

Middle Neolithic pottery decoration tools from Alvastra pile dwelling

The Alvastra pile dwelling was built during the Middle Neolithic A (c. 3300–2700 cal BC) in a spring mire in Östergötland province, Sweden. The wooden platform is unusual in its form and its function is debated. The finds consists of well-preserved organic materials (osteological remains, bone artefacts, archaeobotanical material and wooden artefacts), lithics and pottery (Browall 2011; 2016). Parts of the large pottery assemblage have been attributed to both the Funnel Beaker Culture (TRB) and the Pitted Ware Culture (GRK; e.g. Frödin 1910; Malmer 2002, p. 105). The pile dwelling is at present unique in the Scandinavian Stone Age, though several similar sites are known from the Alpine region, e.g. Switzerland and Italy. The finds from Alvastra pile dwelling are key to understanding the Neolithic in the region, as well as material assemblages from MN A as a whole, since both TRB and GRK material has been deposited at the platform.

However, the voluminous finds have not been fully catalogued and analysed by researchers (parts have been published by During 1986, Hulthén 1998 and Browall 1986; 2011; 2016). In the spring of 2015 an infrastructure project was initiated at the Swedish History Museum, funded by the Swedish Foundation for Humanities and Social Sciences, that will register the finds unearthed during the excavations organised by Mats P. Malmer in 1976–80 – making the material accessible for further research.

Pottery production at the pile dwelling?

The pottery found at the pile dwelling has been debated back and forth as being primarily TRB (Frödin 1910, pp. 75 ff), primarily GRK (Malmer 2002, pp. 105 f) or representing both traditions (Carlsson 1998; Hulthén 1998; Browall 2011; 2016). In my work with registering and classifying the pottery at the pile dwelling it has become evident that there are at least three types of pottery there. Not only have TRB and GRK been identified, but also a third, seemingly unique type of pottery currently named *Pile Dwelling Pottery*

(PDP). This type has so far not received any scientific definition (Browall 2011, p. 289).

As the registration of the pottery progresses, a lot of clues point in the direction of possible pottery production at the pile dwelling. On all points in Neolithic pottery production where time and thorough work was necessary, i.e. preparing the temper, working the ceramic matrix, joining the coils together and shaping the vessel, the potters chose less time-consuming methods for the PDP. The clay matrix is not thoroughly worked, the temper used for a certain group of sherds is unprepared rounded gravel, most of the sherds are made by means of the the u-technique (Hulthén 1998, p. 17) and the vessel walls are thick – all in contrast to the TRB and GRK pottery found at the site, where the sherds display a high level of skill.

Note that comparing the pottery traditions at the site is not an easy task. There is variation within the PDP that corresponds to the variation within the TRB pottery. At the same time the differences between the PDP and the TRB and GRK pottery are so great that they cannot simply be explained by normal variation. This has led me to the conclusion that the PDP was made for and possibly at the pile dwelling, as a designated part of the activities on the platform. Other traces of possible pottery production at or for the pile dwelling are piles of gravel deposited on the platform (Browall 2011, p. 251; 2016, p. 99), burned clay, ceramic coils of the size and width desired for making pots, as well as unburned clay. Here I will focus on a group of small bone objects and their possible connection to pottery production at the site.

Small awls as tools for decorating pots

The decoration of the vessels found at the platform varies depending on which group a sherd belongs to. It also varies within the PDP group. There are definite parallels with the GRK pottery tradition, including rounded pits, as well as incised elements applied in horizontal rows under



Fig 1. Small awl (FID1254459) from Alvastra pile dwelling. Note the bifurcated point. Photo: Ola Myrin, SHMM.

the rim, above the shoulder and sometimes on the body.

Much of the TRB decoration is intricate and meticulously applied. Small decorative elements such as small pits applied in pairs occur (Browall 2011, p. 280, fig. 304), as well as short vertical imprints that can cover parts of the vessels in horizontal rows (Browall 2016, pp. 111–113, figs 71–73). Vertical and/or tilted lines applied in a dragging motion are a recurring decorative element. The lines are often applied in pairs and can separate different decorative elements from one another, sometimes filling triangular shapes (Browall 2011, pp. 276, 280f, figs 299, 304, 306:1).

A few artefacts from the pile dwelling may be some of the original tools used for decorating the vessels found at the site (Browall 2011, pp. 306, 331). These objects are made out of bone or tooth. Five such objects have previously been suggested as implements for decoration, where



Fig. 2. TRB pottery sherd (FID1208180) and small awl (FID1254459) seen together. The awl's intact point is placed in connection with the decoration it is suggested to have made, a vertical line. Photo: Ola Myrin, SHMM.

one of which, a bifurcated 46 mm long bone tool (Browall 2011, p. 306) is the most probable candidate, possibly correlating with incised pits applied in pairs i.e. V28 – vertical double pits (Sw. *vertikala dubbelstick*) (Browall 2011: 260).

In my work with registering the bone artefacts from the Eastern trench, a type of small awl caught my attention. Six of these have been found, in all three trenches from Malmer's excavations (FID1209107, 1209108, 1209684, 1209931, 1254459, 1259591). Three of the small awls are intact and can be measured: they are 29.5–43.8 mm long.

Awls are common at the pile dwelling. More than 300 of them have been found, and the osteological analysis of the bone artefacts from Frödin's excavations shows that their manufacture was highly specialized (Browall 2011, p. 298). The small awls appear to have been prepared in much the same way as the larger awls (Browall

2011, pp. 295–302), but where the mid-section begins on the larger awls the points of the smaller ones is already formed (fig. 1). The preparations to obtain the shape of these small awls was rigorous and it is clear that the shape was intended. Although a small awl could be reworked from a broken, larger awl, or quite possibly from a bone element intended to form a larger artefact, the shape and traces of meticulous grinding to obtain the desired shape of the small point are evidently quite intentional.

In the case of FID1254459 I have been able to correlate a small awl with decoration on a TRB pottery sherd (FID1208180; fig. 2). This is Browalls decorative element V19, vertical lines (Sw. *vertikala streck eller linjer*) (Browall 2011, pp. 259), and it has been applied in a downward, dragging motion. This particular awl has a bifurcated point. Unfortunately, one of its little points has broken off, making exact calculations of length and width impossible. Nonetheless, when put together the intact point fits perfectly into one of the lines, and the missing point could with ease have fitted right into the other line (fig. 2).

In addition to the possibility of the lines on the TRB pottery being applied with a bifurcated tool, there are a few additional decorative elements that may have been applied with this particular type of small awl as well, e.g. variations of V23 – horizontal zig-zag (Sw. *horisontell sick-sack*; Browall 2011, p. 276, fig. 299:1, 2, 4) and V31 – hanging triangles (Sw. *hängande trianglar*; Browall 2011, p. 281, fig. 306:1).

The small awl that fits directly with decoration on a TRB potsherd is a clear indication that not only was the PDP possibly made at or for the pile dwelling: so was some TRB pottery. This implies that the pottery present at the site, and the production thereof, played a particular role within the activities performed for and at the platform. The activities at the pile dwelling, which are much debated, clearly involved the making of

specialized items such as pottery. It is possible that other objects were also made for the purpose of being deposited at the Alvastra pile dwelling. This opens up for new interpretations concerning the meaning of the activities in the Alvastra mire during the MN A.

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