The Scottish medieval pottery industry: a pilot study

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Introduction

Since the start of the urban development boom of the late 1970s, the opportunity for rescue excavation in Scotland's medieval burghs has resulted in a large database of information. Included amongst this is a very large assemblage of medieval pottery which has been identified as being of native origin. This identification is based on this material dominating the excavated assemblages and not matching any known imported fabric.

As already discussed in a previous paper (Hall 1996a) excavation and field-work in Scotland has had limited success when it comes to the identification and excavation of medieval kiln sites and it was for this reason that it was felt that the time was ripe for an initial survey of the subject with a view to formulating a considered project design. This pilot study will consider the existing evidence, examine possible routes of research and in targeting one specific area (the Carse of Gowrie, Perthshire) will analyse the results.

Background and current state of knowledge

The Scottish medieval pottery industry (Illus 1)

The current state of knowledge of the medieval pottery industry in Scotland is based purely on the analysis of fabrics recovered from urban excavation and kiln sites at Colstoun (Brooks 1978–80, 364–403), Stenhouse (Hall and Hunter, forthcoming), Throsk (Caldwell and Dean 1992, 1–46) and Rattray (Murray and Murray 1993, 148–69). Another suggested kiln site at Kinneill, Perth remains unproven (Stevenson and Henshall 1957, 250; Hall 1996a, 126).

The earliest native fabric that has been identified is White Gritty Ware, which is recovered from 12th-century deposits in Perth in association with imported fabrics from England, the Low Countries and Germany (Hall 1996b) and in the Borders has been dated by thermoluminescence to 1065±140 and 1175±120 AD respectively (Cox undated). The study of this fabric has largely concentrated on the identification of regional differences in vessel type, as any attempt at a sensible visual analysis of the fabrics has proved meaningless due to their similarities (Haggarty 1984; Hall 1997; Cox, undated; Crowdy 1986).

On current analysis a native Redware industry begins production in about the mid-13th century, and so far every east coast Scottish burgh from Stirling to Dornoch has produced its own version of this fabric (Appendix 1 and Illus 1). It is currently assumed that these Redware fabrics are being produced in the vicinity of each burgh rather than at one or two major east coast pottery production centres. This assumption is based on the fact that although they belong to a single tradition, each of these fabrics is slightly different in terms of surface finish and amount of inclusions. The sourcing project recently undertaken by the British Geological Survey using inductively coupled mass spectroscopy (ICPMS) has proved to be remarkably effective in identifying different chemical trace elements in the Redwares. When coupled with thin section analysis it has even enabled the identification of differences between pottery fabrics that come from the same river valley (Chenery and Philips, forthcoming). This new technique promises to help greatly in the search for kiln sites.

If major production centres were involved then these probably would be referred to in the documentary record and some physical remains would still be extant. Although it has been argued that the medieval road system in Scotland may have been better than had been previously supposed (Barrow 1984, 51), surely the transportation of large consignments of pottery over a long distance would have been less cost-effective than a local supply.

The only kiln sites excavated which may have been producing such Redware fabrics are at Sten-
house (Hall and Hunter, forthcoming) and Rattray (Murray and Murray 1993, 150). The apparent presence of a widespread Redware tradition in Scotland has led to this pilot study, and it is on this fabric type rather than the gritty wares that this paper will concentrate.

Clay sources

By using the Macaulay Institute Soil Survey map for eastern Scotland one is able to locate the position of both lacustrine and alluvial clays which will have been available for the manufacture of pottery.
in the medieval period (Soil Survey of Scotland 1982 sheet 5). There is one alluvial soil association in particular, the Stirling / Dunfermline / Pow / Cardross, which appears in the close vicinity of the burghs of Stirling, Perth, Dundee, Montrose and Elgin, and it is tempting to consider that this association may indicate a clay source that could have been utilised in the medieval period.

It has already been suggested that the lacustrine clays were used for the White Gritty industries of the Borders (Haggarty 1984) and Fife (Hall 1997, 56). These white clays appear to be more suitable for producing higher fired fabrics and it is for this reason that they were used for the gritty wares, while the iron-rich alluvial clays appear more suitable for producing fabrics that were fired at lower temperatures. The use of the two different clays may also indicate differences in kiln technology, a possibility that cannot be resolved until further sites have been located and excavated.

An example of the tantalising glimpses that can be gained of the subject can be found amongst the documentary evidence (discussed below) in an entry for 1474 in the Lord High Treasurer Accounts which says 'Item to one passand to Perth to Wil Turtle, to get him to send clay to Edinburg' (Dickson 1877, 54), unfortunately it does not specify where this clay will come from or what it will be used for!

Fuel sources

The lack of excavated kiln sites means that it is not known what they were fuelled with. It is not unlikely that some of the White Gritty kilns may have been coal fired, particularly in Lothian where the monks of Newbattle Abbey were given rights to extract coal as early as 1184 (McNeil 1902, 11). Elsewhere wood and peat would seem to have been the most likely fuel sources and their availability when also coupled with a water source may have been significant as regards site location. There is limited documentary evidence for the existence of 'peatarys' which were under monastic control (Barrow 1971, 246). Jean Le Patourel has suggested that there is evidence in England that peat was used as a fuel source for firing, and given its ready availability this may have also been the case in Scotland (Le Patourel 1968, 117).

Documentary sources

As part of this pilot study the author has searched a mixture of both ecclesiastical and secular sources specifically for references to medieval potters or potting (Appendix 2). In general it has proved very difficult to find any references to either, apart from a document of 1488 which mentions a 'Patrik Machane, potter' in a property location in the Borders (SRO GD32/21/6).

There is a particular problem of terminology in the Scottish context. An entry in the Exchequer Rolls of Scotland dated to 1380 refers to clay pots by their Latin description 'ollis lutesis' (Burnett 1880, 43). In Old Scots it would appear that the most common term for an earthenware vessel is a 'pig' (Aitken et al 1983, 494) the term 'pot (pottis)' can also be used usually with a defining adjective such as 'lame' which specifically means earthenware (Aitken et al 1983, 525). For example in 1502 an entry in the Lord High Treasurer's Accounts refers directly to money given to 'the pottair of Linlithgow for lamen potis' (Dickson 1877, 135).

The differences in terminology mean that great care must be taken when the records are being examined that the right sort of potter is being identified. It has been argued that it was more common for someone who cast bronze pots to be called a 'potter', whereas a clay potter would be called a 'pigmaker' (Caldwell 1983, 447 and MacLeod et al 1990, 302). This means that the early 16th-century references to 'pottairs' in Stirling may actually be referring to those connected with the gunmaking industry (Dickson 1877, vols 1-4).

It is, however, also likely that these 'pottairs' may have actually been making the clay moulds for the guns, as is suggested in an entry of 1508 which records payment 'for bringing of the furm (form) of the gwn fra the poteris hous to the castell' (Dickson 1877, vol IV, 116). If this is accepted then the main trade of these 'pottairs' may have been the manufacture of earthenware vessels, and therefore their houses may prove to be the locations of some of our missing kiln sites.

The absence of potters from both the Perth Guildry Book (Stavert 1993) and the burgess rolls of Dundee (pers comm, I Flett) may suggest that the industry was not located within the burgh limits. An entry in the Book of Scone refers to one of the abbey's landholdings as 'Lamepottissi' in 1452 and 'Leimpottissi' in 1585 (Smythe 1843, 181, 224). This name, when translated from Old Scots, means 'earthenware pots', the 'lame' element being Old Scots for earthenware (Aitken et al 1983, 525). A search of valuation rolls has shown that a farm, a house and garden and a piece of land were all called Limpot(t)is until 1862–63 (Valuation Rolls of the County of Perth 1857–63, A K Bell Archives, Perth). From this date onward these landholdings slowly changed their name to Parkfield, which is how they are known today (N0 1470 2502). There is no record in the local Sites and Monuments Record of any finds from this area but there would seem to be a strong case for future field-work and research if the opportunity ever arose.

Place-names with the 'potter' element do exist, but all are of 17th-century date or later, for example Potterhill in Stirling in 1615 and Potterflat in Annandale in 1670 (SRO GD124/1/691
and GD 219/23); Potterhill in Perth is known by this name from 1577 (Fittis 1885, 288). The origin of the Perth Potterhill is not known and the author has been unable to trace it back any further than the 16th century. As discussed above these late 'potter' names may indicate the presence of metal potters, and this is certainly true of the Stirling reference (pers comm, J Harrison).

Surnames with the 'potter' element also appear, for example Simon Potter of Dumbarton, who was one of those appointed to treat for the ransom of David II in 1357 (Marwick 1871, 20), however, it is not clear if this was his trade.

The Carse of Gowrie, Perthshire: a case study (Illus 2)

Introduction

It was decided to concentrate on this part of Perthshire simply because it lies in close proximity to two major medieval burghs, Perth and Dundee, and a readily available source of clay is known to exist particularly in the vicinity of Errol. This material was exploited from the late 19th century and was used for making bricks and tile at Pitfour, and is still used for bricks at Inchcoonsans. The Carse of Gowrie also contains numerous examples of clay-walled buildings which were built using the same clay source (Walker and McGregor 1996, 70).

Aerial photographic evidence (Illus 3 and 4)

The author examined the aerial photographic cover for the area around Errol specifically to see if it was possible to identify anything that might be classified as crop marks of former clay pits. On a vertical photograph taken in May 1974 a series of sub-circular features are visible to the south and south-west of Errol Park (NMR ref no 2416111). These all show up as dark ringed areas in the crop and are at least 150m in diameter. Several of these features are visible on the early editions of the Ordnance Survey where they are shown as being planted with trees and are sometimes given names, for example two of the crop marks beside Port Allen are named Murie Clay North Oval and Murie Clay South Oval. The position of these features whether planted or not is still marked on the modern Ordnance Survey Pathfinder series (OS sheet NO 22/32).

From a preliminary field visit, some of these features such as the Silvermuir Ovals (NO 2490 2180) are currently under cultivation. These distinctive features are all located around Errol on the clay source and the author wonders if they may indicate the position of early clay pits. It is tempting to wonder whether these features are the planted versions of the 'many large pools of water' which are said to have 'disfigured' the district prior to 1735 (Donaldson 1794, 34).

Brick and tile works

The clay fields around Cottown became the site of a major tile and brick works in the 1830s. The local landlord Sir John Stewart Richardson had recognised the need for efficiently draining his farmlands in order to be able to increase his farm yields. Finding that the cost of transporting tile from other parts of Scotland was very prohibitive he began to make tiles from the clay on his own land from 1837–38 (Lenman and Gauldie 1969, 340). This developed into a major tile and brick factory until 1912 when it was bought out by a
rival, one Alexander Bell, who had his own manufactory at Inchcoonans (to the north of Errol). There is absolutely no evidence that this clay was being exploited at a much earlier period although there is a tantalising reference to 'the flooded remains of very early clay excavation on the site' which apparently pre-date any works by the tile and brick factories (Lenman and Gauldie 1969, 352). In passing it is worth pointing out that recent field-walking by TAPAC in the vicinity of another former tile works at Marlehall near Newmill, Perthshire (NO 0880 3220) located sherds of medieval Redware pottery (pers comm, F Stewart).

Conclusions

The apparent absence of references to potters in the 13th and 14th centuries in the documentary record for Scotland is surprising as this surely must have been a major industry for several hundred years. Admittedly this may be due to the destruction of relevant documents either by invading English armies or the Reformers but one would have expected something to survive. Part of the problem may be due to the fact that the potters were never part of the burgh guildry and carried out their trade beyond the burgh limits. It is a point of some interest that the medieval trade that
is best represented in the archaeological record may have been considered so lowly that it is virtually invisible in the historical record.

It has been suggested that it was the advent of new monasticism from the continent in 12th-century Scotland that may have promoted the foundation of a Scottish pottery industry (Haggarty 1984, 395). This is worth further exploration particularly when one notes the proximity of 12th-century monastic foundations to those burghs which have produced Redware fabrics (listed in Appendix 1).

One of the first things to do is to define exactly where a kiln site would be and what surface finds might be recovered to identify it. A combination of workable clay, water and fuel supply and adequate means of transport (either by road or water) are the four governing factors for site location. At least two of the features located on aerial photographs in the Carse of Gowrie match these definitions on all counts.

One would assume that the most obvious surface indicator of a kiln site would be pottery wasters from misfirings in the kiln. However, from a cursory search of three Sites and Monument Records from Perth and Kinross, Stirlingshire and the Scottish Borders the only pottery finds listed are all stray finds of sherds. Maybe one should be searching for large groups of pottery from rural locations that cannot be explained away by the manuring of the field; one such assemblage exists from the Low Parks in Hamilton but on recent examination by the author proved to contain no obvious kiln waste (Dennison and Coleman 1996, 75).

As with much rural medieval archaeology in Scotland, it is only by undertaking some closely targeted field-work that the questions will start to be answered. The first part of the problem is hopefully in the process of being answered through the
work currently being undertaken by the British Geological Survey on clay sourcing. If this confirms that the Carse clays described above could have been used to make the Redwares found in Perth and Dundee then this will allow the targeting of some of the sites discussed.

Recommendations for further work

1) Further detailed study of the documentary evidence to confirm that there are no early references to potters or potting.
2) A programme of intensive field-walking of the identified crop marks in the Carse of Gowrie to see if it is possible to identify that they actually relate to clay extraction at all.
3) Field-walking of the lands of Parkfield (formerly Limepotts) Farm near Scone may also prove productive.
4) The two excavated kiln sites at Colstoun and Stenhouse will also repay some further investigation and research. The Stenhouse archive is on the point of being assessed and this will hopefully lead to full publication of this important Redware production site. The Colstoun material has been published but this only really concentrated on the pottery assemblage and very little was said about the kilns or the evidence for how they were fired (Brooks 1978–80). Full publication of the Colstoun excavations would be of great benefit to future research. An initial assessment of what exists in the way of excavation records and drawings for Colstoun would seem to be the first step.

Even from this limited amount of research it is clear that once the various pitfalls of terminology and apparent absence of record have been overcome there is a route to formulating a workable project design.

Acknowledgements

The author would like to thank the following people for their help and interest in this project: Lorna Main (Stirling Council archaeologist), Mark Hall (Archaeologist, Perth Museum and Art Gallery), Ian Flett (Dundee City Council Archivist), John Dent (Scottish Borders archaeologist), Lisbeth Thoms (Newgrange Heritage Services), George Haggarty, Steve Connolly (Perth and Kinross Council archivist), Jo Pattle (Perth and Kinross Council Archive assistant), Jeremy Duncan (Local Studies Librarian, AK Bell Library) and Hugh Hagan (Scottish Record Office).

This report was entirely funded by Historic Scotland.

Appendix 1

Redware fabrics currently identified from excavation

Orkney

Reddish or buff sandy fabric (possibly imported from the mainland?).

Dornoch

Red-brown, hard, micaceous and gritty with external purple wash.

Portmahomack

Tarbet (from excavations by M Carver in 1996 seen by D Hall).

Inverness

Orange-brown, moderate, sandy and micaceous fabric.

Forres

Orange-red to brown, moderate, sandy with abundant mica, external purple wash.
88–94 High Street (Scottish Urban Archaeological Trust unpublished evaluation report)
Royanville, Gordon Street (Scottish Urban Archaeological Trust unpublished evaluation report).

Elgin

Orange-red to buff, moderate, sandy and micaceous fabric.
Relief Road excavations 1970s (Lindsay, forthcoming);
Ladysill 1972 (Hall and MacDonald, forthcoming); St Giles Centre 1988 (Hall, forthcoming); Scottish Urban Archaeological Trust excavations 1990s.

Cullykhan

Reddish, hard, gritty often reduced with grey core.

Banff

Light brown, hard, gritty and micaceous.

Rattray

Buff-pink, sandy and slightly micaceous with well-sorted quartz grits.
Aberdeen

Inverurie
Red brown, moderate to hard, gritty with abundant mica with external purple wash.


Montrose
Red brown, hard, sandy, micaceous with external purple wash.


Brechin

Forfar
Orange-red, moderate, sandy and micaceous with external purple wash.


Arbroath
Red brown, hard, sandy and micaceous with external purple wash.


Dundee
Red brown, moderate, sandy and micaceous with external purple wash.


Perth
Red brown, moderate to hard, sandy and micaceous with external purple wash.


Stirling
Red-brown with a grey core, moderate, sandy and micaceous with external purple wash.

Broad Street (Hall, D W ‘The pottery’ in MacKenzie, J ‘Archaeological excavations at Broad Street, Stirling’ Scottish Urban Archaeological Trust unpublished excavation report); (Hall, D W ‘Medieval and post-medieval pottery’ in Hall, D W and Smith, C ‘Medieval and post-medieval pottery and animal bone from Stirling’ Scottish Urban Archaeological Trust unpublished report for Central Regional Council).

Stenhouse

Appendix 2
Documentary sources consulted
Rentale Dunkeldense
Rental Books of the Cistercian Abbey of Coupar Angus
Perth Guildry Book
King James VI Rental Books
Accounts of the Lord High Treasurer of Scotland vols I-IV
Registrum Magni Sigilli Regnum Scottorum
A Dictionary of the Older Scottish Tongue
Social Life in Scotland
Accounts of the Masters of Works vol 1 1529–1615 ed H Paton (HMSO Edinburgh 1957)
Gifts and Depositions in Scottish Record Office
Liber Ecclesie de Scon
Valuation Rolls for the County of Perth 1857–1880, A K Bell Archives
Stenhouse unpublished excavations
Cox undated

Cartographic sources consulted
General Roy 1755 Military map of Scotland
Stobie, J 1780 The Counties of Perth and Clackmannan
Ordnance Survey of Scotland 1863
Ordnance Survey of Scotland 1901
Soil Survey of Scotland Sheet no 5 Eastern Scotland, Macaulay Institute of Soil Research, Aberdeen
Ordnance Survey Pathfinder sheet NO 22/32 Carse of Gowrie and Balmerino

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Smythe, W  1833  *Liber Ecclesie de Scone*.
SRO (Scottish Record Office) GD/32/21/6  'Procuratory by James Elmer of that ilk....'
SRO GD/124/1/691  'Instrument of resignation and sasine by Thomas Windregaiti....'
SRO GD 219/23  '12 rooods in Potterflattis....'
SRO GD 190/3/30  Papers relating to the estate and lands of Potterhill.

This paper is published with the aid of a grant from Historic Scotland.

Abstract

The evidence for pottery production in medieval Scotland is assessed both from a documentary and fieldwork point of view. A case study of the Carse of Gowrie, Perthshire assesses the evidence for pottery production in that area. Several avenues for further research are recommended.

Keywords: Redware, White Gritty Ware, Colstoun, Stenhouse, Rattray, Errol, kiln