

Cupmarked “pocket-stones” from Late Neolithic contexts

Introduction

Cupmarks are found embedded in both bedrock, boulders and smaller stones within different regions of Europe with rock-art tradition. They exist both as single marks, in groups or in relation to figurative rock-art. The appearance in relation with scenes of ritual depictions and megalithic burials had led to an interpretation of religious relation for the cupmarks. As the lack any traits eligible for dating them, they are presumed to follow the chronological span of rock-art in general dating from the Late Neolithic to the end of the bronze age (Horn 2015). In Denmark, cupmarks is the dominating rock-carving, while regional differences can be observed. Bornholm stands out with the highest number of figurative carvings, following the tradition from Norway and Sweden with exploitation of natural bedrock surfaces. For the remaining Danish area, figurative rock art occurs to a higher degree in the eastern parts, while cupmarks is predominant in the western parts (Felding 2010).

The smaller cupmarked pocket-stones stands out among the rock-art tradition as an autonomous group, consisting of smaller stones with 1 to 11 cupmarks, and distributed across the current Danish area. The cupmarks is usually smaller than those on bedrock or larger stones. A common trait is the lack of contextual information which means that they are presumed to be chronologically related to the same time frame as cup-marks in general (Glob 1969: 128-9). A combination of the strange composition of the stones, lacking context and focus on cupmarks on rock art has probably led to low level of research into these stones.

The seminal switch in methodology to topsoil stripping on settlement excavations in the 1960's has led to a significant increase of the archaeological record since Glob's (1969) publication of Danish rock-art. This includes the cupmarked pocket-stones as well, where a few examples from Late Neolithic settlement context may contribute to the understanding of this specific type.

Recent examples of cupmarked pocket-stones from the Late Neolithic

In the following section three examples of cupmarked pocket-stones will be presented. All of them comes from Late Neolithic settlement contexts, and their distribution is shown on Fig. 1.



Figure 1: Map of Denmark with the location of the presented examples.

The first example to be introduced here was found at the locality of Søgaarde S near Viborg in an inner posthole of a wall with double rows of postholes, related to a frame-built house with a depression in the western end, typologically dated to the Late Neolithic (Fig. 2).. The stone was situated 15 cm deep in the cross-section and was found during excavation of the feature. Two other houses with depression dating to the same period was found at the same settlement. There were recorded no traces of previous settlement, and it seems safe to assume that the stone should be related to this specific feature and dated to the Late Neolithic.

The stone is made of quartzite, with percussion marks is clearly visible on the curved sides (Fig. 3). The cupmarks are situated symmetrically on the two opposing flat sides. They are both 1,85 cm in diameter and about 0,2 cm deep with a granulated surface in the bottom. Among other things found from the same construction is some uncharacteristic pottery sherds and smaller flint flakes from flintknapping found in the depression.

Another example was found at the excavation of Julievej in the western outskirts of Middelfart on Fyn. It originates from a similar context of a depression in a house C-14 dated to the transition between the Late Neolithic and Early Bronze Age. This stone also shows signs of functional use with percussion marks

Figure 2: Ground plan of the find situation for the example found at Søgaarde S. The arrow marks the feature where it was found.



Figure 3: The cupmarked pocket-stone from Søgaarde S. Photo: Casper Sørensen, Viborg Museum.

and traces of use as a grinding stone on all sides. The cupmarks is again positioned symmetrically on the largest flat opposing sides and have a granulated surface (Fig. 4). Among other finds in the depression from the house were several flint flakes, flint nodules and a reworked bifacial flint dagger and pottery sherds (Prangsgaard 2015).

A last example presented here were found at Østbirk north of Horsens in Jutland. It consists of no less than four cupmarked pocket-stones, found together among other tools on the floor of a depression in a Late Neolithic house (Fig. 5.). An almost finished shafthole-axe of stone were found in the same cache. The cupmarks of the stones have a smooth surface at the bottom and has the same diameter as the shafthole in the axe. They are thus interpreted as part of a drill, used to make the hole in the axe (Borup, in press).

Discussion

The examples presented here all belong within the same chronological frame



Figure 4: The cupmarked pocket-stone from Julievej. Photo: Nermin Hassic, Odense Bys Museer

Figure 5: The cupmarked pocket-stones from Østbirk. Photo: Horsens Museum.



and similar contexts. They can thus be interpreted from a uniform cultural background of technology and meaning. While the cupmarks from the last example from Horsens differ, they all have clear traits from use as a tool.

The examples from Søgaaarde S og Julievej have clear percussion marks on the sides, while the latter also has spots with traces of function as a grinding stone. While the percussion marks could derive from a variety of different use, one probable function could be of a hammerstone used for flint knapping. Flint refuse is a common find from Late Neolithic house contexts, which is also the case for the two given examples. Though percussion marks on hammerstones could derive from a variety of actions, flint knapping seems like a logic interpretation in this context.

Hammerstones is also a frequently found on excavations from Late Neolithic settlement contexts (Skousen 1998, Simonsen 2017: 499-513, Skov 1982). While they appear as different types of stones, quartzite as the one from Søgaaarde S appear in quite high numbers. At the locus classicus site of Late Neolithic houses at Myrhøj, an example without cupmarks but similar in shape to the example from Søgaaarde S was found (Jensen 1972: Fig. 15. No. 7.), along with pointed examples. Pointed hammerstones of quartzite has previously been linked with the final production of the bifacial flint objects characteristic for the Late Neolithic period, however given their hardness this may seem unlikely (Apel 2001: 177). While the hammerstones may not be related to the final stages of the flintknapping of objects in the period, the different shapes may indicate that the different types of hammerstones could have had a specific function in the flint knapping.

In opposition to the examples of hammerstones, the stones from Østbirk has been used as part of a drill. The cupmarks from here with as smooth surface thus appears as having a clear functional relation. This is not the case of the other mentioned examples, where the surface of the cupmarks is granulated. If indeed they had

functioned as part of a drill as well, one would expect their surface to be smooth as well.

The question is then how the cupmarks on the hammerstones should be interpreted? A mere functional explanation would be that the hollowing in the stones were made with the aim to function as handling spots for the fingers to secure a tighter grip when performing the fine art of flintknapping? The same interpretation was made on a similar example dated to the Funnel Beaker culture from Sarup (Andersen 1999: 237-9). If this was the case the interpretation would be of a specialized tool, and more examples should maybe have been found?

Another possible interpretation is in the more ritual aspect. The cupmarks could have been a simple symbolic representation of rock art embedded in an everyday tool as a link to the ritual sphere? A common mistake in the interpretation of ritual in archaeology is the distinct separation of ritual vs. profane. This perspective is hugely biased by a modern western mindset, whereas a clear distinction is not part of all societies, where the spheres is mixed and interchangeable (Brück 1999). Ethnographic studies have also shown that the procurement of raw materials and subsequent compilation of artefacts may be highly ritualized (Pétrequin & Pétrequin 2011). This may very well apply to the Late Neolithic period, where mining of raw flint nodules to produce daggers has been proven in several cases (Glob 1951). Furthermore, a few examples of cupmarks occurring in the context of Late Neolithic burials also illustrate that they were present as rock-art in the ritual sphere from the period (Felding 2009: 58). The question of whether the meaning of cupmarks from hammerstones dated to the Late Neolithic were of functional, ritual or both may stand open for further investigation in the future.

While the examples presented in this article all are dated to the Late Neolithic, not all cupmarked pocket-stones should necessarily be dated to this period. Glob (1969, S. 129) lists a few examples with

a different number of cupmarks found from barrows. As the erection of barrows were most intense in the Early Bronze Age (Holst 2013), and settlement refuse from the prelude Late Neolithic is often found within the fill of barrows, it may seem likely that the majority listed by Glob could be related to this period. In the outskirts of Fyn, a recent example of a cupmarked pocket-stone found in a pit of ritual character dated to the Late Bronze Age were found (Andreasen et al 2011). It is very possible that if looking further into settlement records from the Bronze Age, more examples from these periods could appear.

Concluding Remarks

Three examples of cupmarked pocket-stones has been presented in this short paper. Two distinct types have been proven, one as the regular carved cupmarks and others with a smooth surface created by the use as a drill. While interpretation of the cupmarks related to drills is obvious, the ones carved into the hammerstones less so. A functional aspect as gripping spots for fingers, or a symbolic representation of ritual character could be suggested. A conclusive answer is not presented here, but we may get closer to this in future and more elaborate studies.

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Notes

¹ The example from Søgaard S is filed under the journal VSM 10577 with find number X84 It was found in the construction K3. The number in the database of Monuments and Antiquities is 130801-286.

² The example from Julievej is filed under journal number OBM 2861, with find number X172 at Odense Bys Museer. It was found in the context of the house construction K8. The number in the database of Monuments and Antiquities is 080713-95.

³ The locality of Østbirk was excavated by Horsens Museum, and presented further in Borup (in press). The number in the database of Monuments and Antiquities is 160515-208

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