

Younger Grey Ware

Definition, Function and Potential

BY ERIK JOHANSSON

Abstract

Johansson, Erik. 2013. Younger Grey Ware: Definition, Function and Potential. Lund Archaeological Review 18 (2012), pp. 61–71.

Younger Grey Ware has been called many things in all the archaeological literature, and in some cases it has been given quite different dates of origin. Though no one has paid much attention to this grey earthenware, it is one of the more common types found in medieval cities, throughout northern Europe and Scandinavia. For this reason, definitions and the described function of younger Grey Ware can differ. This article is an attempt to acknowledge that and to put younger Grey Ware in focus. This article also attempts to show that it holds a potential as case-study material, and that pottery experts and historical archaeologists need to consider the different definitions of younger Grey Ware in order for readers to grasp the essence of younger Grey Ware, i.e. what it is and when it is from. For instance, did it exist before the beginning of the 13th century? The lack of consensus can become a problem if younger Grey Ware is the key artefact of an excavation or other research project. My thesis is that younger Grey Ware can give us details about the medieval household from where it is found to the interregional contacts during the high Middle Ages. *Erik Johansson, Södra Förstadsgatan 118, SE-21428 Malmö, Sweden. eriksgjohansson@gmail.com*

Introduction

In order to make pottery studies meaningful and justify them economically, it is crucial that we archaeologists learn that pottery is not only an abstract mass of sherds to count, weigh and sometimes make a drawing of (Lindahl 2000, p. 171).

When researching younger Grey Ware (Sw. *Yngre Svartgods*) from Kv. Apotekaren 4 (KM 70361) in Lund, I soon realized that the basic facts concerning the definition of younger Grey Ware did not correlate within the archaeological literature. Most publications use different terms to describe this pottery, and these can often be traced to a few different origins,

primarily Selling (1955), Broberg & Haselmo (1981) and Lüdtke (1985). The terms vary between countries, of course, and names such as younger Grey Ware, reduced Grey Ware, reduced earthenware, younger Black Ware and Harte Grauware can all be found. The dating varies as well, which is one of this article's focal points, more precisely: *Did younger Grey Ware exist in Scandinavia before, or was it introduced at the start of the 13th century?* The reason for this date is the introduction of pitchers and bowls at this time, and also that the majority of the medieval younger Grey Ware dates to just after AD 1200.

The initial knowledge transferred from

ocular examinations of pottery sherds in the field to common knowledge or published archaeological research is of course fraught with problems. That is why there is a difference in information throughout the archaeological reports and publications. I think it is essential to know how archaeological knowledge is produced, and that there are differences in how field archaeologists record and analyse archaeological features and finds. This can be due to a lack of funds or a difference in excavating technique, for instance the use or non-use of metal detecting. Whatever the differences are, it will have consequences affecting later stages in archaeological research. Using the same terminology is therefore crucial for the efficient use of an artefact, even of mass material such as pottery.

Brorsson has stated in his analysis of the ceramic material from Ystad that younger Grey Ware or wheel-thrown reduced grey earthenware is believed to have its origin in German workshops around 1150, but its introduction to Scandinavia is still a debated issue (Brorsson *et al.* 2006 & 2007). Sherds belonging to the German equivalent, Weiche Grauware and Harte Grauware, are said to occur in Lund and Sigtuna around 1150 (Roslund 2001, p. 141). This could however refer to the handmade pottery type, which is called *Older Black Ware* (Sw. *Äldre Svartgods*) by some. The pottery from Fosie village 10, excavated in the middle to late 1990s, refers to Broberg and Hasselmo's terminology (1981) and to Brorsson's study of the medieval pottery from Ystad and Kyrkheddinge (Brorsson 2001). It is said here that the younger Grey Ware was introduced around 1200 AD, and the mention of it being older is not brought up (Jönsson & Kockum 2004). These are just some of the irregularities found in the literature covering younger Grey Ware.

Background to the study

A newly formed project about younger Grey Ware has made it possible for me to analyse a large quantity of younger Grey Ware sherds from excavations done in Lund. This is a part of a research project run by the Laboratory for Ceramic Research at Lund University and Stilborg Keramikanalys. In order to get the most out of the material, younger Grey Ware from medieval cities along an east–west and a north–south transect across Sweden will be analysed. This will give more insight into the trade and spread of younger Grey Ware (Lindahl & Stilborg 2011). Data from the registration serve as foundation for this article. Younger Grey Ware has never been the sole study material for any dissertation; however, many archaeologists have dealt with it in excavation reports and some articles. As we have seen, this has led to a heterogeneous view of the material, as archaeologists present different definitions, names and functions of this type of pottery.

Trade increased during the 13th century with the establishment of the Hanseatic League. Town dwellers profited, and it also led to the liberation of craftsmen and merchants, even though they were subordinate to the landowners (Rosén 2004, pp. 31 f.). In my opinion this development is connected with the arrival of the new wheel-thrown pottery. It could be argued that the pottery is the result and evidence of such a development, since communications between Scandinavia and northern Europe increased at this time. In Denmark, Hans Krongård and Jens Vellew make a crucial claim when they state that the pottery wheel did not come into use until the beginning of the 13th century (Carelli 2001, p. 164; Krongård & Vellew *et al.* 2004, p. 218). Quite a few pottery kilns have been discovered in Denmark, and they are commonly placed outside the towns (Kock 2001, pp. 11 f.). A kiln excavated in Cecilielyst contained

younger Grey Ware from 1250–1350 AD (Kock 2001, p. 13, fig. 2).

Younger Grey Ware is found in all medieval towns in the middle and south of Sweden. There have also been finds in villages, though often a smaller quantity. It is believed that it was brought here from Northern Germany (Broberg & Hasselmo 1981). In Sigtuna and Lund the younger Grey Ware is believed to have been introduced as early as around 1150 (Roslund 2001, p. 141). In towns such as Nyköping, Söderköping, Gamla Lödöse, Ribe and Halmstad the pottery dates back to the beginning of 13th century. The difference in the dates between these cities, in my opinion, has to do with what the scholars include in the definition of younger Grey Ware (see “Definition” below). Dating pottery such as younger Grey Ware is difficult; it requires closed contexts dated by either coins or dendrochronology. One particular excavation of this is Kv. Apotekaren 4 in Lund (KM 70361). Each phase from the site comprises about 50 years. But the pottery itself does not show any big changes between these phases (Johansson 2011). There is a change in the first quarter of the 13th century, with the introduction of pitchers and tripods, but this could actually be a change in the ware-type of pottery instead of changes within what is called younger Grey Ware. For instance Harte Grauware seems to replace its predecessor Weiche Grauware at the end of the 12th century in Schleswig (Lüdtke 1985). In Swedish material there is no clear way to incorporate both Weiche and Harte Grauware in the term *Yngre svartgods*, but sometimes they are referred to as Western European ware and younger Grey Ware (Larsson 2000). The question is whether younger Grey Ware existed as early as 1150, or whether this type of pottery should be called older Grey Ware/Weiche Grauware.

Definition

Selling describes the essentials of younger Grey Ware as follows:

Grey earthenware, fired in a reduced atmosphere, to approximately 700–900 degrees Celsius. Relatively compact but still porous, often with a ring to it. Glazing does not occur, but the surface can be polished. Handmade in combination with the use of turntable, and often wheel-thrown (Wahlöö 1976, p. IX, free translation by the author).

Initially I would like to comment on the use of hardness criteria when defining pottery. Simply put, it is unreliable, and this is because the thickness of the vessel is crucial to the outcome when firing pottery at high temperature. That is, a thin ceramic vessel will be as hard when fired at low temperature as a thick ceramic vessel will be when fired at high temperature (Vandrup-Martens 1998, p. 26).

The definition of younger Grey Ware is closely related to the decisions and knowledge of those archaeologists doing the field pottery registration. These persons’ experience and knowledge, based on the current archaeology, is what is later presented in the archaeological reports. This is consequently used as source material for coming scientific research. Since no one yet has synthesized the present knowledge about younger Grey Ware, the definition continues to be inconsistent, and thus, there is no standard definition.

In order to define a ceramic vessel of certain earthenware, it is crucial to understand the structures of which it is a part of. These could be argued to be *social organization*, *social practices* and *the physical environment* (Schmidt Sabo 2005). For younger Grey Ware we have the newly formed pottery workshops as a social organization, whereas the pots were formerly made in or near the household. This

means that especially towns and villages saw and experienced a new craftsmanship emerge and claim both territorial and social ground. The practices of these workshops are connected with both the social and the hierarchical structure of the workshop, and still higher up in the societal structures, the guild and the Hanseatic League. Beneath these large structures, the connection with the practices of the workshop can be seen in the form and function of the ceramic vessel. The difference in the rim sherds could, for instance, be linked to one particular workshop, where the form of the vessel was continuously taught from master to apprentice (Botwid, K., *personal communication*). This is confirmed by the fact that younger Grey Ware cannot be chronologically ordered by the shape of the vessel rim (Lüdtke 1985, p. 142; Johansson 2011, p. 13). The morphology of the rim survived through generations of potters, though there was an increase in the S-formed rim, at least in Kv. Apotekaren 4 (Johansson 2011, p. 19).

The definition of younger Grey Ware also has to be made in contrast to other earthenware existing in the same period, for instance

Red Ware, Baltic Ware and older Grey Ware. Red Ware is easily distinguished because of its colour and the fact that it is often glazed. Baltic Ware is often as easy to distinguish due to its ornamentation, colour and temper. There are difficulties here as well, however. Some sherds can look very much alike. Older Grey Ware and especially the form *Kugeltopf*, which is a globular pot with a rounded base and an outwardly bent rim, can be very hard to distinguish from younger Grey Ware – not so much in the case of a body sherd (because it is often thicker), but the rim sherds can look very similar.

In Ribe, Madsen has used his own system for categorizing the pottery. The younger Grey Ware has been divided into two groups; A1 and A2, where the transition between the two is considered a protracted process. This is based on the hardness of the ware, and goes along with the pottery in Schleswig (Weiche and Harte Grauware). However, there is no mention of the way the pots were made, only how they were fired (Madsen *et al.* 1999, pp. 106 ff.). And although it looks as if the transition between A1 and A2 is a good example



Fig. 1. Three younger Grey Ware vessels from Lund. Photo by E. Johansson.

of the development of pottery kilns, the throwing wheel is not mentioned. Archaeologists has pointed to the continuation from older Grey Ware to younger Grey Ware, and this is well argued if you consider the shape of the vessels (predominantly *Kugeltopf*) and the variation of temper in both older and younger Grey Ware. However, it must be said that older Grey Ware is not wheel-thrown, but hand-built on a slow manually rotated plate, and it is not the produce of pottery workshops, for which the younger Grey Ware can, hypothetically, be said to be a material consequence of the German cities' trade expansion in the Baltic during the 13th century. The introduction of the pottery wheel, one can argue, happened at the same time we see thrown pitchers, bowls and vessels with thrown ornamentation.

In order to define an artefact we also have to compare and contrast it to other similar artefacts from the same historical period. In the case of younger Grey Ware, the comparison must be made to other reduced Grey Wares, i.e. *Kugeltopf*-shaped vessels. We can then see that the shape is continuous, mainly because of its thermic functions and its usefulness as a cooking pot, but we also see an important difference – the size. I have noticed that the old type of *Kugeltopf*, that is, the ones that are not made on a pottery wheel, have a larger rim diameter and can hold a larger volume. This indicates that they were made for the purpose of the main cooking pot of the household. The younger Grey Ware is almost always smaller, around 11–12 cm in diameter, and holds 1.5–3 litres. With this narrow rim and small volume capacity it is hard to stir the contents, and the logical conclusion is that it ought to be regarded as a secondary cooking vessel, mainly for heating liquids (Serra 2011).

In a detailed study of the pottery from Mynttorget in Stockholm, Mikael Johansson distinguishes between several groups within younger Grey Ware. This he does using such criteria as surface texture and colour (Johans-

son *et al.* 2011, pp. 82 ff.). Regrettably, this type of division has not been done for any material from Lund, but it can well be argued that a comparison with the well-dated material from Kv. Apotekaren 4 could give interesting results. Also, none of the younger Grey Ware from Mynttorget is dated older than 1200–1350 AD, and the narrowest interval is 1270–1350 AD (Johansson *et al.* 2011, pp. 82 ff.). The colour of the ware says something about the raw material and the production, and together with the shape of the rim, perhaps more detailed groups within younger Grey Ware could be identified. However, I believe, that a comparison must be made with the German material in order to close in on production sites (cf. Johansson 2011, p. 57).

Function

The function of a ceramic vessel has to be argued to be closely connected to the shape and size of the vessel. However, there are more dimensions to it, if for instance the vessel is rare and expensive, and thus holds a higher value for its owner. Or it may be that the owner her- or himself makes the value of the vessel special. The case for younger Grey Ware, I think, should not be over-analysed. The manufacture of a typical younger Grey Ware vessel would have taken a potter a couple of minutes on the pottery wheel (Ormmell, Å, personal communication).

The most common shape of younger Grey Ware is a globular pot, *Kugeltopf*. It is the heritage from older Grey Ware, and further back still; prehistoric pottery. The shapes of ceramic pots are very conservative, not surprisingly since their uses have been the same for thousands of years.

Table I is a summary presentation of the data obtained when analysing the younger Grey Ware sherds from Lund.

	Kv. Myntet 3–5	Kv. Tegnér 1	Kv. Gyllenkrok 3–5	Kv. Apotekaren 4
Number of sherds	320	130	403	499
Average thickness (mm)	5.67	5.17	5.11	5.5
Total weight (g)	3082	1016.8	4521.6	
Average weight (g)	11.05	9.7	12.35	20
Decoration	32 (9.3%)	29 (22.3%)	120 (29.8%)	
Number of rim sherds	32 (10%)	13 (10%)	46 (11.4%)	
Width of rim (cm)	12.2	12.96	14.8	
Number of pitchers	5	0	3	
Traces of manufacture	213 (66%)	45 (35%)	250 (62%)	
Soot	77 (24%)	45 (35%)	150 (37%)	

Table 1. Data from younger Grey Ware sherds from three excavations in Lund.

Looking at the bold numbers, we see a homogeneous assemblage of pottery with the exception of the ornamentation on the sherds from Kv. Myntet. What is interesting about this is the width of the vessels. The numbers in the table above represent the outside diameter of the vessels, which means that the actual width is that figure minus approximately one centimetre. The most common younger Grey Ware vessel is therefore an 11 cm wide globular cooking pot with or without legs. From the measurement taken on whole or partly whole vessels (e.g. Wahlö 1976, vessel no. 114), the volume of a vessel could be calculated from the width of the rim. This can give us an estimate of how much liquid a globular cooking pot can hold (Johansson 2011). The results show us that it is not often more than one to two litres (Johansson 2011). With that in mind I discussed the function with Daniel Serra, who specializes in Viking Age and medieval cooking. I should point out that the following thesis has not yet been scientifically examined; it is just the main points drawn from reflections using my data (see table I) and Serra's knowledge of medieval cooking

and recipes. Our conclusion was that, based on the volume and the width, the average younger Black Ware pot would not have been practical as a cooking vessel for more than a few portions of food at a time. The small width makes it hard to stir. It would be more practical, however, to use it as a secondary vessel for broths and other liquids, perhaps to heat beer, wine and water (Serra, D., personal communication; Serra 2011). To my knowledge, no experiments or lipid acid tests have been carried out on Younger Black Ware sherds. The average of the volumes registered by Wahlö (1976) added up to 1.5 litres. The corresponding average for rim width was 10.7 cm. This shows that the smaller vessels have a bigger chance of surviving unbroken, but the sherd material shows that the most common vessel are just two centimetre wider. Each centimetre corresponds to 1.68 dl, which means that a vessel with a rim of 12 cm holds approximately 2 litres.

Lastly, the most common rim sherd deserves a comment. During the 13th century the S-formed rim made up 45% of the total number of rim sherds in Kv. Apotekaren 4,

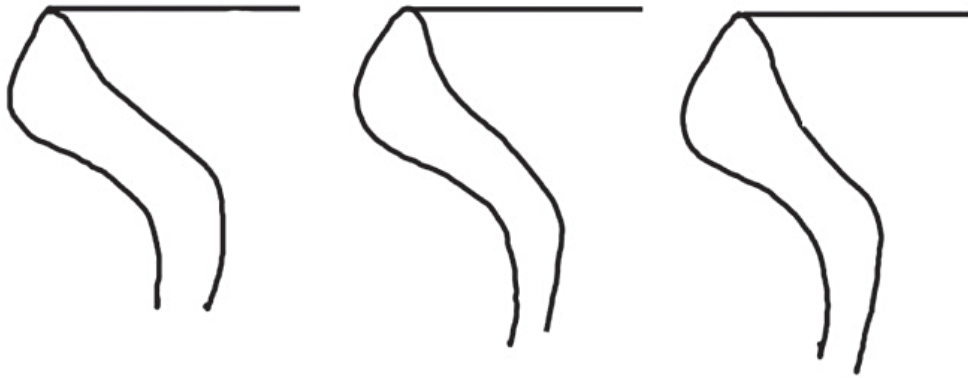


Fig. 2. Examples of S-rims, from Kv. Apotekaren 4, Lund. Drawing by E. Johansson.

and then it increased to 61% during the first half of the 14th century. It would require a larger amount of material over a larger time span to make any definite conclusions, but it seems that the S-rim became more common during the high Middle Ages (Johansson 2011). Knowing this, we now can discuss the potential of younger Grey Ware as case-study material and a key artefact.

Potential

The following is an abstract attempt to put younger Grey Ware into a larger theoretical context. Younger Grey Ware ought to be regarded as a material consequence of the new trade routes and cities being established around the Baltic, mainly in northern Germany, many of which were later included in the Hanseatic League. Emperor Lothar III in 1134 and later on in 1161, Henry the Lion made political decisions that enabled the presence of Scandinavians in Saxony (Roslund 2009, pp. 217 ff). Schleswig, the successor of Hedeby, was for a long time the link between the north of the continent and the cities and states around the Baltic. Later on the foun-

ation of Lübeck, in 1143, made it possible for Frisians and Saxons to establish trade in more ports (Roslund 2009, pp. 217 ff). With this new trade and craftsmanship influence in towns such as Malmö and Lund, together with the technological development of the pottery wheel, the younger Grey Ware started to appear as a common ceramic around 1200 AD. Mats Roslund points to the necessity of local case studies, as well as looking at a larger geographical area, in order to understand the development of tradesmen as a powerful group in the medieval society (Roslund 2009, pp. 217 ff). Studying younger Grey Ware, and especially the contexts where it first appears, conclusions could be drawn about the local user and, on a larger scale, that person's connection with the trade routes existing at the time. As I concluded when analysing the sherds from Kv. Apotekaren 4, the rim sherds put together form a type of matrix that can be used to compare corresponding material from other medieval cities (Johansson 2011) – not as a chronological typology but as a template to see whether the pottery derives from the same producers. A comparison made with the material from Schleswig presented by Lüdtkke (1985) and the sherds from Apotekaren 4 suggested that there is little compliance between



Fig. 3. Rim sherd from Kv. Gyllenkrok, Lund. Photo by E. Johansson

the material from the two cities, but a valid analysis would of course need a larger number of rim sherds from Lund, and there is a possibility that sherds from Kugeltopf vessels of older Grey Ware were included in the material from Apotekaren 4.

Discussing the city of Lund from many aspects, Stefan Larsson, points out that Lund was never a true market town, as Malmö was, even though rich and powerful people lived there, which in itself explains the presence of exotic and imported wares and artefacts (Larsson *et al.* 2006). Hypothetically, this explains the differences in the rim sherd matrix of Schleswig and Lund. The imported pottery of Lund went through Malmö, and other cities along the way, where it changed hands and got mixed up with similar pottery but from a wider region of workshops. Analysing the early younger Grey Ware from Malmö could therefore bring us closer to the producers in northern Germany.

The production of younger Grey Ware called for special knowledge, since it had to be fired slowly under controlled forms (Augustsson 1985, p. 80). The owner of a kiln also needed to be the owner of extensive lands with access to forests. The kiln especially requires firewood to fuel the firing. Since pottery is pottery, quite brittle, the normal way to freight it would be by sea (Augustsson 1985, p. 112). A 13th century source from England tells us that a quarter of the price of the pottery was meant to cover the transport (Augustsson 1985, p. 112). However, even with regard to the transport and the fuel-consuming production, pottery was cheap. Inventory lists from 16th century castles show that stoneware vessels were regarded as low-value objects (Augustsson 1985, p. 113).

Looking at the difference in presence and spread in Swedish towns and villages together with the material culture can convey a more detailed picture of the citizens' socio-eco-

conomic spheres, provided that younger Grey Ware was imported pottery. This can give us an idea of the social (and economic) value of the younger Grey Ware, which then can provide more information about medieval city life (Roslund 2009). Because it was viewed as a product, younger Grey Ware pottery was bought at markets (or situations between two people where trade occurs), and this implies an active choice made by both seller and recipient in such a socio-economic context. Also, viewed over a period of time, the change in the quantity of younger Grey Ware in cities and villages (e.g. Lund, Malmö, Kyrkheddinge, and Örja) can be seen as an indicator of changing contact with nearby towns. Younger Grey Ware can tell us something about the socio-economic dynamics existing inside trading systems and between the urban and rural spheres of medieval Scandinavia.

Finally, ICP analysis of sherds from Lund, Malmö, Ribe, Schleswig and Lübeck would give valuable information about how pottery is traded and how the trading cities link together. The hypothesis is, as mentioned, that younger Grey Ware was imported from Germany. However, we also know that apprentices from all crafts travelled, and it is possible that instead of the pottery being imported, the potters were (Botwid, K., personal communication). The absence of pottery kilns in Sweden suggests otherwise, but they may yet be found. One theory is that they were located in the monasteries (Lindahl, A., personal communication).

Summary

By analysing sherds of younger Grey Ware from Lund, reading the analyses in excavation reports, and connecting this to monographs and articles dealing with younger Grey Ware, it is clear that the current knowledge about

this pottery has not been problematized. The archaeologists that I have discussed this with have had their knowledge about younger Grey Ware rooted in their own expertise, and correctly so. But the use of terminology and dates of origin is what I question and what I want to bring up for discussion. Self-critically, I must admit that this study lacks a large amount of German material and research on it, but from a Swedish (or Scandinavian) perspective, typically three statements can be made about the topic of this article:

1. Younger Grey Ware was thrown, using a pottery wheel, not hand-coiled or made using paddle and anvil technique. My distinction between 12th-century Grey Ware (and older) and younger Grey Ware thus concerns the production technique.
2. Younger Grey Ware was introduced in Scandinavia around AD 1200. This is because it correlates with the introduction of the pottery wheel in Denmark, and the occurrence of thrown pitchers in the archaeological material.
3. Younger Grey Ware was mainly used as secondary cooking vessels in the medieval household. This is because of the small rim diameter and volume capacity.

Researching younger Grey Ware is of course work in progress, but it is exciting work. This article should be regarded as an introduction to continued research. We may hope that future excavations of rural medieval villages will yield even more information about younger Grey Ware as an aid to understanding socio-economic life during the high Middle Ages.

References

- Augustsson, J.-E. 1985. *Keramik i Halmstad ca 1322–1619. Produktion, distribution, funktion*. Hallands läns museers skriftserie 2. Lund.
- Broberg, B & Hasselmo, M. 1981. *Keramik, kammar och skor från 7 medeltida städer. Fyndstudie*.

- Medeltidsstaden 30. Stockholm.
- Brorsson, T. 2001. Tidigmedeltida anglo-skandinavisk keramik i Skåne. In Schmidt Sabo, K. (ed.), *Vem behöver en by? Kyrkheddinge, struktur och strategi under tusen år*. Riksantikvarieämbetet, Arkeologiska Undersökningar Skrifter 38. Lund.
- 2006. Spåren av tyska köpmän. In Larsson, S. (ed.), *Liljan. Om arkeologi i en del av Malmö*. Lund.
- 2007. *Medeltida keramik från Ystad – en studie av material från fyra undersökningar*. Kontoret för Keramiska Studier. Rapport 18, 2007. Vadsjö.
- Carelli, P. 2001. *En kapitalistisk anda. Kulturella förändringar i 1100-talets Danmark*. Lund Studies in Medieval Archaeology 26. Lund.
- Johansson, E. 2011. *Yngre svartgods – Datering, funktion och produktion. En materialstudie av det yngre svartgodset från Kv. Apotekaren 4, Lund*. Unpublished Master's thesis, Department of Archaeology and Ancient History, Lund University.
- Johansson, M. 2011. Keramikkärl. In Söderlund, K., *Kring Mynttorget. Gamla stan, Stockholm stad. Arkeologisk undersökning 1993–1994*, SR 1301. Stockholm.
- Jönsson, L. & Kockum, J. 2004. *Öresundsförbindelsen. Fosie by 10: rapport över arkeologisk slutundersökning*. Malmö kulturmiljö, rapport 21. Malmö.
- Kock, J. 2001. Middelalderlige pottemagerovne og pottemagerier i Danmark – en optakt. *Hikuin* 28. Moesgård.
- Krongård, H., Vellev, J. 2004. Teknik. In Roesdahl, E. (ed.), *Dagligliv i Danmarks middelalder. En arkeologisk kulturhistorie*. Aarhus.
- Larsson, S. 2000. Keramiken. In Gardelin, G. *Kv. Apotekaren 7, Lund. Arkeologisk undersökning 1999: Lunds kommun, Skåne*. Arkeologiska rapporter från Lund 23. Lund.
- Larsson, S. (ed.) 2006. *Centraliteter. Människor, strategier och landskap*. Skånska städer. Stockholm.
- Lindahl, A. 2000 The Idea of a Pot. Perception of Pottery. In Olausson, D. and Vandkilde, H. (eds.), *Form, Function & Context. Material Culture Studies in Scandinavian Archaeology*. Acta Archaeologica Lundensia, Series in 8° No. 31. Lund.
- Lüdtke, H. 1985. *Die mittelalterliche Keramik von Schleswig Ausgrabung Schild 1971–1975*. Ausgrabungen in Schleswig – Berichte und Studien 4. Neumünster.
- Madsen, P.-K. (ed.) 1999. *Middelalderkeramik fra Ribe. Byarkæologiske undersøgelser 1980–87*. Jysk Arkæologisk Selskabs skrifter, den antikvariske samlings skrifterække 2. Højbjerg.
- Rosén, C. 2004. *Stadsbor och bönder. Materiell kultur och social status i Halland från medeltid till 1700-tal*. Lund Studies in Medieval Archaeology 35 & Riksantikvarieämbetet, Arkeologiska undersökningar skrifter 1. Lund.
- Roslund, M. 2001. *Gäster i huset. Kulturell överföring mellan slaver och skandinaver 900 till 1300*. Skrifter utgivna av Vetenskapssocieteten i Lund 92. Lund.
- Roslund, M. 2009. Varuutbyte och social identitet. Alsengemmer som emblematiske stil. In Mogren, M. (ed.), *Triangulering. Historisk arkeologi vidgar fälten*. Lund Studies in Historical Archaeology 11. Lund.
- Schmidt Sabo, K. 2005. *Den medeltida byns sociala dimensioner*. Lund Studies in Historical Archaeology 1. Lund.
- Selling, D. 1955. *Wikingerzeitliche und frühmittelalterliche Keramik in Schweden*. Uppsala.
- Serra, D. 2011. Boiling/seething. *Eldrimner – A blog about Medieval and Viking Age food*. Weblog [online] 7 July. Available from: <http://eldrimner.wordpress.com/2011/07/07/boiling-seething/>. [Accessed 30 October 12].
- Vandrup-Martens, V. 1998. *Middelalderkeramik fra Kvarteret Myntet i Lund. Typologi, kronologi, proveniens och kulturelle forbindelser*. Unpublished Master's thesis in Medieval Archaeology, Aarhus University.
- Wahlöö, C. 1976. *Keramik 1000–1600 i svenska fynd*. Archaeologica Lundensia 6. Lund.

Unpublished sources

- List of finds KM 70361 Kv. Apotekaren 4 1979–1980, Kulturen, Lund.
- Anders Lindahl & Ole Stilborg 2011. Projektbeskrivning: Yngre Svartgods.

Personal communications

- Associate Professor Anders Lindahl, Laboratory of Ceramic Research, Lund University, Lund 2011.
- Ph.D. student Katarina Botwid, Seminar: *Från*

hand till hand – att föra in ickeverbal kunskap i det arkeologiska samtalet, Department of Archaeology and Ancient History, Lund University, Lund 2011.

Professional potter Åsa Ormell, director of Vallåkra Stenskärlfabrik, Vallåkra 2010.

Ph.D. student Daniel Serra, Department of Archaeology and Ancient History, Lund University, Lund 2011.

