones have been named “sun-stones”. and Bornholm has been called “The Sun-Stone Island” (Danish: “Solstensøen”) because of their uniqueness to the area (Nielsen et al. 2014b).

Other stones, of elongated or rectangular shape, are decorated with linear patterns, including ‘ladder patterns’. Here, a solar interpretation is not immediately apparent (Fig. 11). As we shall see below, the

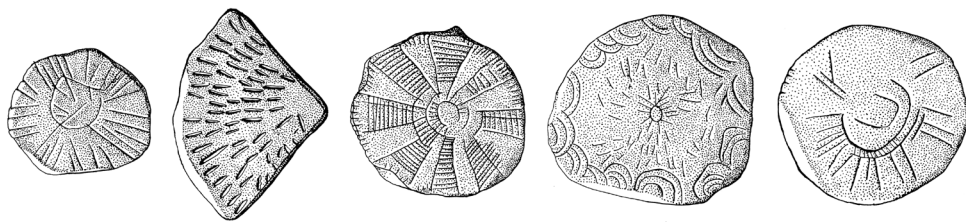


Fig. 10. Small round pieces of shale with ornaments or figures representing the sun. Maximum diameter: 6.7cm. Rispebjerg, Bornholm. Drawing: Bjørn Skaarup, the National Museum of Denmark.

rectangular or sub-rectangular stones carrying rectangular decoration, most recently found at Vasagård, should be interpreted along other lines, though probably combined with the solar interpretations of the circular stones.

Vasagård

The Vasagård site is divided into two areas (termed "East" and "West") separated by the narrow valley gorge of the Læså Stream, running NW-SE, which, at the intersection of the two areas, widens to a low-lying meadow. A small tributary running from the NE, perpendicular to the gorge, defines the position of a natural crossing, which also is reflected in its place-name, "Vasa", which means ford in the local dialect (Finn Ole Nielsen, pers.comm.). The location of Vasagård thus fits the correlation between communicative crossings and Neolithic communal sites as proposed by Klassen (2014).

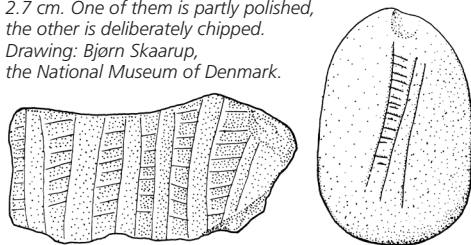
The western part of Vasagård is, on its eastern boundary, delimited by a steep cliff, over 10 m high. It cannot be a coincidence that this topographical situation is paralleled at Rispebjerg. Furthermore, at both sites, the underlying bedrock is made of

shale and these two are the only places on Bornholm with this peculiar combination of geology and topography. The ideal raw material for creating objects with incised decoration is close to hand at these two specific locations, which in turn, may again explain their abundance.

The character of and relationship between the western and eastern parts of Vasagård is still the subject of investigation. Small scale, targeted, excavations have been carried out since 1988, although not every year (Kaul et al. 2002; Nielsen et al. 2014a). Based on these investigations, it seems as if the similarities between West and East Vasagård dominate, but there are also differences: on the western side a dolmen and a nearby passage grave are located (Hansen 2014), but, on the eastern side, no traces of megalithic tombs have been found so far. Here, on the other hand, burnt axes and chisels made of flint are found frequently, whereas these are rare on the western side (Finn Ole Nielsen, pers. comm.).

Both the western and eastern localities of Vasagård include a causewayed enclosure from a late phase of the Early Neolithic Funnel Beaker Culture (3500-3300 BC), surrounded by two, larger, complex palisaded enclosures from a late phase of the Middle Neolithic Funnel Beaker culture (2900-2800 BC). The causewayed enclosures in both the western and the eastern areas seem to be contemporary, although detailed analysis still is in progress. The structures are documented on aerial photos, geomagnetic mapping, and have been confirmed by trial trenches and targeted excavations. In the eastern area, the ditches enclose about 1.5 ha, whereas the western area encloses

Fig. 11. Two small shale slabs from Rispebjerg, Bornholm, carrying ladder patterns, measuring 4.8 x 3.2 cm and 5.9 x 2.7 cm. One of them is partly polished, the other is deliberately chipped. Drawing: Bjørn Skaarup, the National Museum of Denmark.



about 1/3 of that area. Both enclosures are semi-circular double-ditched systems.

More than 200 decorated stones have been recovered in the investigations between 2013 and 2016. One of the reasons for the growth in find material is a consequence of the finds processing in the field becoming ever more optimized, since even water-sieving turned out as insufficient for the recovery of the decorated objects. Discoveries *in situ* are very rare, so excavating in stratigraphic layers (not in spits) and context recording of all removed soil (with inclusions) is pertinent. In order to maximize the recognition of decorated stones, soil removed has to be cleaned at least twice and spread on a table. Several times, it was noted that the decoration is most clearly visible for a few seconds between being wet and dry, in combination with altering the viewing angle in relation to bright sunlight. In the following section, we shall focus on a number of decorated stones, found from 2014 to 2016, and, in particular, the stones of non-circular shape.

However, before we proceed to the next section, a small prelude to the recent Vasagård discoveries should be mentioned. During excavations of a culture layer in 1993, from a late phase of the Funnel

Beaker Culture at Vasagård East, a soil sample was taken for extraction of organic macrofossil material. The flotation of the organic remains, carried out in 1995, yielded no results, but a decorated piece of shale was recovered. On the piece, measuring just 1.6 x 1.1 cm, are seen three parallel lines, marked by transverse strokes (Kaul 1997b; Kaul et al. 2002). Obviously, we are dealing with a fragment (Fig. 12).

Vasagård Vest: parts of the campaigns 2014-2016 and a selection of finds

At the end of 2013, the University of Aarhus received the offer from The National Museum of Denmark and Bornholms Museum to participate in the ongoing archaeological investigations of the causewayed enclosure at Vasagård Vest. The general appearance of the overall plan of the enclosure was at that time based upon geomagnetic surveys and trial trenching. Subsequent investigations, from 2014 onwards, have only altered the details of this general layout at Vasagård Vest.

The causewayed enclosure at Vasagård Vest is comprised of two rows of long, so-called "system-ditches", interrupted by "bridges". The two rows run in parallel, forming two concentric arcs with an internal distance of approximately 20m. The northern end of the complex ends where the steep cliff to the Læsåen is at its highest – around 10 m from top to bottom. The southern end is believed to finish near the ford over the stream. The modern farm buildings of Vasagård are partly located in the centre of this enclosure. For this reason, it has not been possible to investigate the innermost area of approx. 0,65ha.

The part of the campaigns of 2014 and 2015 reported here were situated in the northernmost sector of the outer arc, nearby the megalithic tombs. The main object of the excavation: system-ditch XI.1 is illustrated prior to excavation in Nielsen et al. 2014 p. 83 (top). Its location is marked on p. 90, area XI. In 2016, two terminations of the system-ditches of the inner semi-circle in area XI were excavated. In the same cam-

Fig. 12. A piece of finely ornamented shale, Vasagård East, Bornholm, length: 1.6 cm. Photo: F. Kaul, the National Museum of Denmark.



paign, the unexcavated remainder of inner semi-circle ditches in trench / area XIV, from the Copenhagen University campaigns of 2014 and 2015, was completed.

Back in 2014, it was decided to cut system-ditch XI.1 lengthwise (Nielsen et.al. 2015, fig. 4 and fig. 5). Not in one, but in several stages, producing a number of half transverse sections, as well in the process. During the following year, these transverse sections were continued during excavation of the other half of XI.1, which now is totally emptied of its middle Neolithic contents.

In order to determine if the ditch-system continued to the steep cliff, a trench was opened in 2015, around 2m from the edge. This trench is located on a narrow strip on the eastern side of a small stone wall, which delimits a farm track on one side, and protects trespassers from the dangers of the cliff, on the other. Due to pure luck, the narrow trench hit the end of the ditch-system exactly. In addition, Bornholms Museum's assumption that the area never had been ploughed was confirmed. The Neolithic sediments in and, more importantly, above the system-ditch appear to have been affected by natural processes only, although, admittedly, there are some minor disturbances from the late Iron Age.

The investigations in 2014 and 2015 proved beyond doubt that the system-ditches of the causewayed enclosure had been worked into the shale during not one, but a series of events (Fig. 13). XI.1 was constructed using a minimum of three operations. Torsten Madsen's earlier observations of repeated processes forming what appears to be the result of one are thus now confirmed on Bornholm (Madsen 2009). However, that said, it is difficult to determine the time-span between events and for how long the ditches stood open. This question is better addressed by the analysis of the fill of the ditches, and this work is, as mentioned previously, not yet finished. Complicating the issue is that the filling of the ditches differs from case to case. In some places there are clear signs of re-cuts and subsequent fill, on other places re-cuts are hard to see.



Fig. 13a. System-ditch XI.1 seen from the NE under excavation June 2015. The ditch is cut into the bedrock and its bottom follows a natural horizon of the shale. In the far western end a part of the fill with its stratigraphy is still visible, while in the western end an irregular niche cuts the ditch. Photo: Jens Andresen, Aarhus University.

What seems to be general, although, is that the fill can be divided into two main strata. The stratigraphically lowest is an yellow to olive clay from the underlying natural, occasionally mixed with shale chips. In this layer we find few, but relatively large pieces of freshly broken pottery, a few animal bones, but very rarely flints. The dating is the beginning of the middle Neolithic, contemporary with the erection and use of the nearby megalithic tombs.

On top of this layer we find a horizon of large stones, which associates to some sort of field clearance. This stratum extends beyond the limits of the ditches, but is concentrated here, as if the stones have been thrown and landed a bit randomly in or outside the half-way filled ditches. Mixed between the stones - and covering them -



Fig. 13b. System ditch XI.1 seen from the SW under excavation June 2015. The irregular niche is seen in front. Some of its bottom layer is still un-excavated. In the background one can see the narrow continuation of XI.1 and its fill. The black layer on top of the olive stone-filled clay is clearly visible and limited to the ditch. Photo: Jens Andresen, Aarhus University.

are variations of a black culture layer. It is at a specific vertical position of this upper matrix, where we find the decorated stones in the system-ditches. They are associated with small fragments of burnt bone, flint debris and tools, and a quantity of pottery sherds. The sherds are usually smaller than at the bottom layer but opposite them, they seem worn, which may indicate re-deposition. The dateable material from the upper black layer matrix is a bit ambiguous, as if it represents a mixture of old and new – new in this case is MN V.

Whereas the trench at the edge of the cliff (Fig. 14) made it clear that the black layer has been deliberately deposited in the system-ditches, it is still a matter of investigation where this “black layer” originates, both spatially and chronologically. If we use the decorated stones as chronological indicators of a common event, then they have to be associated with the erection of the outer timber palisade. In that case, the dec-

orated stones are deposited in the system-ditches at this event – either through their inclusion as part of the deposited material, or as a fresh element in this.

But let us finally focus on the decorated stones. An extra-ordinary example of an iconic “sun-stone” was found in trench XIV, in 2016, in the black layer of a system-ditch. It (VAS#3770) measures 4 cm in diameter and is made of a few millimetre thick piece of shale, chipped on the obverse “solar” side with its rim subsequently polished. On the reverse “moon” side, it carries a single, sketchy circular decoration, while the obverse carries four concentric circles. From the outer one of these, twelve decorated and seven blank sectors radiate towards the periphery. They are stopped from reaching the rim by a zone of sixteen semi-circles, some of them arranged adjacently, some with a blank area in between. The semi-circles seem to be arranged partly indepen-



Fig. 14. The end of system-ditch XI.1 in the trench at the edge of the cliff. The black layer is visible around 80 cm above the bottom of the ditch. Photo: Mathias Bjørnevad Jensen, Aarhus University.

dently in relation to the radiating pattern (Fig. 15).

Whilst VAS#3770 is complete, VAS#682 is a fragment, probably part of a centre piece (Fig. 16). It was found in the sieve, but the

context is nevertheless secured. It is found in the "black layer" of system-ditch XI.1. The piece measures around 3 x 4 cm, and is made of shale. The decoration is one-sided and does not stop at the edges. It is

Fig. 15a and b. Obverse and reverse of VAS#3770: circular shale disc found in the upper black layer of the causewayed enclosure of Vasagård Vest. Photo: Rogvi N. Johansen, Foto/Medie Moesgaard.





Fig. 16. VAS#682: Shale piece measuring c. 3 x 4 cm, carrying a rectangular pattern, Vasagård Vest. Photo: Bornholms Museum.

most likely that the remaining pieces have been overlooked. It features a rectangular area in its centre, which has, on its longest side, short, haphazardly executed, perpendicular gentle strokes, whilst, on its short side, these marks continue in three loosely

Fig. 17. VAS#3479: Shale piece measuring c. 3 x 3 cm, carrying rows of strokes and a plant-like figure, Vasagård Vest. Photo: Bornholms Museum.



arranged registers. The interior of the rectangle is filled with three irregular registers of short, deep strokes, which, in one or two cases, disrespect the rectangle. Outside of the central motive are, on both the left and right sides, two loosely arranged radiating lines. At the top, a coarse representation of a ladder-motive ends the decoration. A number of slanting scratches continue from the ladder to the outer edge.

During the 2016 excavation campaign, many other decorated stones were unearthed from the black layer of the ditches of the causewayed enclosure, including VAS#3479. This fragment of shale, measuring c. 3 x 3 cm, with some dressing at its edges, is decorated with registers of hatched lines. The hatched lines are angled, and the division line between the two circular sectors forms a concentric, curvilinear structure at the perimeter of the object, forming a "plant". Notable is also, that there are two strokes on the bottom right side of "plant", which interfere with the hatched line pattern. (Fig. 17).

A similar plant-like pattern is dominating the almost square slab of slightly reddish slate, VAS#1567, also showing traces of polishing as well as burning (Fig. 18). It was uncovered during the 2014 excavation campaign and found in trench XIV. In this case, the decoration is more complex, and the parallel rows of strokes are not running

Fig. 18. VAS #1567. A reddish shale, c. 3 x 3 cm, carrying complex linear patterns and plant-like figures, Vasagård Vest. Photo: Bornholms Museum.



parallel with the plant-like patterns, but at a right angle.

VAS#2037 is unfortunately incomplete too, yet it is one of the most intriguing pieces found so far at Vasagård Vest (Fig. 19). Although it features stylistic elements that are identical to all the other decorated stones, the arrangement proposes associations with human figures from the Mesolithic. It features a bundle of four parallel, irregular bands. These are alternately infilled or left blank. Following the orientation of the illustration (Fig. 19), the rightmost stripe is infilled with deep, vertical incisions arranged in eight slightly overlapping registers. At the upper end, the incisions are deep, in the lower, shallower. At this end, the infilled decoration extends over into the neighbouring stripe, which is otherwise blank. The third stripe from the right is filled with irregularly spaced horizontal lines. The stripe on the left is only partly filled with vertical incisions arranged in three or four registers.

One end of the bundle stops where the stone is incomplete. The other is open. What is confusing, are three lines forming a nearly closed triangle, which has either

Fig. 20. VAS#2029: Complex and restrained linear decoration on a yellow-grey piece of sandstone, c. 10 x 10 cm, Vasagård Vest. Photo: Bornholms Museum.



5 cm

Fig. 19. VAS#2037: Complex linear decoration on a piece of unworked shale, c. 8 x 10 cm, Vasagård Vest. Photo: Bornholms Museum.

been placed either before or after the bundle. Above this triangle, two roundish objects ("heads" or "eyes") are placed. The media is a large piece (around 8 x 10 cm) of unworked shale, which in the process of excavation unfortunately broke into three pieces. Its context is secure, again, from within the dark layer of system-ditch XI.1.

In radical opposition to the dissolved composition of VAS#2037, the piece VAS#2029 is very accurately and neatly produced (Fig. 20). The stylistic elements are parallel bands alternately filled with dashed lines arranged in registers and solid lines arranged in a "ladder" pattern. The reverse side of the object is left undecorated. The find is a fragment (measuring around 10 cm x 10 cm) of a larger object, and only the upper left edge (of the illustration, Figure 20) defines a natural border. The object itself is made of light, yellow-grey sandstone of unknown origin and its function is a mystery.



Fig. 21a & b. VAS#2300: Kidney-shaped pebble with faint incisions, c. 2 x 4 cm, Vasagård Vest.
Photo: Bornholms Museum.

The piece was discovered in situ within the small trench near the cliff, once again, in the upper fill of the system-ditch.

VAS#2300 is a 2 x 4 cm kidney-shaped pebble of a somewhat harder stone material than the previous. The decorations are visible on two sides, where the faint scratches on one side are criss-crossed like a bundle of mikado-sticks, while the decorations on the other are a bit more complex. Around its periphery short, radial lines ("eye-lid" pattern) are visible, whereas its center is occupied with a peculiar arrangement of filled bands.(Fig. 21a & b).

A particularly interesting decorated stone is item VAS#3730 from Vasagård Vest (Fig. 22; Fig 23). The stone itself is an approx. 5mm thick flat piece of polygonal shale, measuring 3 x 5 cm only. The refitted stone's edges are rounded and, unfortunately, a triangular 1 x 1 x 1.5 cm piece of its central part is missing. This part could not be located during the field work, even after a repeated and very intensive search.

It is hard to tell with certainty whether the stone was destroyed in the past or in the archaeological excavation, since the remaining two remaining pieces were only found after systematic water sieving of the removed soil and were, unfortunately (but typically), not found *in situ*. However, the position and context of the find is securely known.

While excavating this particular stratum in this particular section of a pit within the enclosure, special care was taken. The sec-

tion had previously produced a quantity of decorated stones that were found by the Copenhagen University team in 2015. On this basis, the Aarhus University team replaced the sieve from the usually used 6 mm, to 4 mm.

Even in its incomplete state, one can say that the engravings on VAS#3730 are unusual, even in the perspective of an ever widening spectrum of decoration, media and expressions of Neolithic art on Bornholm. The constituents of each decorative element on the stone, is rather simple, and, as such, falls perfectly into the repertoire of what has been noticed already at Vasagård. But, in contrast to the "sun-stones", the composition seems randomly executed, or made with little or no overall plan.

At a closer look, several interesting features appear: the engravings are multi-layered - and thus represent different carving phases. Even more interestingly, they have been produced by different tools, and entered on the surface with varying force and attitude. Some marks are deep, determined and linear, whereas others are shallow, delicate and curvy. It is as if not one but *two or more* persons have been engaged in the making of VAS# 3730. It is as if we are witnessing a conversation expressed in graphics!

For obvious reasons, a co-operative engagement on this tiny stone can never be proven with certainty. It may of course be possible that one person shifted pressure and tool. But why did this person partially



Fig. 22. VAS#3730: The most complex and intriguing decoration of the stones featuring minilithic art from Bornholm, slate, c. 3 x 5 cm, Vasagård Vest. Photo: Rogvi N. Johansen, Foto/Medie Moesgaard.

over-write what was previously marked? Why did this person not polish the stone and hereby erase the previous engravings? On other decorated and un-decorated stones from Vasagård, we notice polishing from time to time. But in this case an un-interrupted sequence of decoration is maintained. The interpretation of a multi-person engagement fits perfectly within the overall interpretation of the Neolithic enclosures being communal sites. Thus, not only the site, but also the decorated stones, are a material expression and manifestation of megalithism as communal actions, albeit here expressed in a "minilithic" way.

Decorative elements and their media

The assembly presented above is selected as illustrative and representative amongst a much larger group of finds. One of the

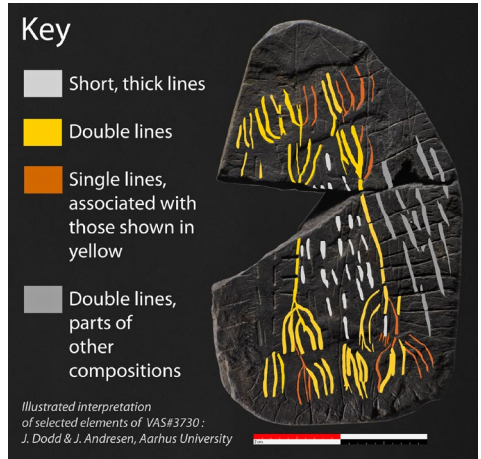


Fig. 23. VAS#3730 – interpretation: It is possible to detect different 'layers' of incisions on VAS#3730, Vasagård Vest. An illustration of selected elements from two motive groups arranged in respect to each other, but executed with different tools, is shown and may be interpreted as "grain" (yellow and orange) and "rain" (light and darker grey). Interpretation: J. Andresen and J. Dodd, Aarhus University.

specimens is a typical "Solsten", but the others are so divergent in terms of shape and decoration that it is problematic to put them into one and the same category. But despite the variety, a closer analysis reveals that the number of constituent decorative elements is shared and very limited.

There are three simple elements: straight lines, arcs, and circles. These may be repeated, i.e. arranged concentric or radially. Then there are bands – defined by two parallel and solid lines. These appear in just three variants: a) left blank b) filled with registers of hatched lines c) filled with unbroken, perpendicular lines forming "ladders". A fifth element is a bundle of crisscrossing lines, which appears solely and forms an exception. A final sixth element is a "plant", where the "flower" of the "plant" has similarity to (groups of) arcs. But in opposition to arcs, the "flower" of the "plants" is never depicted as concentric arcs and is placed independently of radiating lines, whereas on "plants", there is an unbroken line attached to the "flower". "Plants" appear in a simple version with "flowers" in one end – often placed at the

periphery of the object – as well as in a “mirrored” version with “flowers” at both ends.

On the background of the limited set of decorative elements, the decorated stones share a common repertoire. But it is striking that the combination (composition) of constituent decorative elements seems to be unique for every single tiny stone. It is even amongst the most uniform group – the circular “sun-stones” - hard to find two specimens with an identical combination and arrangement of decorative elements (Nielsen et.al. 2014a: 102). However, and this is very interesting, despite the individuality in their appearance, a common general syntax seems to exist amongst the “sun-stones”; arcs and radial lines are located on the periphery of the object, but never in combination; there is never a cup or hole drilled in the center; but, moreover, one or more concentric circles may be located around an imaginary center. Around this center, the three types of bands listed above form either radiating segments, in seemingly unpredictable neighborhoods, or exist as concentric versions.

On the non-circular stones, the composition appears to be irregular and not governed by a general syntax. Some stones have been shaped by nature. Typically, these carry crisscrosses, but may also display “ladders” and/or radial lines, as it was demonstrated on VAS#2300. Some stones are irregularly shaped: such as VAS#2037, which looks like a piece of debris. Likewise, the decoration is also irregular, but again, with only the very limited repertoire. Finally, we find shaped media, such as VAS#3730 and VAS#2029, which are a challenge for the analyst.

It is not only the composition, which is different on the various media; there is also a strong correlation between shape and composition. Furthermore, it seems as if shape takes precedence, which may not come as a surprise, since this has been known for a long time for TRB pottery. For instance, the “sun” decoration is only found on (almost) circular stones (such as the de-

liberately shaped circular VAS#3770) but never on non-circular shapes.

But the distinctions do not stop here. There is also variation in the execution of the decoration. On irregularly shaped pieces, the decoration is executed sloppily, whereas on well-prepared (dressed and polished) media, the decoration tends to be minute and exquisite. The best example is VAS#2029, which, unfortunately, consists of only one fragment of the entire work. Its strict and very regular bands lend associations with the finest pottery decoration. On the other hand, shaped pieces, such as the polygonal VAS#3730, have their own and unique compositions.

One might argue that the media dictates the range of decorative elements, but this is not the case. We do not find spirals or U-shaped concentric arcs as on the megaliths in other areas. There are no zigzags, triangles, chevrons, or checker-boards, as we find elsewhere - on other stones and on pottery. The closest parallel to the limited set of decorative elements can be found on another item of flat media: the clay-discs (Nielsen et. al. 2014b: 117 Fig 10), although, admittedly, the bands with hatched lines in registers have not yet been observed on these objects so far. Even the “flower” element may be found on the pottery of the “Grødby”-style (Nielsen & Nielsen 2014: 127 Fig. 6).

In sum, the repertoire of decorative elements is very limited, and is geometric and non-figurative in their design. It seems as if the iconography imposed a sort of taboo against the display of figurative art, or perhaps a wide-ranging taboo against the drawing of living things. This is quite in contrast to the contemporary Pitted Ware Culture and Comb Ceramic culture, where figurative art has been known for more than a century (Cederhvarf 1912; Wyszomirska 1984). One exception might be the “plant” element, but if the “plant” can be considered a proxy for tilled fields, then it is conceivable that these represent the tilled landscape, not the grown crop per se. This may, in turn, explain their non-naturalistic display.

Interpretation of the rectangular pattern

Even though it may seem difficult to present a convincing or comprehensive interpretation of these thin pieces of stone from Vasagård covered with linear and rectangular patterns, it should be permissible to go beyond description of these patterns. Whereas the circular motifs with radiating patterns on the circular stones from Vasagård and Rispebjerg were readily understood as solar representations (Kaul 1997b; Nielsen et al. 2014b), it seems harder to shed light on the meaning of the linear patterns on sub-rectangular, polygonal, kidney-shaped, or irregular media. However, it is apparent that we are not facing a sort of decorative art without meaning. These patterns, both circular and rectangular, cannot be considered as purely decorative, since they are hardly visible. It is quite clear, even when considering the small size that the lines and designs have been executed in a most deliberate, delicate and thorough manner, and that some motifs and motif combinations are occurring repeatedly.

Additionally, the ritual context has to be underlined. Stones with polygonal design are deposited together with the circular stones in the ditches of a causewayed enclosure, although within later re-cuttings of the ditches. In some cases, the stones have been deliberately broken, most likely in connection with rituals of deposition.

In particular, the case of VAS#3730 has made it possible to propose the interpretation of these stones as either being symbolic renderings of field systems, or representing a sort idealized topography of the (sacred) landscape. We shall not here attempt to make a full detailed 'reading' of the motifs, but highlight some of the possibilities. The rectangular designs may represent fields or field systems, some rectangles being pastures for grazing, other rectangles representing fields with crops. Alternatively, the differently marked or infilled rectangles could represent different stages in the annual cycle: ploughing, growing, harvesting. Some of the lines, or networks of lines, could represent fences or cattle tracks.

The central rectangular motif on stone VAS#3730 is filled out with a system of parallel strokes, many of them terminating (up-permost?) in a minute bend. Was this bend meant to signify each plant of the crops in a delimited field, the slightly bending end of the lines representing the waving spikes? At each end of this possible rectangular field, some 'flower-like' motifs are noticeable. Is it possible that these 'flower-like' motifs are more precise or larger scale renderings of single plants as those sketched in the field itself? – If this is the case, then the long protruding lines to be observed here could represent the ears or stacks of the spikes (*arista*), typical of barley and einkorn wheat. The motifs on stone VAS#1567 and VAS#3479 from Vasagård could be interpreted along the same lines, with one or more barley or einkorn fields represented: the detailed plants with their stylized though noticeable spikes (in a sort of foreground or dominating position?) denoting these common crops of the Neolithic.

Topographic elements: renderings of Neolithic field systems in Valcamonica, the Italian Alps

The proposed interpretation of the rectangular motifs on the small slabs from Vasagård representing field systems is – of course – a subject of discussion. However, when considering the archaeological context of the decorated stones themselves, we can not speak of decoration merely for decorative purposes. The faint incisions were seemingly not created for serving as visible decoration on everyday used objects. Probably, it was more the ritual process of making the patterns that was of importance, than a subsequent ritual use of the stones, followed by the deposition of those stones in the ditches at a place of sanctity. Even though the patterns may look 'geometrical' and 'decorative' (without any meaning), there must be a meaning, or ideas, behind these intentional expressions in stone.

When we suggest that the rectangular motifs on the slabs from Vasagård could be representations of fields and field sys-

tems, such propositions are not merely built upon our imagination. In the rock art of Neolithic Europe, especially in the North Italian Alpine region, there are many well documented examples of rectangular motifs, from the very same period of time as the Vasagård carvings, as well as a couple of centuries prior to Vasagård, which has been interpreted as various kinds of maps, or symbolic renderings of field systems.

When described, such motifs are determined as linear or rectangular patterns; but, in a cautiously interpretive way, those motifs are often referred to as *"figurazione topografiche"*, *"elemente topografiche"* and *"figura topografico semplice"*, or more

interpretative as *"incisioni mappiformi"* (Sansoni & Gavaldo 1995; Sansoni et al. 1999; Gavaldo & Sansoni 2009). In English, we can find words like *"geometrical compositions usually interpreted as topographic maps"*, *"topographical representations"* and *"topographic engravings"* (Arca 1999; Mareta 2011a; Mareta 2014; Fossati 2015). Already in the first half of the 20th Century, a topographical interpretation was suggested for some of the Mont Bego and Valcamonica engravings. (Arca 1999). Within the Valcamonica the motifs have been expressed in terms such as: *"incisioni che sembrano rappresentare campi coltivati"* (Battaglia 1934: 44).

Fig. 24. Topographic compositions made of rectangular elements. One of the rectangles is populated with rows of cup marks. Piè, Capo di Ponte, Valcamonica, North Italy. Photo: A. Marretta, after Marretta 2011a.



Geographical distribution

Even though the core area for these topographic elements is Valcamonica, within the Italian Alps (Pr. Brescia, Lombardia), the distribution of such motifs is much wider. In other Alpine valleys, like Valtellina, north of Valcamonica, we find these rectangular motifs, as well as within Liguria, the Maritime Alps of southern France (Mont Bego), in Haute Marianne, between Torino and Grenoble, and at Sion, in Switzerland (Priuli & Pucci 1994; Arca 1999; Sansoni et al. 1999; de Lumley 2003; Arca 2009; Bianchi 2010; Marretta 2011b).

Description

What characterizes these topographical engravings is their rectangular shape, even though one or more sides of the rectangles can be curved, although roundish and oval figures are also included in this category of rock carvings. The rectangular motifs, standing alone or as part of a larger composition, are often provided with a double line at one of the sides. In some cases, the different elements are linked by sinuous lines (Fig. 24). The rectangles, or ovals, are often dotted with rows of small cup marks, or parallel rows of small linear motifs. Furthermore, the rectangles can be filled out with grid-like or ladder-like patterns. A particular version of the rectangular patterns should be noted, whereby the rectangles are formed by a completely, finely pecked surface, distinctly delimitating these intensively worked areas from the smooth rock (Fig. 25). Examples of these totally pecked figures can be found in Pià d'Ort, Campanine and Vite, at Capo di Ponte, Valcamonica, from Caven at Teglio, and Dosso Giraldo at Grossio, both in Valtellina, and from Mont Bego, southern France (Sansoni & Gavaldo 1995; Arca 1999; Gavaldo 2009; Marretta 2011a).

Interpretations

Thus, it is possible to distinguish between different types of these, mostly rectangular, rock carvings. Some of the rectangles are open, some are infilled with grid-like pat-



Fig. 25. Topographic elements, fields, some of which are marked by totally pecked areas. Pià, Capo di Ponte, Valcamonica, North Italy. After Gavaldo 2001.

terns, some are fully pecked, while others are populated with rows of cup marks or short linear motifs. The gridded or infilled rectangular areas, may represent ploughed, sown or harvested cultivated fields. The presence, in Valtellina, of certain elongated fully pecked rectangular areas is in accordance with the particular shape of the fields still present today in the area. Anyone who, from a distance, observes a newly ploughed field in an Alpine valley, will observe the geometric, rectangular brown shape which distinguishes the tilled field from the green colour of the surrounding grass (Arca 1999: 77). The texture of the totally pecked areas may epitomize the coarse texture of a newly ploughed field seen against the smooth unworked rock surface embodying the smoother texture of a grass field.

The figures of aligned dots / cup-marks could, similarly, be related to fields, in the form of activities related to crop harvesting. Each cup-mark could represent a stack of sheaves, aligned in the harvested field, where the final ripeness and drying of the barley and wheat grains were achieved before threshing (Arca 1999: 77-78). Alternatively, the cup marks could represent hay stacks of grass, drying for subsequent storage for winter fodder. It should be noted that, even in recent times, the harvesting and threshing sequence within the North Italian alpine valleys are accompanied by ritual practices. When considering some of these topographical rock carvings of the Alpine area, they could *per se* represent ritual actions related to harvesting, or, in more general terms, important moments in the annual cycle. The ritual practices of today include offerings of wheat to God at the end of the threshing (Arca 1999: 78). The linear motifs inside the rectangles could be the ripening crops in the field. The roundish / circular perimetric lines could represent stone walls. In more general terms, the depictions of these plots of land on the rock surfaces should be associated with concepts of a landscape transformed by human activities; the modified landscape being sacred and the focus of rituals.

Chronology

In the long chronological sequence of the Alpine rock carvings, it is possible to assign topographic elements to an early phase of rock carving activity, within the Italian Late Neolithic / Early Copper Age transition, circa 3000-2900 BC, although the beginning of this period can perhaps be extended further back in time, to around 3500 BC (Arca 1999; Gavaldo 2001; 2009; Arca 2009; Fedele 2011; Gavaldo & Sansoni 2009; Gavaldo & Sansoni 2012; Marretta 2014; Fossati 2015). Study of superimposed rock carvings, together with analysis of specific repeated compositions of motifs, make it possible, on a relatively broad chronological level, to work with, and discuss, chronological issues. By studying overlapping motifs, an 'iconostratigraphy' (in Italian: *Iconostratigrafia*) can

be corroborated, and, by considering the meaning of the motifs, a sort of 'ideological stratigraphy' can even be considered (Fedele 2011:80).

Recent studies of superimposition at Mont Bego, France, have similarly contributed toward an understanding of a chronological sequence, and the beginning for the geometrical topographic compositions has been pushed back in time to around 3500 BC, or even earlier (Bianchi 2010: 73).

One of the most important rock carvings demonstrating an 'iconostratigraphy' is on a boulder, Masso I, at Borno, in Valcamonica, where carvings of Remedello daggers superimpose a couple of totally pecked rectangular figures (interpreted as fields) (Brunod 1997; Gavaldo 2001; Fedele 2011; Fossati 2015). The Remedello-dagger is a 'type-fossil' for the Italian Copper Age, for the period between 2900-2400 BC, as it is the most popular rock carving motif in the Alpine region: seen on large rocks, boulders, menhirs and stelae. With its characteristic triangular blade, it is easy to recognize and typify amongst the rock carvings, and a 'remedellian horizon' has been categorized. Consequently, the earliest rock carvings with topographic elements should belong to the 'remedellian horizon', or to a certain period prior to this horizon. Amongst the topographic rock carvings themselves, at least two phases can be distinguished, exemplified by the site of Vite, Valcamonica, where totally pecked areas are superimposed by rectangular figures (Arca 1999). Since totally pecked areas also appear in complex compositions, closely connected to rectangular figures and rows of cup marks, this pattern seemingly continued over a certain period of time.

It also seems plausible, considering other archaeological evidence relating to the earliest rock carvings of Valcamonica, that the beginnings of the rock art tradition, solely represented by fully pecked areas interpreted as renderings of fields, can be assigned to the Neolithic period at around 3500 BC. Other motifs exhibiting of topographical elements emerged during the second half of the 4th millennium (Arca 1999; Arca 2009; Fedele 2011). Though these were



Fig. 26. Small, almost miniature topographic composition within a surrounding structure, probably a wall. Dos dell' Arca, Capo di Ponte, Valcamonica, North Italy. After Gavaldo 2001.

still created during the 'remedellian horizon' of the Copper Age, some of the more complex 'maps', at sites like Vite and Dos dell' Arca, where fields or villages are shown within what seems to be roundish perimetric walls (even complete with bastions), are more probably related to the Copper Age than to the Neolithic (Arca 1999; Gavaldo 2001). The dating of these figures may be around 2900 BC, or a bit later. Some of the roundish walls could have served agricultural purposes, but the enclosed fields with renderings of what may be stacks of sheaves (see above), could also be regarded as being set within a sacred area marked by an enclosure. (Fig. 26)

Iconographic context

Thus, in an early phase, beginning at 3500 BC, the topographic elements seemingly

stood alone as a singular motif. However, during a certain span of time, other motifs were added to the different 'layers' of renderings of field systems. This accumulation process can be discerned on larger panels: on boulders or blocks, as well as menhirs, including menhirs of anthropomorphic shape. Closely related to the 'venerable' renderings of field systems, other motifs were introduced, first and foremost ploughing scenes, which are sometimes placed at the edge of the field systems, partly superimposing those motifs (Fig. 27). Similarly, stylized bull's horns motif, 'bucrania', are related to the topographical elements. Last, but not least, solar motifs were pecked close to the representations of field systems.

On some of the decorated boulders and menhirs of Valcamonica, such as at Ossimo, there is motif combination with rectangular figures and solar images, which is repeated

Fig. 27. A ploughing scene, from the Copper Age, related to an older topographic composition of totally pecked areas. Also superimposed are three Remedello daggers. Borno, Masso I, Valcamonica. After Gavaldo 2001.



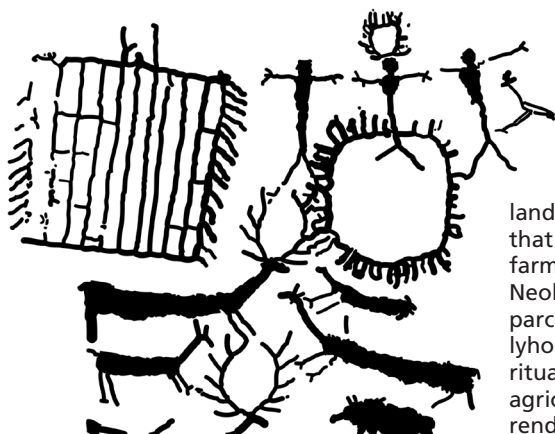


Fig. 28. Part of the decoration on the Ossimo 7 menhir, with rectangular motifs and the sun closely associated. Even though the stag is probably added to the solar motif, its antlers seem to be deliberately worked into the rays of the sun. Drawing: Thomas Bredsdorff after Brunod 1997.

at sites such as Cemmo 2 and Bagnolo 1 (Fig. 28). It has been suggested that those rectangles with connotations to arable land, together with the solar images, express the concept of fertility, where the sun blesses the small plots of cultivated land (Brunod 1997: 59). The topographic elements could be interpreted as the first engravings, and the sun seen as a later addition. However, the possibility should not be excluded that those two motifs were, in some cases, made at the same time, as integrated, equal, parts of a meaningful design.

When summing up a chronological sequence, the first renderings of what seem to be fields and field systems appeared around 3500 BC in the shape of more or less rectangular, fully pecked, areas. Later, more complex renderings of field systems, including what have been interpreted as stacks of sheaves were, as well as what are, presumably, representations of larger enclosed areas, became part of the repertoire around 2900 BC (Arca 1999; Gavaldo 2009; Fedele 2011). Around 2900 BC and after 2900 BC, other motifs were added, all demonstrating a close connection with the topographical elements, including: solar motifs, ploughing scenes, 'bucrania' motifs, and, finally, a (sun)deer. Also, here in Italy, a 'symbol of power', the Remedello dagger, gained great importance.

The topographic elements are seen as reflecting ideas related to concepts of a

landscape transformed by human activities, that is to say, modified by reclamation and farming activities by the members of the Neolithic societies. The depictions of these parcels of land on rock surfaces in all likelihood constituted the central act within ritual practices linked to the sacredness of agricultural cycles (Marretta 2011a: 19). The renderings of these plots of land on the rock surfaces should be associated with concepts of a landscape transformed by human activities, the sacred part of which were the focus for rituals. Furthermore, these engravings can be envisaged as a representation of (a group's) ownership or control of land, expressing kinds of foundation rites related to new land allocation, corresponding with a more stable human-controlled environment (Arca 1999: 77; Gavaldo & Sansoni 2009: 259). When the dagger was included in the repertoire related to the topographic renderings, this 'symbol of power' became a prominent marker of control of land and fields.

Finally, it should be mentioned that there is another group of Valcamonica field system renderings, which is stylistically and thematically somewhat different, belonging to another period: The Late Bronze Age and Early Iron Age (Priuli 1991; Arca 1999). In the case of these carvings, we can speak of something even closer to maps, with more landscape features outlined; but that is another matter, which we shall not touch upon further in this article.

From Northern Italy, via Salzmünde, to Denmark

When accepting that the rectangular (and sub-rectangular) figures on the Baltic island of Bornholm as well as in the Alpine region, including Valcamonica, are representations of plots of arable land, or at very least topo-

graphic in nature, then some similarities and differences are worth considering.

Firstly, when bearing in mind the chronological framework, there is an overlap in time between the renderings of topographic features in Valcamonica and on Bornholm. In both areas, such figures were created at 2900 and 2800 BC. The creation of the Alpine figures seemingly started more than half a millenium before the South Scandinavian figures. However, the dating of some incised linear figures on small slabs from South Scandinavia can be pushed back to around 3200 BC, but, in these cases, it is not possible to classify the carvings as representations of topographic features.

Whereas the Alpine topographic representations were pecked or incised on solid rock, on larger boulders, or on menhirs, the representations on Bornholm were made on small thin pieces of stone; we could to a certain degree speak of them as 'portable art'. Even though the Alpine carvings cover larger areas of the rock surface, they should still be considered symbolic renderings in miniature. In any case, when considering the relative proportions of the fields in relation to the overall composition, some of the depicted Valcamonica fields are not considerable larger than the largest of those seen on the slates from Bornholm.

The Valcamonican topographic representations were placed on open visible surfaces, which made it possible to return to the (sacred) sites, creating additions and alterations over time. In contrast, the Vasagård topographic representations were deposited in the ditches of a causewayed enclosure, and after deposition, no alterations were possible.

Even with these divergences, the relationship between the topographic elements and solar motifs in both areas should be noted. In Valcamonica, there are some examples where solar motifs are placed close to topographic elements. On Bornholm, the stones carrying renderings of topographic elements as well as the stones carrying solar images were deposited closely together. Regarding the Valcamonican examples, it has been suggested that when the rectan-

gular figures representing arable land are depicted alongside solar images, this could express concepts of fertility, where the sun blesses the cultivated plots of land (Brunod 1997). Similar notions may lie behind the motif combination on Bornholm. Perhaps, in some rituals, before being deposited, the two types of decorated stones were used together in order to promote fertility and to control the movement of the sun over the fields. In a more general sense, the depictions of the land portions in Valcamonica are seen as reflecting ritual practices linked to the sacredness of agricultural cycles (Marretta 2011a), which may also be valid for the Bornholm renderings.

Even though the engravings in question, in Valcamonica and on Bornholm, are considered as renderings of topographic features, namely fields, we shall not here claim any direct contact or connections between these two areas. Around 3000 BC, and in the preceding centuries, general changes of the perceptions of fields and landscape could have taken place over a wider European area. These changes are reflected in the fashioning of idealized pictorial representations of fields and field systems. Only in the Alps and in Scandinavia are these pictorial representations created on a medium preserved until today: rock art. At other places in between, similar motifs may have been created on perishable material such as wood, or as paintings on leather (Kaul et al. 2016).

On another non-perishable medium for art, pottery, we find traces of a comparable iconographic repertoire, geographically somehow linking the Alps with South Scandinavia. The richly decorated pottery of the Middle German Neolithic Salzmünde culture (named after a causewayed enclosure site at Salzmünde at Halle, in Sachsen-Anhalt (Schunke 2013 a)), from the last third of the 4th Millennium, c. 3400-3050 BC, provides interesting resemblances with designs both from Valcamonica and Bornholm. This is particularly marked in the case of pedestaled bowls, which seem to have served as drums for ritual purposes, where we find a complexity of motifs that can be regarded

as more than just decoration without meaning (Scheyhing & Schunke 2013).

On the aforementioned drums of the Salzmünde culture, we find a range of motifs, including rectangular motifs with infilled strokes or line patterns (fields), concentric circles, some with radiating strokes (solar images), bunches of parallel strokes, terminating in a marked bend, some called anchor symbols (perhaps crop symbols or renderings of stacks of sheaves), and, finally, more obvious plant-like or flower-like motifs (more accurate depictions of crops) (Schunke 2013b). Not all of these motifs are found closely together on the same drum, but there are a range of combinations, where for instance the parallel strokes (crop symbols) are found close to solar images. On a pottery vessel from Salzmünde, plant-like patterns are considered representations of crops with spikes (In German: *“Drei Motive an einem Großgefäß aus Salzmünde stellen mit ihren Wurzeln und dem ährenförmigen Oberteil sicher Pflanzen dar, möglicherweise Getreide”*) (Schunke 2013b: 265). In the same way, some of the motifs on the small stone plaques from Vasagård, Bornholm, could be considered as depictions of crops with spikes (see above). Having considered the evidence from Salzmünde, we can return to Denmark, to consider the contention that certain pottery motifs possess meaning, and are not just decorative.

Back to Denmark

As we have seen above, a small number of decorated slabs with ‘minilithic’ art from South Sweden and Denmark were recovered from contexts yielding dates at the Early/Middle Neolithic transition, thus prior to the finds from Bornholm at Vasagård and Rispebjerg. However, from an iconographic point of view, it may be difficult to find close parallels with the well-structured repertoire of motifs from Bornholm, and, consequently, it may be difficult to trace these motifs back in time.

However, when considering another medium where this art is found, ceramics, it seems possible to trace a solar symbolism back in time. A connection between

earthenware objects and decorated stones is evident when examining the find material from Vasagård and Rispebjerg from the final phase of the Funnel Beaker culture. Some of the solar stones carry a small sun in the middle, and an edge is fringed with arc decoration. Exactly the same ornamental program is seen on a number of clay discs from Vasagård and Rispebjerg (Kaul et al. 2002; Nielsen et al. 2014a; Nielsen et al. 2014b; Nielsen et al. 2015). On other clay discs from the final phase of the Funnel Beaker culture, a solar symbolism may be observed as well. An interesting example comes from Trelleborg, Western Zealand, Denmark, where a clay disc is decorated with three concentric grooves about an eccentric hole, along the edge of which, there are arcs of tooth-impressions (Davidsen 1978: 33). Even though the concentric circles are made by finger grooves and the arcs are made by tooth impressions, the general iconographical programme is not far from what is seen on the clay discs of that period from Bornholm. Furthermore, the clay disc from Trelleborg seems to belong to a later re-cutting of the ditches or pits related to a causewayed enclosure, somewhat corresponding to the find situation of the decorated slabs from Vasagård. There are some other examples of clay discs from the final phase of the Funnel Beaker culture carrying concentric circles, sometimes with radiating lines (perhaps rays of the Sun), and arcs along the edge (Davidsen 1974; Davidsen 1978).

When these media-crossing similarities, observable on material from the final phase of the Funnel Beaker culture, are taken into consideration, it is not impossible to follow such motifs back in time, and thereby consider them as predecessors for motifs on the sun-stones of Bornholm, at least in a broad iconographical sense. Among such earthenware objects carrying solar motifs, the so-called clay spoons, found in ritual contexts of the Early Middle Neolithic Funnel Beaker Culture, c. 3200 BC, should be taken into account. We shall only highlight a few examples here. In a ritual building, or cult house, Trandum Skovby II, at Sevel, Western Central Jutland, three clay spoons were



Fig. 29. Richly decorated clay spoon from the cult house at Trandum Skovby, Sevel, Jutland, Middle Neolithic, Period MN I. Diameter of disc: c. 16.5cm. Photograph: Flemming Kaul.

recovered, together with richly decorated pottery vessels, as part of (ritual) pottery depositions (Fabricius & Becker 1996: 310-320). Two of the clay spoons are decorated with what we consider as solar images. One of them is almost completely preserved, decorated with concentric circles around a slightly oval central motif. Altogether as a whole, these could represent the vibrant shining sun. The halo may be emphasized by an angular band along the edge of the spoon (Fig. 29). Similar decorated clay spoons have been recovered from ritual contexts in other cult houses of the Early Middle Neolithic Funnel Beaker Culture, such as a cult house at Herrup, at Sevel, Western Central Jutland (Fabricius & Becker 1996: 288), and a cult house from Tustrup, East Jutland (Kjærøum 1955: 20-23; Andersen 2000: 35-36).

More clay spoons have come to light within another group of ritual deposits, the so-called offering layers of pottery, at the orthostatic facades of the passage tombs of the Funnel Beaker culture. A splendid

example has been unearthed at the passage tomb of Grønhøj, near Horsens, East Jutland (Fig. 30). In the initial publication of the excavation of the Grønhøj passage tomb, it is noted that the decoration of the clay spoon could be interpreted as a sun image (Thorvildsen 1946: 83; See also Bagge & Kaelas 1950: 151 and Pl. LXXVIII).

On a number of pottery vessels from the Middle Neolithic Funnel Beaker culture, there is circular ornamentation with radiating strokes, probably representing the sun with its rays. From Bornholm, we could mention such a rosette-like motif from the Ndr. Stensebygård passage grave (Hansen 2004). The upper surface of a carinated bowl, from a settlement at Kjeldbylille, the Island of Møn, East Denmark, is decorated with a horizontal row of circles with radiating strokes, which, in our opinion, are solar motifs, even though such motifs are merely designated as 'circular ornaments' (Müller 1918: 48). Many other examples of similar motifs could be mentioned (Ebbesen 1975).

The so-called eye-motif, occurring on a larger number of East Danish Middle Neo-

Fig. 30. Richly decorated clay spoon from the Grønhøj passage tomb at Horsens, East Jutland. Diameter of the disc: c. 12cm. Photo: Flemming Kaul.



lithic pottery vessels, could also, in our opinion, be related to a solar iconography: the eyes with radiating strokes lending certain solar connotations, which are also probably associated with similar motifs on stone and pottery on the Iberian Peninsula. We shall not dwell on the possible long-distance iconographical connections reflected by this motif; here we shall only mention that in 1918 this motif was considered as the only identifiable figurative motif on Neolithic pottery (Müller 1918: 54). In 1979, in the years of processual archaeology, related to the concepts of positivism and minimalism (Kaul 2004), there was no room for iconographic or religious interpretations regarding these eye-motifs. The face, or eye-motif, was in those years merely seen as a meaningless conglomerate of decorative elements, just one of many other decorative elements, without any specific meaning: "The face motif should therefore most probably be regarded as a pattern element like any other, without any particular religious significance" (Ebbesen 1979: 113).

Now the tide has changed; in the so-called post-processual era of interpretive archaeology (Kaul 2004), it is possible to work with iconographical elements in order to try and to recover their meanings in a broader religious sense. Thus, some complex decorative patterns from the Middle Neolithic should be considered as part of the solar imagery. Of particular interest, is the decoration on a number of domed lids belonging to the so-called hanging bowls, where a striking resemblance with the decoration of a number of the sun stones from Rispebjerg and Vasagård can be observed. Lids from megalithic tombs at: Nebble, Borre, Hjelme, and Mandemarke, all on the island of Møn; and Svinø, in Western Zealand; should be highlighted in this respect (Ebbesen 1975: 114-117) (Fig. 31). Most of the lids belong to a late phase of the Middle Neolithic Funnel Beaker Culture. Therefore, there is not much chronological distance between aforesaid grave finds and the imagery from Bornholm.

On this basis, it is even more interesting that the system-ditch XI.1 from Vasagård Vest has produced two sherds of a lid carry-

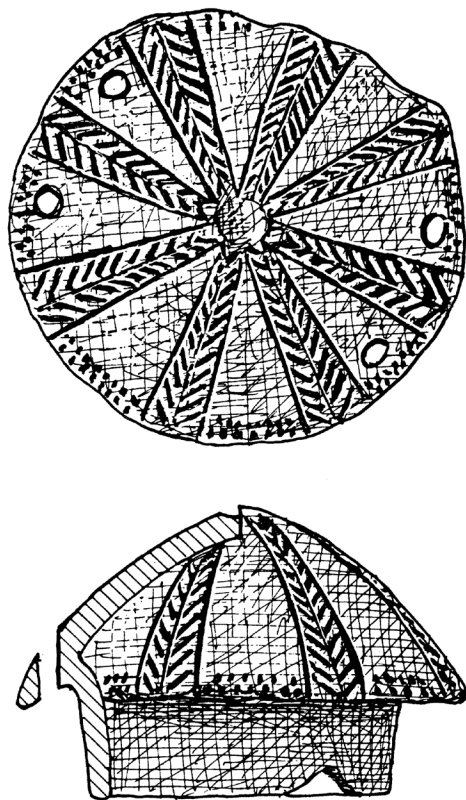


Fig. 31. Domed pottery lid from Nebble, Møn, with a pattern very close to some of the solar stones from Bornholm. Diameter: c. 8 cm. Drawing: H. Ørsnes, after Ebbesen 1975.

ing concentric (solar) decoration. The sherds are probably from the same lid and are definitely not parts of clay discs. Their hard-burnt fabric, and decoration, is very unlike the rest of the ceramic material. The four concentric lines with radiating incisions and impressions have their closest parallel in the clay panel found in the postholes of a circular structure excavated in Vasagård Vest in 2014 (Nielsen et. al. 2015, fig. 14) (Fig. 32). It should be noted that the lid from Vasagård seemingly does not belong to the domed category of lids, but to a flat or plane variant. These flat lids, as the domed lids, belong to the later part of the Middle Neolithic Funnel Beaker Culture. A flat lid from Splittorfs Høj, the island of Lolland,



Fig. 32. VAS#2363: A sherd of a pottery lid found in the black fill of the causewayed enclosure at Vasagård Vest. Photo: Jens Andresen, Aarhus University.

Denmark, carries a decoration of concentric circles with radiating strokes (Davidsen 1974: 35-37); probably yet another example of solar iconography.

Concluding remarks

This study of some recently discovered pieces of minilithic art from Bornholm gives new illuminating insights into the iconography of Neolithic South Scandinavia. Some of the decorations are understood to be representations of fields or features of the landscape and some are seen as solar images. As has been demonstrated, the interrelationship between decoration and their media gives a strong support for this conclusion. This means that the decorated stones are manifestations of a meaningful iconography, and should not just be seen as displays of certain decorative elements (For a parallel conclusion on megalithic art see Nash 2014:4764). The ritual context of the stones seems obvious, the stones being deposited at sacred sites within causewayed enclosures, palisaded enclosures or round temple-like structures. It is important to note that the Vasagård stones, of all types, were deposited together, apparently as part of the same ritual act.

At first glance, the motifs of these small stones may seem to be without predecessors or parallels. However, when consider-

ing the stones carrying rectangular motifs, a background can be found among Alpine rock carvings and Neolithic pottery decoration of Middle Germany. In both areas, circular motifs are found in connection with rectangular motifs. When considering the stones carrying circular motifs, a wider background can be detected, including makings of the Nordic Funnel Beaker Culture, where the details of certain pieces of pottery bear striking resemblances to motifs on the stones from Bornholm.

When considering this interpretation, the desire to depict fields and field systems could reflect rites related to land division, corresponding to a more stable human-controlled environment during the Neolithic. During the centuries around 3000 BC, in many areas of Europe, people may have been facing a pressure on arable land and a pressure on 'ownership', or rights of controlling that land, and the agricultural processes associated thereof, including: the yearly cycles of agriculture, sowing, growth, harvest and consumption. A wish to increase control was not just a matter of human interaction, but also a matter of interaction with the mighty celestial powers, in particular the Sun, or those powers operating in a relationship with the sun, including the spirits of the ancestors. The iconographical and ritual connections between solar imagery and representations of field systems reflect a religious system of the 'Neolithic way of life' that becomes increasingly focused on physical control of land, and spiritual control of extra-human powers of fertility, related to the sun and its perpetual cycle.

It comes as no surprise that Neolithic religion was focussed on the sun; furthermore, a cult of the ancestors seems to have been of great importance. Neolithic people may have thought that the sun (and the moon) were the home of their ancestors and that its rays could re-animate the souls of the dead (Burl 1983: 21); or the souls of (particular) ancestors could travel by or in the beams of the sun at certain times of the year, connecting the celestial world with the earthly world. At any rate, the evidence for the iconography related to the

sun is supported by the evidence from the architecture of the monuments themselves. Across large parts of Europe, including Denmark, a significant number of passage tomb entrances face south-east, the direction of the rising sun on the midwinter solstice. The most accurate example is demonstrated by the gigantic passage tomb of New Grange, Ireland, corroborated by similar evidence from the nearby tomb of Knowth, and other Irish passage tombs (O’Kelly 1982; Eogan 1986; Roberts 2015).

Other Neolithic monuments of Britain and Ireland, like the henge monuments and stone circles, show similar observable alignments related to sunrise and sunset at midwinter and midsummer solstice, including the ‘avenue view’ at Stonehenge and the ‘view’ from the recently discovered avenue of Durrington Walls not far away from Stonehenge (Burl 1981; Burl 1983; Ruggles 1998; Parker Pearson 2012).

The discovery of the small stones from Bornholm with their solar and landscape-agricultural iconography can bring us a step further toward an understanding of Neolithic ideology and religion. The most diminutive objects, measuring a couple of centimetres, as well as the largest, most majestic monuments, of our prehistory are, together, illuminating our understanding of the Neolithic way of thinking and the Neolithic way of life.

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