



Contents lists available at ScienceDirect

## Journal of Archaeological Science: Reports

journal homepage: [www.elsevier.com/locate/jasrep](http://www.elsevier.com/locate/jasrep)

# Pottery craft tradition in transition: From Neolithic central China to Bronze Age northern Sweden

Ole Stilborg

Stockholm University Archaeological Research Lab, Dept of Archaeology and Classical Studies, Stockholm University, SE-106 91 Stockholm, Sweden

## ARTICLE INFO

### Article history:

Received 16 April 2015

Received in revised form 6 April 2016

Accepted 2 March 2017

Available online xxx

### Keywords:

Asbestos

Bone

Feathers

Fish scales

Grog

Hair

Organic temper

## ABSTRACT

The diversity of different organic materials and the mixtures of materials used hold rich information on the practical and social relationships between material and human cultures. Regarding pottery, these differences are best examined through the analyses of thin sections. The main focus of this study is the transition and material dialogues that seem to have occurred when a possible ancient Asian pottery tradition reached the Baltics and Scandinavia during the Early Neolithic (from 6500 BP). Two recognisable traits of the Asian tradition are the use of a comb tool to press and scrape the vessel walls during construction and the use of different kinds of organic tempering materials. The oldest examples of this tradition in China date from c. 19,000 BP. Thin sections from three different wares from Latvia, Finland and Sweden were used to analyse the development of the Asian pottery tradition, the repercussions of which are seen as late as the Bronze Age in northern Sweden.

© 2017 Elsevier Ltd. All rights reserved.

## 1. Introduction

'Do not judge a man by the colour of his skin' and 'do not judge a book by its cover' are truisms that form a good basis for the discussion of the role of pottery technology in understanding transitions in material culture traditions. It is typical and not at all surprising that the archaeological discourse on pottery very often focuses on the shape and decoration of the pots, especially in the interpretation and discussion of the results. This traditional view is a practical one, as the design of a vessel is apparent to everyone and lends itself to macroscopic measurements and classifications. Furthermore, it appeals to our sense of aesthetics. What lies below the surface (but is just as visible in breaks as the ornaments on the surface) is regularly recorded and referred to in general terms but rarely discussed in detail in the interpretations of the culture historical developments and transitions of pottery traditions (Quinn, 2013, 16). Even examples of thorough macroscopic recording backed up with analyses of thin sections often result in discussion of coarse wares versus fine wares, thus neglecting potentially important data (Heiner, 1994). The choice, treatment and mixture of raw materials to form ceramic vessels, and indeed the shaping method and the firing, are intrinsic parts of any sherd but quite loosely bound to the design of the vessel. Most vessel forms may be made from a wide range of different wares and vessel-building techniques. However, the technical solutions used are always chosen within a craft tradition framework that

determines an acceptable range of variation (Dürrenmath, 2003; Sillar, 1997, 11; Stilborg, 2012; Vossen, 1990, 255ff). The fact that there is, on the one hand, in objective technical terms, an interchangeability between a number of different possible solutions, while on the other hand there are traditional limitations (craft traditions), gives rise to a rich source of information on the relationships between ceramics and human agencies.

In this paper, I will refer to traditional archaeological culture definitions, even though the cultures are not solid entities but webs of overlapping practices constantly negotiated and under change (Gramsch, 2009). It is beyond the scope of this paper to go into a general discussion of the concepts of culture or material culture (Thomas, 2007), or to provide a critical discussion of the specific archaeological cultures mentioned.

Craft traditions form a type of potentially very conservative cultural practice because they are 'invisible', and for the same reason deviations/changes that clearly emulate other traditions reveal contacts that must have been of a magnitude to allow direct transfer of practical knowledge (Jordan and Zvebil, 2009b, 51, 67f). The more complex the technological tradition (in this study the focus is on ware composition), the greater the potential information on the relationship between different pottery productions. Through this equation of complex technological transfers with human social contact, data on variations and changes in craft traditions are related to the developments and transitions that we want to understand for the pottery itself as well as for the human societies in general. Analyses of thin sections using a petrographic microscope, and data interpreted on the basis of a thorough knowledge of

E-mail address: [skea@stilborg.se](mailto:skea@stilborg.se).

ceramic craft techniques and chaîne opératoire, facilitate a deep insight into the ware composition and a wider perspective on ware traditions. As a good example, thin-section analysis makes it possible first of all to verify the existence of grog temper and secondly to identify the ware (or wares) including temper of the pottery crushed to be used as grog, thereby proving a direct contact with an earlier or contemporary ware (Eriksson, 2013 and refs therein).

This paper presents a review of the transformations and transitions that took place in the pottery craft around the Baltic Sea during the period 5500–4000 BCE (Hallgren, 2009, 385), when an eastern ceramic tradition with roots possibly as early as 18,000–20,000 BP in central China (Xiaohong et al., 2012) arrived in the area (Gronenborn, 2011; Jordan and Zvelebil, 2009b). The idea of a Eurasian tradition, albeit with numerous variations, is controversial (see below) but it forms a very interesting background to the discussion of singular aberrant wares as well as major ceramic craft developments in the eastern parts of Scandinavia during the Neolithic and into the Bronze Age. It also provides a good opportunity to discuss the potential of thin section analysis. The review is based on published information on ware compositions and thin-section analyses (for the method see Quinn, 2013, 4ff) of specific wares, and on analytical results from my own studies. The paper discusses singular samples that from a statistical viewpoint could be disregarded as potential outliers with limited bearing on the vast amount of pottery unearthed. While this is a sound scepticism, these singular wares represent the complex results of a craft tradition. Thus even singular analyses can help our understanding of trends in the development of the ceramic craft and should lead to models that can be tested by a larger series of analyses.

In comparing the analytical data with published ware compositions, it must be borne in mind that it is very rarely indicated whether the latter are based on macroscopic observations or on analyses. This makes data evaluation especially difficult.

## 2. The eastern tradition

The idea of an eastern pottery tradition spreading from the Far East, and with roots in central China, is addressed in overview articles by various authors (Jordan and Zvelebil, 2009a; Fig. 1). This Eurasian tradition is a much debated idea and requires a large volume of research to be discussed in sufficient detail (Hartz et al., 2012; Hartz and Piezonka, 2013; Jordan and Zvelebil, 2009b; Kuzmin et al., 2009; Kuzmin, 2013). While Kuzmin is probably correct that it would be wrong to imagine a wave-of-advance diffusion of pottery from east to west through Eurasia (Kuzmin et al., 2009; Kuzmin, 2013), I side with Hartz and Piezonka's (2013) in their argument that diffusion should be considered as one of the processes responsible for common traits seen in early pottery throughout this vast area.

The technological traits focused on in this paper do not occur everywhere, have local adaptations and are combined with local traditions and techniques. One special detail of vessel-building technology, the use of a toothed tool for pressing and shaping the vessel wall on both sides, occurs regularly in the pottery assemblages from central China around 19,000 cal. BP (Xiaohong et al., 2012; Yasuda, 2002, Fig. 4), over Siberia and Russia, to the Narva culture in the Baltics dating from 5500 BCE (Dumpe et al., 2011, 410; Piezonka, 2011, 325) but not further west (Fig. 2 and Table 1). The often millimetre deep and characteristically sharp striation could not have been made by smoothing with grass fibres, as suggested by some (Xiaohong et al., 2012). Thus this technology is important for claiming some kind of transference of a technological tradition across this huge area. In eastern Siberia, the Ust'-Karenga pottery dated to 11,000 uncal. BP, has comb striations associated with an organic tempered ware and a pointed base, very similar to Narva pottery (Dumpe et al., 2011, 416f; Gronenborn, 2011, pl.3; McKenzie, 2009, 177f). Even organic tempering has old roots in central China, but it is not clear from the literature whether it is associated with the striation in the earliest pottery (Pei, 2002, Fig. 8; Zhang,



Fig. 1. A map showing the find location of pottery used in this study. 1, Central China; 2, Ust' Karenga; 3, Volga Kama; 4, Bug Dniester; 5, Okhta; 6, Osa; 7, Särnate; 8, Jäkärälä; 9, Kosjävär; 10, Umeå-area (see also Figs. 5 and 6).

2002, 187). In the pottery made across the vast areas between Ust'-Karenga and the Narva culture during the intermittent 5000 years, organic tempering occurs from time to time (ostrich egg shells being a special variant; McKenzie, 2009, 183) and often intermixed with wares tempered with crushed rock or grog (Table 1). Shell temper, which is common in the Narva wares (Dumpe et al., 2011), is also found in the Dvina area, Russia, but not further east.

Grouping together materials as diverse as plant fragments and crushed shell in one organic temper group is of course not altogether appropriate, as these materials have very different effects on vessel construction and possibly even the usability of the vessels. However, mixtures of different types of organic tempering materials are not uncommon in this tradition (Dolukhanov et al., 2009, 239; Dumpe et al., 2011, 417). Seeing organic tempering as a coherent tradition, no matter what organics or combinations of organics are used, draws attention to the way the prehistoric potter perceived and classified ceramic raw materials: was clay seen as an organic material (an earth) or as an inorganic material (a fine-ground rock)? Organic tempering per se has of course been invented independently and used in many parts of the world. The weight of the argument for a wide-spread Eurasian craft tradition lies in the specific combination of very special comb striations (i.e. use of the same kind of tool and in the same way) with an evolved, complex organic tempering tradition. Of particular interest is what happens when this ancient Eurasian tradition meets a predominantly rock-

Download English Version:

<https://daneshyari.com/en/article/7445081>

Download Persian Version:

<https://daneshyari.com/article/7445081>

[Daneshyari.com](https://daneshyari.com)