A possible Neolithic settlement at Milton of Leys, Inverness

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with contributions by M Hastie & C R Wickham-Jones

ABSTRACT

Excavations by Headland Archaeology identified a cluster of small pits and post-holes at Milton of Leys, Inverness, Highland Council. Neolithic Grooved Ware, including one vessel in the Durrington Walls sub-style, was recovered from several of the features, which appear to be domestic in function. At present, this is the most northerly example of pottery in the Durrington Walls sub-style. Furthermore, radiocarbon dating has determined that this vessel dates to the second half of the fourth millennium BC, which is one of the earliest dates anywhere in Britain for this style. Milton of Leys is the latest of a number of small Neolithic settlement sites to have been discovered in the Inverness area, where none was previously known. These findings highlight the fact that our picture of the distribution and dating of such pottery and sites reflects accidental discovery during archaeological work and that these sites are very difficult to detect. The project was funded by Tulloch Homes Ltd.

INTRODUCTION

Located on hills overlooking the south-east of Inverness, Milton of Leys is a substantial housing development centred on a former farmstead of the same name (illus 1). It is situated in an area with several known archaeological sites – immediately to the south lies Bogbain Wood, where there are several upstanding hut circles and a prehistoric field system (Driscoll 1989) while to the east is the chambered cairn at Druidtemple. Evaluation in advance of this development (Duncan 1999) identified several undated archaeological features, which merited further work. At the south-eastern limit of the development (NGR: NH 698 416 at 185m OD), a hearth was identified and further work by Headland Archaeology identified several small pits and hearths, several of which contained Neolithic Grooved Ware pottery, including some in the Durrington Walls sub-style. Radiocarbon dates for material found in association with the pottery place these vessels among the earliest known examples of this style. A small burn runs near the western limit of the site. The underlying geology is sand and gravel.

The site archive will be deposited in the National Monuments Record of Scotland and the artefacts have been allocated to Inverness Art Gallery and Museum.

EXCAVATION

The work was undertaken in three phases. Initially, the area immediately surrounding the evaluation trench was stripped of topsoil using a machine. The natural subsoil was then hand-cleaned and several more features identified and recorded. In all, an
ILLUS 1  Location of site and evaluation trenches (Based on the Ordnance Survey map © Crown copyright)
Excavated features and distribution of artefacts

area of 2000 sq m was stripped, the limits of which were defined to the north-west by an existing high voltage cable running alongside the road, to the north-east by the apparent limit of archaeology as defined by intensive trenching, and to the south-east and south-west by the edge of the development.

NEOLITHIC FEATURES

Of the 35 features identified, it is likely that 22, including those identified by GUARD, were broadly contemporary and date to the Neolithic (illus 2). For the most part, these were sub-circular on plan, up to 0.5m in diameter and no more than 0.13m deep (illus 3). Generally, the features were filled with dark greyish-brown silty sand and some contained abundant charcoal.

Although six features were identified as definite post-holes, and a further five as possible post-holes, no coherent structures could be identified. However, there was a distinct cluster of features (Pits 21,
22 & 27), all with charcoal rich fills, from which the majority of the artefacts was recovered. These lay immediately adjacent to Hearth 24, which exhibited signs of in situ burning, consistent with its being used as a hearth and the probable source of the burnt material in the surrounding features. Fragments of seven pottery vessels were recovered from these three features, including one vessel in the Durrington Walls Grooved Ware sub-style. The concentration of finds in these features suggests that they were the focus of domestic activity on the site and that they may have lain within a structure that has not survived in a recognizable form. Fragments of an eighth vessel were recovered from a small scoop (219) to the south-west.

The distribution of lithics on the site contrasted greatly with that of pottery. In only one case (Pit 22) were flakes found alongside pottery (illus 2). With only one exception, the rest of the worked flint was recovered from two pits (214 & 217), well away from the putative structure.

Two further hearths (13 & 16) were excavated, but these were relatively isolated and no artefacts were found in association with them. Near the site’s southern corner lay a small pit/post-hole (211), which contained abundant charcoal, including large quantities of hazelnut shell.

ENVIRONMENTAL EVIDENCE

M Hastie

Bone preservation on site was very poor and there was no waterlogging. Consequently, environmental evidence was limited to charred plant remains, with most samples yielding small quantities of charcoal. These are most significant as sources of dating. A full environmental report is incorporated into the site archive.

Fragments of hazelnut shell were recovered from 11 of the 17 samples, with notable concentrations in Hearth 13 and Pits 21, 27, 211 and 217. This substantial quantity suggests that hazelnuts were being gathered for food, rather than being brought in accidentally with fuel. Charred cereal grain, naked barley (*Hordeum vulgare var nudum*) and oat (*Avena sp*), was present in only three features and in no case did the assemblage from any one feature amount to more than one grain of each. Consequently, they are unlikely to relate specifically to the function of any of the features.

RECENT AGRICULTURAL FEATURES

A steep-sided gully, orientated south-west/north-east, ran across the site (see illus 2). This was filled with dark brown silty sand. No definitive dating evidence was recovered from this feature but it is likely that it post-dates the features described above, as neither respects the other. Furthermore, no similar features have been identified on contemporary sites in the area. The fact that it appears to be aligned with a field boundary on the opposite side of the burn suggests that this linear feature is post-medieval in date. The single debitage flake recovered from this feature is almost certainly residual. The site was also crossed by shallow plough scars. These were slightly curving, parallel and regularly spaced, typical of post-medieval plough scars. Modern pottery was recovered from one. Two stone-filled pits could not be dated, but are likely to be the result of post-medieval land improvement. While the underlying subsoil was predominantly sand and gravel, there were two areas of coarse gravel, which were noticeably devoid of features. This distribution may reflect the difficulty of digging into coarse gravel.

RADIOCARBON DATES

Four samples were selected for AMS dating. These were taken from Pits 21, 211 and 217 (GU-9611, GU-9613 & GU-9612 respectively) and Hearth 24 (GU-9610). These were measured at the University
Radiocarbon dates
Calibrated age ranges are based on OxCal v3.9.

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<th>δC13</th>
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of Arizona AMS Facility. The results are presented in Table 1.

THE POTTERY

Ann MacSween

The pottery (illus 4) from Milton of Leys comprises about 50 sherds and 30 small fragments from eight vessels. Apart from two decorated body sherds (V5) from Pit 219, all the sherds are from the group of pits in the eastern corner of the site – two vessels (V1 & V2) from Pit 21, three vessels (V3, V4 & V8) from Pit 22, and two vessels (V6 & V7) from Pit 27.

SUMMARY BY CONTEXT

Pit 21 By far the largest amount of pottery from the excavations (756g) relates to V1. The sherds are from the upper part of a large barrel or bucket-shaped vessel with a slightly inverted rim. The exterior surface is divided into panels by pinched cordons. Just below the lip are two parallel incised lines, which form a border around the top of the vessel. The flat bevel of the rim is decorated with impressed triangular decoration. The sherds from the other vessel (V2) from Pit 21 are undecorated body sherds, of a similar fabric to V1, but thinner.

Pit 22 Two of the vessels from Pit 22 (V3 & V4) are again represented by undecorated body sherds. The remaining pottery (V8) from this pit was recovered during sample processing and is quite abraded. One sherd is from a slightly flaring rim.

Pit 27 The pottery from Pit 27 (V6 & V7) represents two decorated vessels, one (V6) decorated on the exterior with horizontal fingernail impressions, the other (V7) apparently having oblique stabs forming parallel lines of decoration.

Pit 219 Sherds from one vessel (V5) were recovered from this shallow scoop. They are decorated on the exterior with stab-and-drag decoration and on the interior with horizontal and crossing parallel lines of impressed twisted cord decoration.

SUMMARY BY VESSEL

V1 Context 36, fill of Pit 21 (3 rims, 17 body sherds, 6 fragments); Context 36, SF2 (12 body sherds); Context 36, SF3 (4 body sherds, 1 fragment). Sherds from rim and upper body of coil-built, bucket-shaped vessel. Rim has interior bevel decorated with triangular impressions. Exterior surface smoothed and decorated with vertical lines of pinched decoration; the panels between are undecorated. Fabric fine sandy clay with c 10% crushed rock fragments (white), which has fired hard and is incompletely oxidized (brown with a grey core). Some sherds have an internal residue. Th 12mm; Wt 756g

V5 Context 218, fill of Pit 219. Two body sherds, smoothed on exterior and decorated with stab-and-drag decoration. Interior of one from neck of vessel, decorated with impressed twisted cord; two parallel lines with parallel lines of crossing decoration above. Fabric sandy clay with c 30% of mixed rock fragments, fired hard and reduced (grey) with oxidized exterior margin (brown). Interior surface has light sooting and patches of residue. Th 10mm; Wt 30g
V6  Context 47, fill of Pit 27 (SF4). Three body sherds. Exterior surface smoothed and decorated with horizontal fingernail impressions. Fabric fine sandy clay with c 30% of mixed rock fragments, fired hard and is reduced (black) with oxidized exterior margin (brown). Interior surface has sooting and patches of residue; light sooting on the exterior. Th 11mm; Wt 113g
V7  Context 46, fill of Pit 27 (Rt). 62g of pottery, abraded from sieving but including rim (body sherds may be from the same vessel). Rim has slight interior bevel. Abraded traces of decoration on exterior, possibly oblique stabs forming parallel lines. Fabric fine sandy clay with c 10% of rock fragments (white), fired hard, oxidized (red). Th 10mm; Wt 62g

V8  Context 37, fill of Pit 22. Pottery from sieving, including two rims. One is very small – form could not be determined. Other is from undecorated vessel with slightly flared lip. Fabric is fine sandy clay with c 20% of mixed rock fragments, fired hard, oxidized (brown). Th 8mm; Wt 41g

THE FLAKED STONE

C R Wickham-Jones

SUMMARY OF ASSEMBLAGE

A total of 118 pieces of flaked stone was recovered from the excavations at Milton of Leys. A full catalogue is presented in the site archive. With one exception, all are flint and are probably local gravel flint. The exception is number 10, which is a tiny debitage flake of quartz. The bulk of the assemblage (107 pieces) comprises very small debitage flakes identified during the sorting of the retents from flotation. The assemblage comprises five regular flakes and 112 debitage flakes. The regular flakes would all have been suitable for use, though no use-wear study was done to investigate whether or not they had been used, and all are broken. The debitage flakes have all come from the manufacture of flint tools, from both primary and secondary knapping, as well as possible tool maintenance. Many of the pieces are severely burnt (experimental work shows only the most heavily burnt flint flakes have macroscopic evidence of burning). These are found in all lithic-bearing contexts, with the exception of Context 231, which contained one probably residual piece.

In addition to the pieces recovered from the current site, a fine horseshoe scraper (no 12) recovered during the evaluation is published here. This was recovered from topsoil in an evaluation trench located 730m to the north-west (NGR: NH 6933 4220) of the current site (Halliday 2000, 4). It is made on a chunky cortical flake and has fine parallel retouch running steeply up three sides. The edge is still very fresh, but is slightly undercut by damage scars along most of its length and there is a hint of macroscopic polish on the ventral surface. All of these features suggest that it may have been used, although this is unclear, as this piece has been severely burned. Fine horseshoe scrapers of this style tend to date to the later Neolithic period.

The lithic assemblage makes use of local raw materials and contains evidence for the manufacture, use and probable repair of stone tools in the vicinity of the site. The small size of this assemblage means that there is little further detail to be obtained. The assemblage comes from several contexts and, while it could feasibly be derived from a single stone-using episode, there is no specific evidence to relate the pieces from one context to those from another. Until such evidence is available, no firm conclusions can be drawn about definite periods of use of the local flint.

DISCUSSION

GROOVED WARE

A MacSween

The similarities in fabric types suggest that the pottery could be from one assemblage, but too little remains of the vessels, apart from V1, to allow a positive identification. Vessel 1 is a Neolithic Grooved Ware vessel in the Durrington Walls sub-style, which is one of the four sub-styles identified by Wainwright & Longworth (1971, 240–2). Among the features that characterize this sub-style are bucket-shaped vessels with inverted rims, internally-bevelled rims and sub-division of the body by vertical plain or decorated cordons. While it has been suggested (MacSween 1995) that the wholesale adoption of these sub-styles to describe the Scottish material over-simplifies the picture, their use is convenient shorthand when discussing comparative material. The Milton of Leys pottery is important in the study of Grooved Ware pottery in that it extends the distribution of the Durrington Walls sub-style north into the Scottish Highlands, and also because its date is among the earliest for this style of pottery anywhere in Britain.
Thirty years ago when Wainwright & Longworth (1971) published their gazetteer of Grooved Ware sites in Scotland, only two sites were listed for the Scottish Highlands – Fresswick Sands, Caithness and the Ord, Sutherland (the latter has since been discounted as Grooved Ware, see Longworth & Cleal 1999, 206). Since then, Grooved Ware pottery has been recovered from two sites in Inverness – Stoneyfield, Raigmore (Simpson 1996; 1999) and the Northern Constabulary Headquarters site (Kenworthy 1997). Finds from other areas, such as Angus and Shetland, allowed Cowie and MacSween (1999, 54) in their review of Grooved Ware in Scotland, to conclude that:

the long-standing gaps in the picture are beginning to fill. Several of the gaps are almost certainly more apparent than real, and must simply reflect the absence of excavation.

Milton of Leys adds another site to the distribution of Grooved Ware in the Inverness area.

Milton of Leys Vessel 1 and the other decorated sherds in the assemblage would not be out of place in a Durrington Walls assemblage. Durrington Walls style pottery is not common in Scotland, with the only other definite examples being from further south – Hillend in South Lanarkshire (Armit et al 1994), Wellbrae in South Lanarkshire (Alexander & Armit 1992) and Littleour in Perth & Kinross (Barclay & Maxwell 1998). One of the vessels from Littleour, with its pinched cordons, undecorated panels, incised decoration below the rim and impressed decoration on the rim bevel, bears closest overall similarities to the Milton of Leys vessel (Sheridan 1998, 64, illus 50, pot 2).

As with the material from Littleour and many other Grooved Ware sites (see Cowie & MacSween 1999, 53 for a summary of the Scottish material), the vessels from Milton of Leys may have been ‘broken deliberately and deposited incomplete . . . [suggesting] . . . deliberate burial following a single event (eg a ceremony)’ (Sheridan 1998, 67). It should however be noted that the context of the Milton of Leys pottery is quite different from that at Littleour which was recovered from a sizeable pit within a (probably unroofed) post-built structure (Barclay & Maxwell 1998, 58).

Ashmore (1998, 145) in his analysis of the available dates for Scottish Grooved Ware, concluded that Barnhouse and Skara Brae on Orkney were roughly contemporary and were settled from possibly as early as 3400 cal BC but more likely from after 3100 cal BC, indicating a north British origin for at least some of the Grooved Ware styles. For southern England, Garwood (1999, 152) has argued from detailed analysis of the available radiocarbon dates that the overall currency of the Grooved Ware tradition in that area is 3000–2000 BC. The Durrington Walls style spans the whole period of currency of Grooved Ware in southern England (Garwood 1995, 157), while dates for Yorkshire indicate its use from the early to middle third millennium cal BC (Manby 1995, 68–9). Dates have been obtained for two of the Scottish sites, Hillend and Littleour. There is a single date of 3340–2890 cal BC (2 sigma) for the Hillend material (Armit et al 1994, 118) and a range of dates centred on the second half of the third millennium BC for the Littleour material (Barclay & Maxwell 1998, 59; Sheridan 1998, 67–8). This indicates that, as in southern England, the Durrington Walls sub-style had a long currency. The date of 3360–2920 cal BC (2 sigma) for the material from the pit containing V1 at Milton of Leys adds another date to the earlier end of this span, putting it alongside the Hillend date as ‘amongst the earliest associated specifically with the Durrington Walls sub-style’ (Armit et al 1994, 124).

The Milton of Leys pottery highlights the importance of the collection of archaeological material specifically to date Neolithic pottery, and the contribution that can be made by the dating of plough-truncated features even though these may be difficult to interpret from a structural standpoint. Only by obtaining
In the absence of large quantities of finds, the pottery, flint, and hazelnut shells recovered from Milton of Leys appear to be the remnants of a small Neolithic settlement. Given the shallow depth of the features and the plough-marks crossing the site, it is evident that all features have been plough-truncated and only the deepest features survive. Consequently, no actual structures could be identified, but the clustering of features around Hearth 24 suggests that there was at least one building on the site, perhaps with further structures or palisades around it, as may have surrounded the site at Castlehill (see below). The form that such structures may have taken is open to debate. That found at Stoneyfield (see below) was underneath a burial cairn and therefore is unlikely to have had a domestic function and may not even have been roofed. Perhaps the most likely parallel can be found at Kinbeachie in the Black Isle, where a rectangular building measuring 7x4m has been identified. This site was also plough-truncated and nothing but the bases of the post-holes survived (Barclay et al 2001).

Almost all the pottery recovered during the excavation came from the three pits in this cluster, but nearly all the flint came from two pits/post-holes to the south-west. Based on the differential distribution of pottery and flint, it is easy to imagine the cluster of pits around Hearth 24 being the focus for indoor domestic activity, with flint-working taking place in an area outside the building, where the light was better and where the sharp debris would be less of a nuisance. The two post-holes that yielded most of the flint may be the sole remnants of a shelter.

The presence of Neolithic pottery in small pits is often interpreted as being the result of ritualized deposition. However, in the case of the pottery from Milton of Leys there is no evidence to support this interpretation. While the pottery may have been deposited in a structured fashion, it may equally well have been deposited entirely randomly, albeit within the structuring principles of everyday life. In particular, the presence of a mixture of abraded and freshly broken pottery in Pit 22 would appear to be evidence against pots having been deliberately broken and deposited incomplete in a single ‘ritual’ deposit. Furthermore, any arguments for ritualized deposition based on the incompleteness of the vessels overlooked the fact that the features themselves are incomplete, as they have been truncated by ploughing.

Clearly, the occupants of the site were exploiting local resources, as the plentiful quantities of charred hazelnut shell testify. The charred cereal grain is of insufficient quantity and quality to indicate whether it was the result of cereal processing or consumption.

The lack of intercutting features suggests that the settlement was not reworked during its occupation and may have been relatively short-lived. However, this is not to say that it was temporary. Earth-fast buildings can stand for considerable periods and leave little trace in the subsoil. The absence of large quantities of artefacts and general debris may be the result of waste having been disposed of slightly away from the settlement itself and the removal of surfaces by ploughing. Any conclusions based on the paucity of finds must be accompanied by the further qualification that flint and pottery are only two of the materials available to Neolithic people. Artefacts in organic material, such as wood, leather, bone and antler, simply will not survive, hence (potentially) removing a vast array of artefacts from the archaeological record.
BROADER CONTEXT AND ARCHAEOLOGICAL INVISIBILITY

Until the 1990s, the only Neolithic sites in the Inverness region were highly visible monuments, such as the cairns at Druidtemple and Stoneyfield, the latter excavated in 1972–3 in advance of road building (Simpson 1996). However, Milton of Leys is typical of a series of Neolithic sites to have been discovered in recent years in a relatively small area to the south and south-east of Inverness. Other examples have been found at the Northern Constabulary Headquarters (Kenworthy 1997), Castlehill (Roy 2000) and Southern Distributor Road (Ian Suddaby, pers com) (illus 1).

Of these sites, the most directly comparable to Milton of Leys is that at Castlehill (NGR: NH 697 440). Like Milton of Leys, Castlehill was identified during an archaeological evaluation and subsequently excavated. The focus of the site was a small knoll where, ‘There may have been a temporary structure... perhaps centred on a hearth pit and various storage pits’ (Roy 2000). A single undecorated sherd of probable Neolithic pottery was recovered and two radiocarbon dates were procured (3360–3030 cal BC (AA-39810/GU-9141) & 3520–3100 cal BC (AA-39809/GU-9092)). These indicate that the site was contemporary with Milton of Leys.

At only one site in the area have the excavated features formed a recognizable structure. At Stoneyfield, a rectangular post-hole structure (dating to 2873–2298 cal BC) was sealed under the cairn. Whether this was domestic in function or even roofed is the subject of debate, but what is clear is that the post-holes excavated here had been protected from the effects of ploughing and were no more than 0.26m in depth. This goes some way to explaining the absence of recognizable structures from other excavated sites.

Milton of Leys and Castlehill illustrate the reasons for the apparent absence of Neolithic settlements from the archaeological record of the Inverness area. They are composed of small features that are invisible on the ground surface and, to the untrained eye, unremarkable if exposed during quarrying or other works. They are not visible as cropmarks, and their size and the geology of the area render them imperceptible by geophysical survey. The dearth of finds on these sites means that when they are ploughed there is little to produce a tell-tale artefact scatter on the surface. Furthermore, the small artefact assemblages associated with these sites have been heavily biased towards pottery, which degrades rapidly when exposed and is easily overlooked by the casual observer. Indeed, with the exception of a polished stone axe (NMRS: NH64SE 18), the National Monuments Record of Scotland has recorded no chance finds of Neolithic material in the south-east Inverness area and, where field-walking projects have been undertaken, the prehistoric finds assemblages have been dominated by flint (NMRS: NH64NE 106 & NH74NW 79). The one way that these sites can manifest themselves on the surface is as charcoal spreads following ploughing. Such spreads are unlikely to be noted unless specifically looked for (Barclay et al 2001).

Consequently, no Neolithic settlement sites, with the possible exception of the post-hole structure under the cairn at Stoneyfield, were known in the Inverness area until the 1990s when the advent of National Planning Policy Guideline 5 in 1994 caused a huge increase in what may be termed archaeological prospecting; deliberate attempts to identify completely unknown sites. It is probable, therefore, that as Inverness continues to expand and further archaeological work is undertaken, the previously isolated ritual monuments of the Neolithic will be set into the context of a populated landscape.

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Murray. Mhairi Hastie carried out the environmental assessment and oversaw the submission of samples for radiocarbon dating. The project was managed by Russel Coleman. John Wood and Dorothy Lowe of Highland Council Archaeology Unit provided curatorial input. Plant was provided by Tulloch Plant Ltd.

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