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ARO41: The road to rediscovery: Netherton Cross during the M8, M73, M74 Motorway Improvements 2014-15

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Summary

As part of the Motorway Improvements proposed for the M8, M73 and M74, Transport Scotland and its consultants commissioned GUARD Archaeology to undertake archaeological mitigation works ahead of the construction. This involved the trial trench evaluation of areas outside the road verge, and monitoring of topsoil stripping in some areas including between Junction 5 and 6 of the southbound M74. Here, the Netherton Cross stone once stood - a tenth century cross in the style of the Govan stones, and across the M74 lay the Low Park Motte Scheduled Monument. Both were evidence of historic use of this area east of Glasgow in the early centuries of the last millennium. The stone cross was moved from this location to protect it in the early twentieth century, some years later being erected at Hamilton parish church where it still stands today. In the area where the cross once stood is a marker stone and close by the remains of four medieval structures were discovered along with pottery, gaming pieces and other objects. Remarkably, these remains survived, literally on the edge of the existing hard shoulder of the M74, with some remains extending southwest underneath the road foundations. Although other disparate archaeological features were discovered elsewhere during the improvement works, this publication focuses primarily on the more significant findings around the Netherton Cross location.

Introduction

From April 2014 to October 2015 GUARD Archaeology Ltd undertook a programme of archaeological watching briefs and evaluations across the M8/M73/M74 Motorway Improvements Project. The archaeological investigation related to the construction work and its impact on any cultural heritage and sites of archaeological interest deemed to be adversely affected by the improvement works along areas of the three motorways.

In consultation with the clients, Transport Scotland and Historic Environment Scotland (HES) previously Historic Scotland, an evaluation of 220 trial trenches took place to locate any significant archaeological remains, and walkover surveys were conducted prior to groundwork commencing to examine archaeological potential. In areas of higher archaeological possibility, such as east of Bankhead Farm and Netherton, a full watching brief on the topsoil/overburden removal was employed.

The watching briefs, evaluations, periodic site visits and walkovers took place between April 2014 and July 2015. The excavation of main areas of archaeological interest took place between July and October 2015. It was clear during monitoring work that the survival of archaeological features over large areas of the improvement works was relatively low. Emphasis was therefore placed on the evaluation of areas distant from the original road construction.

Despite the considerable level of disturbance from the original construction of the M8/M73/M74 motorways archaeological features were uncovered and investigated at Bargeddie, Shawhead East and Netherton. Netherton was originally seen as not requiring any archaeological works due to much of it being within the road verge, and it had not been highlighted by the cultural heritage study. During the works the fact was raised that the Netherton Cross was in the vicinity, as well as the Scheduled Low Parks Motte across the motorway, and both suggested at least some potential for archaeological remains. It was agreed for the archaeologists to monitor a 200 m stretch leading up to and past the cross marker.

While the archaeology at Bargeddie and Shawhead East consisted of undated activity in the form of pits and postholes at Netherton substantial medieval and post-medieval remains were uncovered within the vicinity of the historic location of the Netherton Cross; an early Christian cross dating to the tenth century and with carvings attributed to the 'Govan school' style.

The presence of structures there are consistent with contemporary accounts of the settlement prior to the continued development of the landscape under the Dukes of Hamilton in the eighteenth century. In total, four structures were excavated producing a significant volume of late medieval and post-medieval pottery sherds, a small assemblage of coins, clay tobacco pipe





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Figure 1: Site location showing areas of evaluation.



fragments, degraded animal bone, together with a small volume of iron slag, potentially indicating rural iron smelting and blacksmithing. One deposit within Structure 4 contained a collection of domestic objects and an iron dagger SF 206. The significance of this assemblage as a possible ritual foundation deposit within a post-medieval setting will be discussed in further detail.

Site Location and Description

The archaeological investigation of the M8/M73/M74 Motorway Improvement covered an extensive area around the southern parts of Glasgow (Mooney 2018). Brief reference will be made to the sites of Bargeddie (NGR: NS 6968 6430), Shawhead East (NGR: NS 73402 62257), and also Carnbroe (see Clay Pipes, below) but the focus of this discussion will be the medieval remains at Netherton Cross (NGR: NS 72639 56879) (Figure 1).

The landscape of Netherton Cross has changed considerably over the last 50 years with the construction of the M74 motorway to its southwest, and the development of Strathclyde Country Park and Strathclyde Loch to its northeast. The excavated landscape at the site of the Netherton Cross existed as a stretch of verge lying next to southbound M74 carriageway between Junctions 5 and 6 (Figure 1). The site is situated on a level river terrace at around 20 m OD, which before the post-1960 modernisation, was elevated above a meander of the River Clyde and floodplains known as 'haugh-land'. The site formed part of a medieval landscape with an early twelfth century motte and bailey located to the south and a fifteenth century collegiate church, believed to be the location of the earlier medieval church.

Archaeological Background

The Hamilton Low Parks motte stands across the M74 from the Netherton watching brief area and is a scheduled monument (HES: SM10726), which comprises the remains of a medieval motte and bailey castle, surviving as substantial earthworks and as buried archaeology, together with an area enclosing

the outer defences. The site is located 160 m south-west of a crossing on the Clyde, although the setting is now divorced from the river by the motorway. The flat-topped motte is situated in a slight rise at 25 m OD. Its maximum height is 3 m, while the diameter of its top is c. 18 m. The summit is accessed from a small bailey, which is stepped down on the east side. A ditch would have enclosed the earthwork although there is no surface trace of this now as the site is currently under dense vegetation. The motte is believed to have formed part of an early medieval demesne of the kings of Strathclyde (Waddell 1918, 247-8). Until 1921, the eleventh century Netherton Cross stood some 60 m north of the motte, and the area between the two has long been considered to be the old toun of Cadzow (the original name for Hamilton)(see Cross below). The motte is likely to be the documented royal residence in which both David I (1124-53) and Alexander III (1249-86) held court. The ambiguous later medieval history of the area is discussed by Cross (below, 33).

Netherton Cross is situated in a prominent location along a major routeway to Bothwell Bridge (Hothersall 2007, 99) as well as near a fording point eastwards across the River Clyde, making it highly visible within its surrounding medieval landscape. In 1679 Bothwell Bridge was the location of a battle which saw the end of the Covenanter rebellion in Scotland (HES, BTL 5). Given the battle site is little more than 1 km away from the settlement at Netherton, it is very possible the community was affected by the conflict, either suffering damage to property or as witness to the rout of the Covenanter forces.

The Excavation

By Kevin Mooney

Two sites Bargeddie and Shawhead East, in addition to Netherton Cross, were subject to archaeological excavation because of the remains encountered during the evaluation. Due to the paucity of evidence from the former two sites, this description primarily focuses on the more substantial medieval and post-medieval remains at Netherton Cross.



Netherton Cross excavation

This site was identified as an area of high archaeological potential due to the historic position of the original marker stone, the Netherton Cross (Figure 2) together with the potential presence of settlement within close proximity.

This area was subject to a watching brief during the construction works. During the topsoil stripping the remains of rubble and sandstone foundations were encountered (Plate 1). The largest concentration of stone, (Structure 1) was located adjacent to the marker stone itself; a smaller concentration of sandstone fragments (Structures 2 and 3) were located 20 m to the north and a similar but larger concentration of stone and rubble (Structure 4), was located 15 m south of the marker stone and just east of Structure 1.

Removal of the topsoil highlighted the impact the existing motorway construction had on the site covering it with a 0.1 m thick, but heavily compacted, layer of blaes and rubble. Unexpectedly, this thin levelling layer that extended across the site sealed the archaeological deposits below. The latter consisted of compacted brown/grey silt, rich in medieval pottery sherds, clay tobacco pipe, animal bone, seventeenth century copper alloy coins and iron artefacts. It ranged in thickness between 0.2 m and 0.15 m, and acted as an intermediary layer. It lay directly above archaeological features and sandstone structures (113) which lay within a demolition layer of compacted rubble. Although all archaeological features were investigated within the limits of the ground works necessary for the motorway improvements, it is important to note that they extended below the existing motorway to the south-west, possibly below the



Plate 1: Overhead view of Structure 1 during excavation.



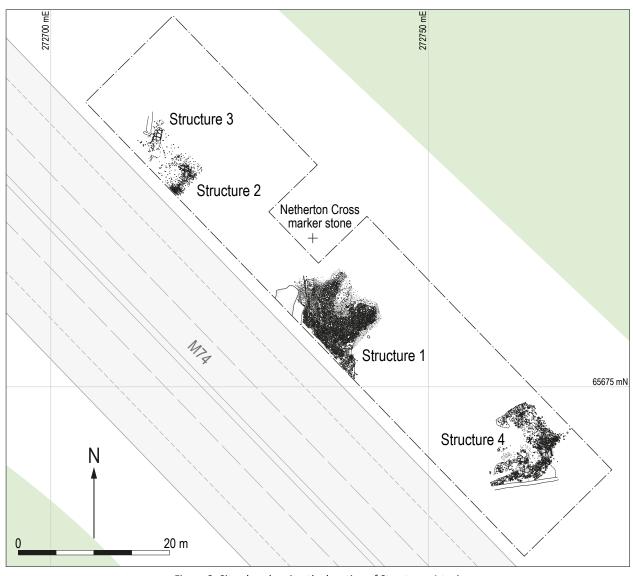


Figure 2: Site plan showing the location of Structures 1 to 4.

cross location, and also to the north-east across the haugh for an unknown distance. Any such cultural material beyond the investigated area remains in situ, as does the marker for the cross stone.

Structure 1

The area of Structure 1 at Netherton, with its stony deposits was the first to be excavated. From the initial cleaning, it was apparent that a compacted rubble deposit (113) covered an area upwards of 10 m by 11 m and extended east towards, and likely beyond, the current position of the Netherton marker stone and west towards, and below, the M74 road edge (Figure 3). The rubble was c. 0.25 m thick and appeared to be a demolition layer. It consisted of large angular granite and sandstone fragments relating

to the structural remains that once existed on the site (Plate 2). In order to investigate it further, a series of narrow slot trenches were excavated across the main concentration of stones in order to record its depth and composition.

Beneath the rubble was further material which included another large assemblage of medieval pottery, clay tobacco pipe fragments, and a worn seventeenth century copper alloy coin (SF 61). In addition, a fragment of carved pink sandstone (SF 173) was recovered, which may have been part of a larger monumental stone, possibly of medieval date, that had been incorporated into the building fabric. Also lying below the rubble was an organic-rich silt layer that included a fragment of iron slag (SF 86a) and a handle of a skillet of Scottish Post-Medieval Reduced Ware (SF 80)(see Cruickshanks and also Will below).





Figure 3: Plan of Structure 1 with a section through the rubble (113).





Plate 2: The remains of Structure 1 beside the motorway.

At the base of the rubble two shallow subcircular pits were encountered (121 and 122). Although no material culture or organic material was noted in their fills (120, 123), it was possible to retrieve archaeobotanic evidence indicating a waste pit containing burnt oat and barley grains. Both samples were subject to radiocarbon dating and produced medieval dates from the tenth to twelfth centuries.

Beneath the rubble, a layer of light brown/grey silt (128), possibly the remains of an occupation or detritus level was revealed up to 0.2 m thick. Although well compacted, it was both organicand artefact-rich but closer analysis of the sample also found it to be mixed with clinker and coal possibly from post-medieval demolition. A sample of hazel nutshell and hazel charcoal were recovered from it for radiocarbon dating (see Aldritt, below). The artefacts within it included a small medieval domed copper alloy mount for decorating leather (SF 90), a fragment of a tang from a small iron tool (SF 123b), and a small offcut of lead strip (SF 118), from lead sheet working. A large assemblage of green glazed pottery was recovered including Medieval Scottish White Gritty Ware and locally produced redwares, as well as Scottish Post-Medieval Redware. Degraded animal bone and clay pipe fragments were also recovered from the deposit. The latter included a clay pipe stamped with the

makers-mark 'I/C' dating it to c. 1660-1690 (see Gallagher below).

Directly below the silt layer of Structure 1 was a heavily compacted but uniform metalled surface (135) of small rounded pebbles (Figure 4). The surface was sub-rectangular in area and extended eastwards to or beyond the position of the Netherton stone marker and westwards underneath the M74. Excavations around the cross by Waddell in 1918 noted that the stone shaft 'was firmly embedded in gravel' and described it as possible paving. This description matches very closely to the compacted surface and may be part of the same matrix, but it would also suggest that the cross is not in its original position, being erected into a later surface. The deposit was rich in medieval pottery including Scottish White Gritty Wares, Scottish Medieval Redwares, and Scottish Post-Medieval Oxidised Wares, as well as square sectioned iron nails including a clenched example (SF 111). There was also another fragment of iron slag (SF 174) and a tiny flake of hammerscale recovered from bulk sampling (BS 34) indicating smithing in the area.

The uniform surface appeared to be consistent with an interior floor of a building rather than an exterior yard surface. It is also possible that further remains of this structure survive in-situ beneath the motorway.



During the excavation there were no obvious signs of any foundations for walls, except one consisting of larger stones at the base of the demolition layer (113) on the south-east side of the structure and c. 4 m in length. The evidence

suggests the upper wall stones were removed during demolition and therefore any clear indication of its function has been lost beyond its relationship to the surviving pebble surface (135).

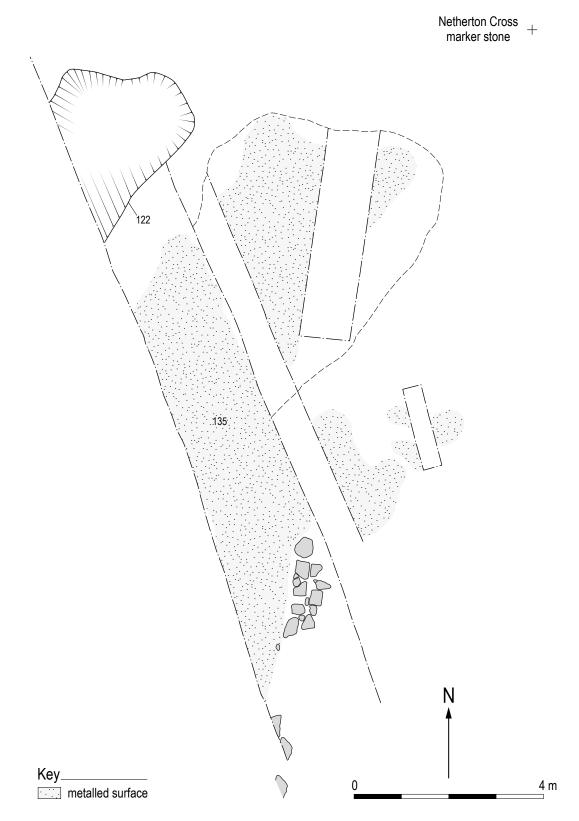


Figure 4: Plan of Structure 1 showing lower metalled surface (135).



A number of small outlying postholes in a linear arrangement were situated 4 m east of the wall. Three of them measured between 0.2 m and 0.4 m in depth. A number of fragments of medieval pottery and unidentified metal objects were recovered from the base of one of the postholes. It is possible that they represent the presence of a fence line or boundary associated with the structure. A compacted rough surface of stones was also identified to the east of Structure 1.

Structure 2

Structure 2 was located 20 m to the north of Structure 1 and was identified as a fragmentary wall of faced and rough sandstone blocks (145) arranged in a poorly defined right angle. The blocks ranged in size from 0.4 m to 0.7 m by 0.4 m and were set directly onto a thin deposit of silt and stones above the gravel subsoil (146). The feature tapered to the west into a matrix of small stones (146). It appears that this feature was disturbed with the original construction of the motorway, and may have continued westwards (Figure 5).

In contrast to Structure 1, no finds were recovered from the rubble deposits directly associated with the structure. However, adjacent to the larger

stones, was a small deposit of rubble (144) that extended to the south. It was interpreted as a layer of tumble or collapse associated with the wall. Within this deposit, the artefacts recovered included a sherd of Post-Medieval Reduced Redware (SF 134), degraded animal bone and unidentified iron objects.

Structure 3

A short distance to the north of Structure 2 was a regular arrangement of large, flat sub-rectangular and smooth sandstone blocks (142) c. 0.4 m by 0.5-0.6 m in extent (Plate 3). The south-east edge of this single course of stone was faced with a course of red brick suggesting the stones could have been the threshold to a building. Beneath them was a thin deposit of silt, which directly overlay the gravel subsoil.

A number of small finds were recovered including unidentifiable metal, a small fragment of wood and a number of red brick fragments which were retained. Due to the presence of red brick within the fabric of the structural remains, it was likely that these features post-dated the archaeological deposits to the south, and may have related to the post-medieval activity observed in the neighbouring Structure 2 (Figure 5).



Plate 3: The scant remains of Structures 2 and 3.

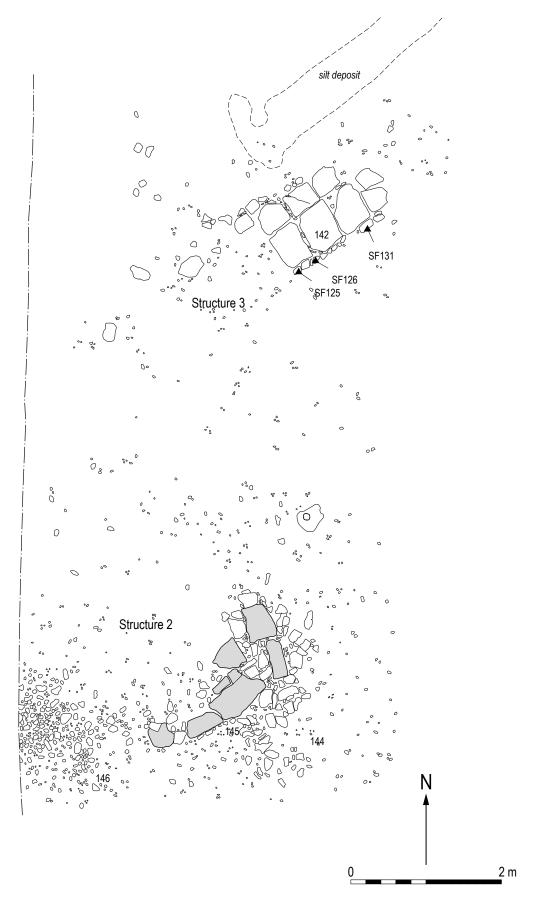


Figure 5: Plan of Structures 2 and 3.



Structure 4

To the south of Structure 1 was a larger expanse of stone and rubble dispersed over an area of 12 m by 11 m which displayed similar qualities to the first three structures situated 20 m to the north. Defining this area during the excavation revealed a corresponding stratigraphy to that observed in previous areas with a consolidated layer of blaes and construction debris associated with the motorway construction sealing a compacted layer of silt, which in turn preserved the archaeological features below (Plate 4).

Protected by the silt layer was an extensive distribution of sandstone rubble. As with the other structures this deposit contained evidence of material culture with sherds of medieval pottery including Scottish White Gritty Ware dating to the fifteenth century (SFs 211, 235 and 241) and clay tobacco pipe stems dating to the seventeenth century (SF 233 and SF 236), and a small sherd of light green glass from a flat sided bottle (SF 232). The excavation of this rubble revealed a series of linear foundations and deposits (Figure 6), but the distinct lack of any large stones indicates the likely removal of stone from this site.

Three groups of sandstone walling (150, 155 and 156) were visible between pockets of rubble located in what appears to be part of a stone-built structure or structures. Wall fragment 150 lay to the east and 155 to the south. Both appeared to be constructed in a shallow foundation trench with no obvious discernible edges. A linear concentration of large angular rubble fragments (162) and silt (187) marked the continuation of the wall foundations.

Stones 155 consisted of seven large flat sandstone blocks, the largest measuring 0.7 m by 0.7 m by 0.25 m. Concave wear was visible across the central stones, indicating a possible threshold stone (Plate 5), and therefore a doorway into the structure. Further excavation uncovered a socket or hinge recess that had been worked into a stone, SF 246, beside the larger threshold stone (Plate 6). Further analysis revealed this stone to be a reused well covering or capping (see Ballin Smith below).

The second setting of stones (150) appeared to be of the same construction as the first. It was also situated in a similar dark rubble/silty matrix within a shallow foundation trench (184) that indicated the continuation of the wall. It also



 ${\it Plate~4: Revealing~the~stone~foundations~within~Structure~4.}$





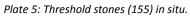




Plate 6: SF246 with hinge socket in-situ.

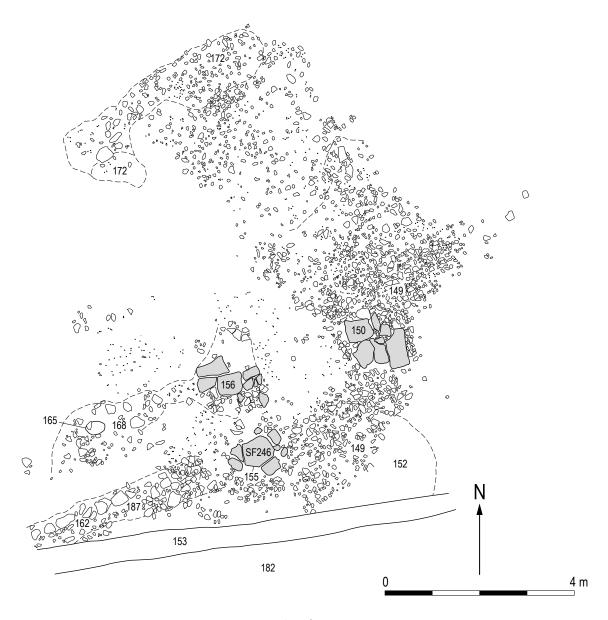


Figure 6: Plan of Structure 4.



formed a right-angle with the rubble of the southern wall alignment (162). The foundation stones appeared to be larger and up to 0.8 m in length. Artefacts recovered from this deposit included abraded medieval pottery sherds including Scottish White Gritty Ware (SF 212) and a local redware sherd (SF 231).

The final group of stones (156) lay 1 m north of the threshold at the southern end of the structure and they measured c. 0.5 m square. The stones were flat and were identified as the remains of a paved floor within the interior of this structure. Between and below the paving was clayey silt with pebbles and cobbles. Fragments of medieval pottery and iron square headed nails were recovered when cleaning the floor area.

The interior of the structure, lying within the angle of the stone foundations and around the paving, was badly truncated as the gravel subsoil (110) was partly visible. Small patches of an occupation surface were preserved including a relatively shallow deposit of silt and clay (168) in the southern portion of the structure that covered an area of 2.2 m square. Finds recovered from this deposit included a circular spindle whorl (SF 225) carved from cannel coal (Plate 7a, b and c), a whetstone (SF 253), a discshaped pottery gaming piece made from local

redware (SF 224), a thin decorated iron dress mount (SF 263) and two copper alloy coins. One (SF 228) was a Charles II bawbee dating to 1677 - 79 and the second (SF 255) a heavily worn possible turner, dated post-1642 owing to its size. A dagger (SF 206), initially recorded as an iron knife (Figure 9), was identified during the postexcavation analysis, and of possible prehistoric date (see Cruickshanks, below). Cutting into this deposit was a posthole (165), 0.38 m diameter and 0.31 m deep that containing large packing stones.

During the excavations around the southern exterior of the structure it was apparent that a large portion of the area had been adversely affected during the original construction of the motorway. A large area of demolition/backfill (182), contained sherds of Scottish White Gritty Ware and Scottish Post-Medieval Oxidised Ware, but also a significant amounts of modern refuse and debris. Subsequent removal of this deposit revealed another of ash, charcoal and coke (152), possibly discarded from a hearth that covered an area of 4.5 m by 2 m. Medieval pottery sherds were recovered from it with a relatively intact fragment of a large jug (SF 200, 201, 214, 220, 239 and 254), made from local redware and dating to the sixteenth century.



Plate 7: Spindlewhorl SF 225, a) damaged surface, b) side view, c) undamaged surface.



Specialists Reports

Archaeobotany

By Diane Alldritt

Introduction and methodology

A total of 37 environmental samples taken during the archaeological excavation were examined for carbonised plant macrofossils and charcoal. Material sorted from twenty-two of the sample retents was also analysed for identifiable charcoal, although the majority of this proved to be fragments of clinker and coal.

The bulk environmental samples were processed by GUARD Archaeology Ltd using a Siraf style water flotation system (French 1971). The samples were from 2 litres to 19 litres in volume. The flots were dried before examination under a low power binocular microscope typically at x10 magnification. All identified plant remains including charcoal were removed and bagged separately by type.

Wood charcoal was examined using a high-powered Vickers M10 metallurgical microscope at magnifications up to x200. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

Results

The environmental samples produced small trace quantities of carbonised remains with typically <2.5 ml up to 2.5 ml of charred detritus encountered per sample. Occasional finds of cereal grain and charcoal were made from some of the pits and postholes, whilst a few crushed fragments of charcoal were present in the rubble layers and stony deposits. Modern remains were frequent and found in amounts < 2.5ml up to 300 ml mostly consisting of modern root detritus together with modern seeds and earthworm egg capsules indicating potential for a high degree of bioturbation through the deposits. Large amounts of clinker and coal were recovered from the samples and probably originated from post-medieval industrial activity, with substantial

volumes of rubble and other material being moved around, used as levelling material, and re-deposited from elsewhere in more recent periods.

Netherton Cross - Structures 1 - 3

A total of 27 samples were examined from excavations at Netherton Cross with a few trace remains of cereal grain and charcoal recorded (Appendix 1).

Samples were examined from a series of postholes with the majority of these found to be sterile, indeed some of these may be stoneholes back filled with leveling material. A few trace remains of cereal grains were recovered with single grains of degraded *Avena* sp. (oat) recorded from postholes 126/125 and 139/130, perhaps these were structural remains associated with farm out-buildings or the material could be residual.

The pits provided more substantial evidence for agricultural activity occurring in the vicinity, and the archaeobotanical remains in these features seemed to have survived the surrounding demolition activity in better condition. Pit 121/120 was probably a waste pit and contained a small collection of *Avena* sp. (oat) in good condition together with crushed fragments of *Quercus* (oak) and *Corylus* (hazel) charcoal, probably fuel waste from cereal drying or cooking. Shallow pit 122/123 contained similar material and was probably contemporary with pit (121), with a small amount of oat and *Hordeum vulgare* sl. (barley) grain recovered together with small slivers of oak and *Alnus* (alder) charcoal.

A number of rubble and silt layers from Structure 1 were examined with very mixed deposits encountered. The bulk of material from (127) and (128) the silty layers below rubble (113) was found to consist of clinker and coal and is probably from post-medieval demolition, dumping and levelling of the site. Occasional traces of carbonised remains were found with a single <5 mm sliver of *Corylus avellana* (hazel) nutshell in (128) slot 2, a 5 mm fragment of *Corylus* (hazel) charcoal in (128) slot 6, and a 10 mm fragment of *Prunus spinosa* (blackthorn) charcoal in (128) (sample 36). The carbonised material has most likely been mixed through or re-deposited from elsewhere and may not be contemporary with the use of the



structure. Similarly a single oak sliver recovered from stony layer (147) beneath rubble (113) is probably not particularly significant.

A deposit of organic material below stones (142) in Structure 3 produced a small amount of *Quercus* (oak) charcoal, perhaps ashy hearth waste in amongst a very large amount of clinker and coal fragments. On this evidence Structure 3 is probably post-medieval or has been backfilled with post-medieval material.

Two samples from layer (135) in Structure 1 were sterile with highly crushed fragments of coal and clinker recorded. Layer (146) from Structure 2 was sterile with a small amount of coal and clinker present.

Netherton - Structure 4

Ten samples were examined from this structure with one found to contain a few traces of carbonised material whilst the remainder produced large volumes of coal and clinker (Appendix 1).

Possible pit (181/161) contained a single oat cereal grain in reasonable condition and a very thin fragment of *Calluna* (heather) stem, perhaps waste from domestic activity such as cereal drying or cooking. This pit is possibly of similar date to pits (121) and (122).

This area of the site produced substantial dumps of coal and clinker and the majority of deposits here are probably modern post-medieval. Possible posthole (185/165) was probably a stone-hole backfilled with coal and clinker. Large oval pit fill or foundation related to Structure 4 (168) contained a large deposit of clinker suggesting Structure 4 is probably post-medieval. Similarly, with rubble/demolition layers (149, 182 and 187), which were all full of clinker. Modern pit or deposits (152) and (160) contained very large deposits of clinker and looked like post-medieval fuel dumps, but were probably waste from industrial activity re-deposited ready to be spread around as levelling material.

Discussion

The environmental samples contained small quantities of carbonised plant remains largely confined to three of the pits (121), (122) and (181), indicating the limited survival of

archaeobotanical material that was possibly related to medieval agricultural activity. The remainder of the deposits had been heavily mixed through with clinker and coal re-deposited during more recent post- medieval demolition activities, as well as levelling and remodeling of the area.

Caution is advised on the selection of suitable radiocarbon dating material with hazel charcoal from pit (121) and alder charcoal from pit (122) potentially the only datable material that has not been re-deposited from elsewhere. Hazel charcoal from slot 6 (128) and hazel nutshell from slot 2 (128) and posthole (115/112) could potentially also be dated but are probably residual.

The evidence for medieval activity was ephemeral and largely absent from the environmental samples with much of the archaeological remains destroyed by more recent construction activity and heavy industrial use of the area. The structures are probably heavily truncated farm buildings left over from the later (medieval or later) arable use of the land, with the samples reflecting the large scale modern industrial movement of materials carried out during demolition and levelling of the landscape.

Radiocarbon Dating

Samples of charcoal and carbonized plant remains were selected as suitable for C14 radiocarbon dating from Netherton Cross features. This included hazel nutshell from posthole (112/115), hazel charcoal from pit (120/121), and alder charcoal from pit (123/122). From Structure 1 two samples were taken from 128 including hazel nutshell and hazel charcoal. The results are displayed in Table 1.

The radiocarbon dates suggest that the majority of features - posthole (112/115), pit (120/121) and sample 18 from the large pit (123/122) were medieval to early post-medieval in date, from the beginning of the fourteenth century AD and ending in the first quarter of the seventeenth century. The large pit (123) is potentially earlier depending on the origin and position of the alder charcoal, as it dates from the third quarter of the tenth century to the first quarter of the twelfth.



Sample Nr	Lab Code	δ ¹³ C	Context	Radiocarbon Age BP	Dates at 2 sigma	
10	SUERC-93931 (GU55121)	-25.7 ‰	Corylus avellana nutshell from context 112 the fill of posthole 115	544 ± 26	1318–1353 cal AD 1390–1433 cal AD	
13	SUERC-93932 (GU55122)	-27.0 ‰	Corylus avellana charcoal from context 120 the fill of pit 120	390 ± 26	1442–1522 cal AD 1575–1624 cal AD	
16	SUERC-93933 (GU55123)	-24.4 ‰	Corylus avellana nutshell from context 128, silt layer at the base of demolition rubble	8055 ± 26	7081–7020 cal BC 6970–6913 cal BC 6884–6833 cal BC	
18	SUERC-93934 (GU55124)	-27.4 ‰	Corylus avellana charcoal from context 128, silt layer at the base of demolition rubble	ext 128, silt layer at the base of 403 ± 26		
31	SUERC-93938 (GU55125)	-25.0 ‰ assumed	Alnus glutinosa charcoal from context 123 the fill of large pit 122	1015 ± 26	975–1044cal AD 1101–1119 cal AD	

Table 1: Radiocarbon dates all from Structure 1

The anomaly is sample 16 from the silt layer 128, where the dating of a hazel nutshell returned a late Mesolithic time frame.

There is increasing awareness that there can be wide discrepancies between radiocarbon dating of wood and hazel nutshell from the same context, as identified between samples 16 and 18 from silt layer 128. The burnt or carbonised hazel nutshell is virtually indestructible in the natural environment, so much so that it can occur as a much older intrusive piece in younger contexts (Mikkelsen 2020, 326).

Bones

By Catherine Smith

Animal bone and tooth fragments were recovered from the excavation and from the processing of soil samples during post-excavation analysis. The condition of all of the fragments was fairly poor and most of the smaller fragments in the sieved samples seem to have been subjected to heat. Hand-excavated bones were in a poor, abraded state and some were flaking apart. Teeth survived in a better condition than bone, but also tended to disintegrate into their component parts.

Bones and teeth were recorded as coming from particular species, if known, but where there was less certainty they were described as large ungulate (cattle or horse-sized), small ungulate (sheep/goat or pig sized) or indeterminate mammal.

Results

Species present in the hand-excavated material were cattle, horse and sheep/goat. Cattle and sheep/goat remains consisted of both bones and teeth while horse remains were represented only by molar or premolar teeth. Fragments classifiable only as indeterminate mammal and ungulate, the latter represented by tooth enamel fragments, were also recovered.

The animal remains from the sieved samples were mainly of indeterminate mammal bone, much of it calcined by heat, ungulate tooth enamel, and one sheep/goat phalanx fragment. Surviving tooth wear patterns indicated that adult animals were present.

The accompanying catalogue (Appendix 2) lists all the fragments by context and sample/small find number.

Table 2 indicates the presence of different species at Netherton Cross and at Hamilton Palace, excavated by SUAT in 1996 and 1997 (Smith 1997). Poor preservation of the bones found at the site of Hamilton Palace was very similar to that of the Netherton remains. Material collected from Hamilton South Haugh Low Parks in 1976, adjacent to the current site, consisted only of pottery and while test pits dug in 2001 recovered further post-medieval pottery, bone was absent (Hall et al. 2002).

Species present	Hand- excavated	Samples	Hamilton Palace (HA04)
cattle	+		+
horse	+		
cattle/horse	+		
sheep/goat	+	+	
large ungulate	+		+
ungulate	+	+	
indeterminate mammal	+	+	
pig			+

Table 2: Animal species present at Netherton Cross compared with species at Hamilton Palace.



Discussion

The poor condition of the remains indicates that much of the animal bone assemblage as originally deposited has not survived, probably due to acidic ground conditions. Burning helped preserve some of the bone, since exposure to high temperatures is known to alter the crystalline structure of bone in such a way as to render it more resistant to decay under burial conditions.

Previous work in the area at Hamilton Palace grounds found similarly poor, degraded material. There is little that can be said of animal husbandry or site economy at Netherton, other than cattle, sheep/goats and horses were present. Tooth wear patterns indicated the surviving teeth came from adult animals.

Lithics Assemblage

By Torben Bjarke Ballin

Generally, few stone artefacts were found, but at Netherton Cross a small number of lithic objects were retrieved. The lithics include six worked pieces that are characterised in general terms, with the aim of seeking to date them. The evaluation of the lithic material is based upon a detailed catalogue (see below) and the artefacts are referred to by their catalogue (CAT) number.

Key Definitions

The definitions of the main lithic categories are as follows:

Chips: All flakes and indeterminate pieces the greatest dimension (GD) of which is ≤ 10 mm.

Flakes: All lithic artefacts with one identifiable ventral (positive or convex) surface, GD > 10 mm and L < 2W (L = length; W = width).

Indeterminate pieces: Lithic artefacts which cannot be unequivocally identified as either flakes or cores. Generally, the problem of identification is due to irregular breaks, frost-shattering or firecrazing. *Chunks* are larger indeterminate pieces, and in, for example, the case of quartz, the problem of identification usually originates from

a piece flaking along natural planes of weakness rather than flaking in the usual conchoidal way.

Blades and microblades: Flakes where $L \ge 2W$. In the case of blades W > 8 mm, in the case of microblades $W \le 8$ mm.

Cores: Artefacts with only dorsal (negative or concave) surfaces – if three or more flakes have been detached, the piece is a core, if fewer than three flakes have been detached, the piece is a split or flaked pebble.

Tools: Artefacts with secondary retouch (modification).

Catalogue

Context 111 (layer below topsoil, sealing Structure 1)

CAT 1 (SF 9): Proximal fragment of secondary hard-hammer flake (20 by 21 by 7 mm); finegrained dark-grey chert.

CAT 2 (SF 49): Secondary core with two platforms at an angle (26 by 23 by 17 mm); fine-grained dark-grey chert. This piece was originally a neat conical microblade core but, towards the end of its 'life', an attempt was made to transform this piece into a dual-platform core by transforming the platform into a secondary flaking-front.

CAT 3 (SF 56): Medial fragment of indeterminate flake (31 by 18 by 6 mm); indeterminate raw material.

Context 113/Sample 0128 (rubble context 113; pottery-rich)

CAT 4: Distal fragment of indeterminate microblade (5 by 4 by 1 mm); fine-grained, cream flint.

CAT 5: Distal fragment of indeterminate flake from opposed-platform core (13 by 13 by 6 mm); fine-grained, dark-grey chert.

Context 128/Sample 18 (silt layer below rubble context 113; pottery-rich)

CAT 6: *Chip* (≤ 10 mm); fine-grained, dark-grey chert.



Discussion

The subsoil across the area (110) was a welldraining orange/brown sand and gravel with some larger natural stone inclusions. Directly above this, an intermediate deposit (111) consisted of well-compacted brown/grey silt sealing the archaeological features below. This intermediate layer was rich in medieval pottery sherds and varied in depth between 150 mm and 200 mm across the site. Three of the lithic finds were recovered from 111, indicating that they are residual, redeposited pieces.

The three lithics include one chert flake (SF 9), one flake of an indeterminate raw material (SF 64), and one dual platform core of chert (SF 49). The latter is a small conical microblade core (greatest dimension 26 mm) which, towards the end of its 'life', had a second platform added, transforming the original platform into a secondary flakingfront.

The two flakes are undiagnostic, but the core is of a type typically found in connection with the investigation of Scottish late Mesolithic (e.g. Glentaggart, South Lanarkshire; Ballin 2005) and early Neolithic sites (e.g. Garthdee Road, Aberdeen; Ballin 2014).

The remaining three pieces include one chert chip (CAT 6), one chert flake fragment (CAT 5), and one fragment of a well-executed flint microblade (CAT 4). Intentional microblades were first and foremost produced during the late Mesolithic/early Neolithic framework (Ballin and Johnson 2005; Ballin 2014). These three pieces were recovered from rubble deposit (113) and a layer below this context (128), suggesting that they are also residual.

Combined, this suggests that a prehistoric site (dating to the framework 8400-3500 cal BC; Ballin 2017, Table 4) once existed at this location, but it was probably completely destroyed in connection with the extensive construction work which took place from the medieval period onwards.

The Coarse Stone

By Beverley Ballin Smith

The ten stones forming the basis of this report from Netherton were gently brushed or washed before analysis. They were examined by eye and with x6 hand lens, and their attributes and statistics compiled in an archivable database devised using Microsoft Excel. The artefacts were measured, and where possible, weighed. The most interesting pieces have also been photographed. The collection was analysed according to CIfA's Standards and Guidance for the collection, documentation, conservation and research of archaeological materials (2014).

Most of the stone artefacts were collected by hand from the excavations at Netherton Cross Structure 1 and from Structure 4. Although soil samples were taken and later sieved, no further tools were found. The stones range in date from possibly as early as the medieval period through to post-medieval times.

Results

Slate

Two unstratified roofing slates (not illustrated) were retrieved from the excavations and both are considered to be local slate. SF 2 from the topsoil in Trench 94 is a fragment of blue-grey coloured slate, which was perforated by chipping with a fine pick. The remains of two small perforations are located side by side. The piece weighs 40 g and measures 68.8 mm by 52.6 mm with a thickness of 8.4 mm. The diameter of the two perforations measure 3 and 4.5 mm. The piece broke across the perforations.

The larger piece is SF 155 and is a piece of green-grey roof slate that broke at a possible perforation. It weighs 146 g with measurements of 137.7 mm by 85.5 mm and a thickness of 8.6 mm.

It not possible in this current analysis to identify which quarries both fragments came from, as they do not have the characteristics of either Easdale or Ballachulish slate, for example (see Hyslop et al. 2006, 68-70). The British Geological Survey map (2001) of the Building Stone Resources of the United Kingdom Map indicates



former slate quarries on Bute, Inchmarnock and Lochranza, Arran, as well as along the Highland Boundary Fault. It is possible that these two examples could have derived from close to the River Clyde estuary, and brought into Glasgow by sea/river transportation. Another possibility is that the slate could have been ballast brought into the Clyde area on sea-borne ships.

Cannel Coal

Unusual pieces recovered in Structures 1 and 4 are thought to be cannel coal, which is a soft rock closely associated with the coal measures found across the Scottish Central Belt. Cannel Coal can also be described as oil shale. Three pieces are thought to be natural (SF 107, 142 and 234), but were retained as part of the collection. SF 107 is a possible fossilised seed pod that could have been used as a gaming piece (Plate 8a and b).





Plate 8: a) and b) Cannel coal 'gaming piece' SF 107.

SF 255 is a perforated whorl from context 168, a large pit associated with the construction of Structure 4 (Figure 7 and Plate 7). This piece is probably a piece of cannel coal that was

manufactured on a lathe. One surface is flat and the other slightly convex. Both surfaces are decorated by two parallel incised lines running around the whorl between the central hole and the edge of the object. Four parallel lines are incised around its side. The cylindrical perforation through the piece is 10 mm in diameter. The flat surface has suffered from some damage possibly due to the forcing of a spindle through the perforation. The piece is most likely a spindle whorl or a counter. It weighs 16.4 g and measures 29.3 mm in diameter and its thickness is 22 mm. It is most likely to be post-medieval in date, as its cylindrical shape is different from medieval examples, and its decoration is well-defined and indicates little wear.

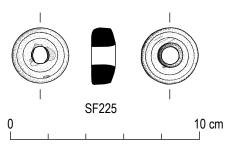


Figure 7: Decorated cannel coal spindle whorl SF 225.

Sandstone

The sandstone used for artefacts varies considerably in fine/coarseness, and the grain size of the rock has affected the purposes the stone was put to use. Sandstone forms part of the bedrock beneath the Glasgow area, often in a blonde colour, although red, brownish and reddish coloured stones were also guarried (Hyslop et al. 2006, 28).

SF 173 is a piece of coarse pink sandstone located in the demolition layer (context 113) from Structure 1 at Netherton Cross (Plate 9). As the demolition material could have included material brought in from elsewhere to level off the building remains at the site, is it not proven that this was a local piece. Reddish sandstones with clay clasts (ibid.) were quarried at Cambuslang, and this could be the nearest source for this stone.

The piece is a decorated block with incised coarse lines made by a 7 mm to 10 mm wide chiselled on one face. An incised line runs parallel to the long edge of the piece, and is straight, but the next line diverges and branches into two. Towards the other edge of the stone are three short parallel



incised lines at right angles to the others. None of the lines appear to be well-executed, but this could be a product of weathering. The reverse face of the stone is flat but all its edges are irregular. The piece weighs 1116 g and measures 160 mm by 132 mm by 38.3 mm.



Plate 9: Fragment of decorated stone SF 173.

The stone appears to have broken off a larger piece and given its weathering, this may have occurred in the distant past. It could be considered that its appearance indicates that it may be a much older decorated stone, possibly medieval in date, which once was part of a graveyard monument or similar.

The well-known local red (pink) sandstone cross that once stood immediately adjacent to Structure 1, now in the parish church at Hamilton (NRHE, Canmore ID 45656) is considered to be tenth century in date. It is not inconceivable that SF 173 is part of a similarly dated or later decorated monumental stone.

Another pink sandstone piece, SF 253 was collected from context 168, a large pit associated with the construction of Structure 4. This piece is a fragment of a fine-grained block used as a hone or whetstone on both faces and the intact side (Plate 10). Both faces are flat and very smooth and the remaining side has an area of polish, indicating where the stone was used. One face has a deep groove probably as a result of finishing a metal blade. The piece weighs 262 g and measures 82 mm by 57.7 mm by 31 mm.



Plate 10: Sandstone whetstone SF 253.

Pieces of fine-grained sandstone have been used as whetstones for sharpening metal blades since the Iron Age and it is possible that this is a leftover piece of building stone which has been opportunistically used as a useful tool. It could well be medieval or post-medieval in date.

SF 246 from context 155 may have formed part of a well covering or capping in the area of the Structure 4 excavations (Figure 6, Plate 6). This large stone lay on the edge of the stonework capping the well but may not have been *in-situ*.

The irregularly-shaped boulder has a domed top and a base that has been chiselled roughly flat. In approximately the centre of the domed surface a roughly squared slot has been formed by chiselling. The slot measures 55 mm by 50 mm by 45 mm and as the chisel marks in the base are noticeable, it suggests the piece may be unfinished, and therefore unused. The stone has a slot for a swivel and may have been intended as a pivot stone, or a fixing for a square metal bar. Its association with the use of the well is not confirmed, and its placing on the edge of the well capping may be fortuitous.

The boulder was not weighed but it was in excess of 10 kg. It measures 570 mm by 305 mm by 130 mm.

Discussion

Three out of the ten stones were described as natural (SF 81, 142 and 234), all being cannel coal, and one stone of mixed materials has been



discarded as a product of industrial activities. Structural pieces in sandstone include SF 173, a decorative piece possibly dating to the medieval period, SF 246, may have had a structural use, and SF 2 and SF 155 were fragmentary roof slates. The two remaining pieces are personal items with the functions of knife sharpening - SF 253 in sandstone, and a perforated whorl (SF 225) in cannel coal, most likely a spindle whorl, but its use as a counter cannot be discounted.

The latter two were associated with Structure 4, indicating the domestic or home industrial use of the building or its environs, and their probable dating to the post-medieval period would be consistent with the date of the structures found on the site. All the remaining objects came from demolition or levelling layers at Netherton Cross, or were unstratified.

One of the most interesting objects is SF 173, the decorative piece, which could be from a grave marker or stone, but further information on its origin cannot be determined from its depositional context.

Large stone artefacts are difficult to date, depending on context, and their numbers decline in the archaeological record during the medieval and post-medieval periods to be replaced by the use of iron, steel and bronze. Recent work on the M74 completion was concerned mainly with Glasgow's nineteenth century cultural heritage, the industrial and housing remains of the time, and there is little evidence of earlier artefacts to compare with these stone pieces found at Netherton (Nevell 2016 and Drew 2011)

Medieval and Later Pottery

By Bob Will

Introduction

The assemblage of pottery recovered from the archaeological investigations consisted of 344 sherds (3605.1 kg) and includes material from the medieval and post-medieval periods as well as a few modern industrial wares (Table 3). Although four sherds were recovered from four evaluation trenches elsewhere on the project, the majority were recovered during the investigation of the Netherton area. All the sherds were examined, weighed and recorded according to guidelines and standards produced by the Medieval Pottery Research Group (MPRG 1998 and 2001). As a group, the pottery dates to the late-medieval to early post-medieval period. Many of the sherds were small and in poor condition with abraded surfaces and many had split or fragmented into spalls. This would indicate that the sherds had been moved or disturbed after their initial deposition. Although a number of sherds were from the same vessel, a large jug, it was not possible to reconstruct any vessels or profiles. Appendix 3 provides detail of all the sherds.

Fabric	Total	rim	base	handle	body sherd	Weight (g)
Local redware fabric	79	1	6	2	70	1458.7
Scottish white gritty ware (SWGW)	71	6	7	3	55	703.4
Reduced Gritty Wares	16		1	2	13	96.4
Scottish Post- Medieval Oxidised Ware	42	2	5	7	28	386
Scottish Post Medieval reduced ware	130	1	3	3	121	860.2
Modern	41	2			2	19
Tile	2	1			1	81.4
Total	344	13	22	17	290	3605.1

Table 3: Composition of medieval and later pottery.

Local Redware fabric

A total of 79 sherds (1458.7g) were recovered in a local redware fabric, similar to pottery found in Hamilton and at Cadzow Castle, and follows the Scottish Medieval redware pottery tradition. A late- medieval pottery kiln site was discovered at nearby Hamilton Palace in 1997 (Cathcart, Franklin and Hall forthcoming, CANMORE 109501). Similar pottery has been recovered from Cadzow Castle where it is described as 'a sandy fabric reduced to mid-grey, but for exposed areas which are oxidised reddish orange. Glaze is of a brownish olive-green and appears to a greater or lesser extent on all vessels' (Franklin 2009). The pottery at Cadzow Castle dates to the sixteenth century and the sherds from Netherton Cross fits into this era.

The sherds from the excavation comprise mainly jugs with flat bases and grooved strap handles with decorative cordons on the neck. One of the



strap handles (SF 77) that was recovered (Figure 8) has been attached to the body of the vessel by what looks like a plug that has been pushed through the wall of the jug and then flattened internally. Two of the bases have stacking scars on the underside. Jugs are often stacked upside down in the kiln and if the glaze from the jug above runs during the firing it fuses the two vessels together and leaves a circular mark on the underside of the base of the lower jug. 27 body sherds were recovered from what appears to be the same vessel (SF 200, 201, 214, 220, 239 and 254, context 152, not illustrated), a large jug with a reduced core and yellow/brown coloured glaze on the exterior with evidence of knife trimming towards the base. Bowls may also be represented as one of the bases was glazed on the interior which is common on bowls but less so on jugs. The rim that was recovered may also be from an unglazed bowl (SF 41, context 111, Figure 8). The complete base of a small vessel 60 mm in diameter was recovered (SF 257, context 168, Figure 8). Although the upper body does not survive, the base has a slight splay on it and it is probably from a small jug or drinking vessel.

Two body sherds had been shaped into discs for use as counters or gaming pieces, one (SF 224, context 168) was circular while the other (SF 194, unstratified) was more uneven. Pottery sherds re-used as counters or gaming pieces was quite common and they often turn up on medieval and later assemblages.

Scottish White Gritty Ware

71 sherds (703.4g) in Scottish white gritty ware fabrics were recovered. This fabric type is found throughout Scotland particularly in the east of the country and the central belt. White gritty wares first appear in the late twelfth century but the tradition lasts into the late fifteenth century. So far, the only published kiln site of this era is at Colstoun in East Lothian. This fabric has been extensively studied and it is likely that a number of kilns were in production throughout Scotland (Jones et al). White gritty fabrics vary from white to pale pink to buff in colour with varying amounts of quartz. The fabrics display evidence of different kiln firings and manufacturing techniques and potting skills. Some vessels are very well made with thin walls with abundant quartz inclusions and a light green glaze while others are thick-walled with reduced cores with little visible quartz inclusions and dark green glaze.

The sherds from Netherton Cross are generally in reduced fabrics with green glaze with a white margin below the glaze. Many of the sherds have thin walls and are well made. Taken together these characteristics suggest that pottery would date to the fifteenth century. Most of the sherds are from green glazed jugs with flat bases with either a grooved strap handle or a rod handle. Two rim sherds that join together are glazed on both surfaces and have a handle scar on the rim

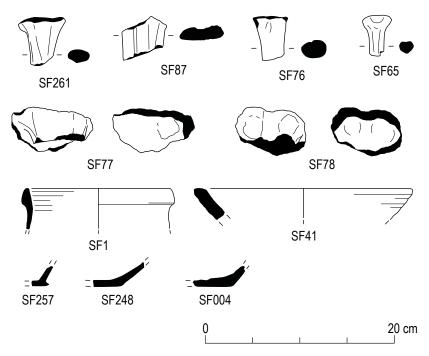


Figure 8: Illustrated pottery from the site - handles, decorated pieces, rims and bases.



which suggests that this may be from a small handled bowl. A rim and a body sherd were recovered that have soot or black fuming marks on the exterior this would suggest that they may be from a cooking pot and may be slightly earlier.

Reduced Gritty Wares

On a number of excavations in particular from the west of Scotland a reduced version of white gritty ware has been identified and called 'reduced gritty ware' these have been found on excavations at Dundonald Castle (Caldwell 2004) and in Ayr (Franklin and Hall 2012). This pottery type is usually well made with thin walls, is highly decorated with a full green glaze, and is highly fired with a completely reduced black fabric with no white or pale margin below the glaze. Although glazed and decorated, the fabric is sometimes uneven with a slightly crude finish. All the sherds from Netherton Cross in the reduced fabric are from green glazed jugs although one sherd (SF 63, context 113) was glazed on the inside which might indicate that it was from a bowl. Two joining sherds (SF 65, context 111) were decorated with an incised horizontal wavy line (Figure 8). Two handles were recovered, both rod handles, one of which had a slight central groove.

Scottish Post-Medieval Reduced and Oxidised Wares (SPMRW and SPMOW)

A total of 172 sherds (1246.2 g) were recovered in Scottish Post-Medieval Reduced Ware and Scottish Post-Medieval Oxidised Ware fabrics. These fabrics were first classified at Stirling Castle (Haggarty 1980) and date from the late fifteenth to eighteenth centuries. The only published kiln site for this era in Scotland is at Throsk on the banks of the Forth to the east of Stirling (Caldwell and Dean 1992) but other kiln sites making similar vessels are likely to have been in operation across Scotland. Historical research at Throsk has uncovered details about the potters and their families and links to other parts of Scotland (Harrison 2002). It has been suggested that it was the draining of the carse that led to the development of pottery production as the carse clays were now more easily accessible (Haggarty and Lawson 2013). The best range of vessels so far recovered comes from Throsk and Stirling Castle where platters, bowls, skillets, fish

dishes and money boxes or *pirlie pigs,* as well as the more common jugs have been recovered.

Scottish Post-Medieval Reduced Wares (130 sherds) are more common than the oxidised wares and are mainly used for large jugs or storage jars with a thick grey/black smooth fabric and a full green glaze. The sherds from Netherton Cross have split or fragmented into spalls making it difficult to see the full thickness of the sherds but most do have a full green glaze. The sherds are probably from jugs and two base sherds have a kiln stacking scar on the underside. The oxidised wares (42 sherds) are again from handled jugs or storage jars.

Medieval tile

A fragment from a tile was recovered in a coarse orange coloured fabric with a partially reduced grey/black coloured core (SF 158 unstratified). This fragment is 33 mm thick with smooth surfaces. One surface has a slight groove in it with glaze and may represent part of an impressed design. A number of highly decorated floor tiles were recovered from the nearby castle at Cadzow where they are thought to date to the sixteenth century (Franklin 2009).

Modern

Only two modern sherds were recovered from the excavations, one a white earthenware with a moulded design and a cream coloured glaze. This type of fabric known as 'creamware' was first made in the 1750s and became very popular in the late eighteenth century before the development of white earthenware which came to dominate the market in the nineteenth century. Despite the prominence of white earthenware creamware continued to be made and is still made today. The other sherd, a moulded rim in an orange coloured smooth fabric is probably from a modern flower pot or similar type of vessel. An unstratified curved fragment from a tile in a red fabric (SF 10) was recovered and is likely to be from a modern pantile or roof tile.

Discussion

While the assemblage covers a wide date range from the medieval to modern period. The bulk of the sherds would date to the late medieval to early post-medieval period (1450-1650 AD).



The different fabrics are very similar in that they are predominantly reduced to a grey or black colour with green glaze and the fabrics have been divided by small differences in the fabric colour. Jugs are the predominant vessel type although cooking pots/storage jars and bowls are also represented. Surprisingly no imported sherds were recovered from the investigations. Although little research has been done on late medieval pottery in Scotland an assemblage of late medieval pottery has recently been published from nearby Cadzow Castle (Franklin 2009) and the sherds from Netherton Cross fit well with the range of vessels and fabrics from there.

Glass

By Robin Murdoch

This small assemblage of glass from Netherton Cross consisted of two reasonably sized shards (small finds in their own right) and four smaller ones from bulk samples (Table 4). Initially, it was thought that Sample B (SF 232) was a shard of window glass but analysis revealed it more likely to be from a flat-sided bottle of mixed alkali composition but with high calcium content. Sample A (SF 237) was also made from a mixed alkali composition but with lower calcium. Mixed alkali composition glass was common in the sixteenth and seventeenth centuries (Wilmott 2002, 6). Usually glass was made using either a soda or potash flux to reduce the temperature at which the silica would vitrify. It's not clear whether the alkalis were deliberately mixed or due to the addition of cullet (broken glass) to the batch (ibid.). Both samples A and B have

strontium levels which suggest that the potash part of the flux was derived from coastal plants or just perhaps kelp.

Sample C (BS 22) is a high lime low alkali (HLLA1) window glass of probable late sixteenth century date (Dungworth 2011, 2). HLLA glass was introduced into England c. 1567 by Huguenot settlers but may have been imported into Scotland from the continent before that, since we have no evidence of indigenous glass manufacture before c. 1610. According to Dungworth (ibid.) the level of manganese (Mn) in HLLA glass was significantly reduced around 1600 but sample C has Mn levels even higher than that present in the earlier version. However, this may be due to corrosion where heightened levels of Mn seem to get trapped in the glass.

Coins

By Carl Savage

This is a small assemblage of low denomination copper coinage primarily dating to the seventeenth century (Table 5). A number of coins were very worn and therefore not identifiable beyond their size and form, but were recognisable as post-medieval coins. The earliest coin recorded from a secure context 111 was a SF 30 a James VI/I hardhead or turner ranging in date from c.1588 to c.1623, and the latest from 168 SF 255 a Charles II turner dating to c.1677 – 1679. A later seventeenth century halfpenny of William III SF 153 was also recorded but was from an unstratified deposit.

SF.No.	Bulk Sample No.	Context	Description
232		149	Shard WG?, mid olive green, 1.8 mm thick, generally firebright. One face smooth, other frequent small indentations from surface contact. Possible broad glass. (Sample B)
237		152	Wall shard from probably cylindrical bottle, pale dull green, thin blown 1.1 mm. Firebright outer, patchy light corrosion inner. Slight inturn (break of shoulder) at one end, varying seed (gas bubbles) (Sample A)
	19	128	Tiny shard, probably shatter fragment. Colour is similar to BS 22 but is too small for further comment.
	22	129	Small shard WG, pale slightly brownish, 1.5 mm thick. Both faces rough (possibly secondary from loss of corrosion layer) (Sample C)
	35	147	Tiny shard, too small for objective comment.
	42	152	Tiny shard, clear glass, good condition, probably modern. Too small for pXRF analysis.
	45	160	Curved shard probably from WB, pale dull green, generally firebright, probably from around base ring of bottle. Colour would suggest eighteenth to early nineteenth century.

WB - Wine bottle WG - Window glass

Table 4: Catalogue of glass shards.



Catalogue No.	SF. No.	Context	Description
1	1	u/s	Probably a William III halfpenny, right facing laurate bust on obverse, reverse illegible, die axis unknown, coin extremely worn. Reference: Spink (2009) 3554-3556
2	255	168	Unidentifiable copper coin, based on size possibly a turner of Charles I or II post- 1642 issue
3	133	123	Charles I or II turner (2 pence) post-1642-63 issue, crowned CR on obverse, crowned thistle on reverse, die axis: 180 degrees, heavy ware. Reference: Spink (2015) 5602 or 5625
4	61	113	Unidentifiable copper coin, probably seventeenth century in date, coin bent and extremely worn
5	47	111	Unidentifiable copper coin, based on size possibly a turner of Charles I or II post- 1642 issue
6	228	168	Charles II bawbee (6 pence). Left facing laurate bust on obverse and crowned thistle on reverse, dating to 1677-79, die axis: 180 degrees, heavy ware. Reference: Spink (2015) 5626-1528
7	38	111	Charles I or II turner (2 pence) post-1642-63 issue, crowned CR on obverse, crowned thistle on reverse, die axis: 180 degrees, heavy ware. Reference: Spink (2015) 5602 or 5625
8	30	111	James VI/I copper alloy coin either a hardhead type II (November 1588) or a turner (2 pence) of the 1614 of 1623 issue. Lion rampant on the reverse with two pellets behind and possibly a crowned IR on the obverse. Legends missing and coin heavily worn. Reference: Spink (2015) 5518, 5523 or 5524
9	11	111	Charles I or II turner (2 pence) post-1642-63 issue, obverse illegible, crowned thistle on reverse, heavy ware. Reference: Spink (2015) 5602 or 5625

Table 5: Catalogue of coins.

Clay Tobacco Pipes

By Dennis Gallagher

A total of 71 clay tobacco fragments were recovered from the excavation. These, where identifiable, were of seventeenth century date. The pipes were of a poor quality, with no burnishing and no decoration, such as roller stamps, suggesting relatively poor smokers. Two bowls had marks identifying them as products of makers prominent in seventeenth century Glasgow, William Hynshaw and James Colguhoun. The Glasgow industry was established in the late 1660s and soon competed successfully with that of Edinburgh, supplying pipes mainly to the west of Scotland.

One was a complete bowl (182 / SF 209,) has a relief W/H on the side of the base. This can be identified as a product of William Hynshaw (Plate 11, 1). William Hynshaw had a long career as a pipemaker being first recorded as such in 1674 and he supplied pipes for the Darien expedition in 1699 along with a James Colguhoun (Gallagher 1987a, 40; Gallagher 1987b, 236-7). The bowl can be dated stylistically to c. 1660-80 but pipes of a similar form have been found in closely dated contexts from the end of the seventeenth

century, such as the 1690 wreck of the Dartmouth (Martin 1977, 220, no 1) and the assemblage from the Scottish Darien colony, Panama, 1698-1700 (Horton et al. 1987, 244, no 18 and 247). It is probable that this form continued as a cheaper alternative to the larger, more fashionable, bowls prevalent in the later seventeenth century. As such it would fit the generally low quality of the present assemblage.



Plate 11: Clay tobacco pipes, 1) decorated pipe bowl made by William Hynshaw, 2) basal fragment of pipe made by James Colguhoun. Photograph by D. Gallagher.

The pipe assemblage also includes a basal fragment is marked with a relief I/C, for James Colquhoun (128 / SF 114, (Plate 11, 2). Three successive Glasgow makers named James



Colquhoun span the period from 1668 to 1730, although the present pipe is likely to date from the first half of that period Gallagher 1987a, 38-40; Gallagher 1987b, 236-7).

- Bowl with mould-imparted W/H on sides of base, pellet under the H, the W very faint and probably obscured during finishing; William Hyndshaw, Glasgow, c. 166-90; context 182, SF 209.
- 2 Basal fragment with mould-imparted I/C on sides of base; James Colquhoun, Glasgow, c. 1660-90; context 128, SF 114.

Cambroe Farm Road

Three fragments of clay tobacco pipes were recovered from the excavation. This included a bowl with leaf and pellet decoration extending on to the stem; post-1850, (unstratified, SF 006, Plate 12, 1). A bowl wall sherd, of nineteenth century date, had fluted decoration (Plate 12, 2). A stem fragment had GLAS(GOW) within a rope twist frame; Glasgow, post-1850 (unstratified, SF 006, Plate 12, 3).



Plate 12: Clay tobacco pipes 1) decorated bowl, post-1850, 2) decorated bowl fragment, nineteenth century, 3) decorated stem fragment post-1850. Photograph by D. Gallagher.

Metalwork

By Gemma Cruickshanks

Some 61 metal artefacts were recovered during excavations at Netherton, predominantly iron but including three copper alloy and two lead objects (Table 6). Most of the assemblage comprises various forms of nails and other common fittings. Of particular note is a dagger from the foundations of Structure 4, which may have been a special deposit. The material was recovered

from deposits associated with a medieval structure and later agricultural activity dating to the medieval period onwards. All objects were X-radiographed to aid identification and enhance the archive.

Object Type	Iron	Copper alloy	Lead	Total
Dagger	1			1
Tools	2			2
Fitting	6	1		7
Nail	33			33
Cast iron vessel fragments	3			3
Agricultural	3			3
Weight?	1			1
Lead shot			1	1
Strip/ bar fragments	4	2		6
Working debris	2		1	3
Unidentified	1			1
Total	56	3	2	61

Table 6: Summary of metalwork assemblage.

Dagger

An almost intact dagger (SF 206) was found in a feature (context 128) associated with the foundations of Structure 4. Mineralised organic material on its blade suggests it was sheathed when buried, and the damage is recent, indicating it was probably intact and still useable at that time (Figure 9). The form of this dagger is indistinguishable from some Iron Age examples, especially the sloped shoulders, for example, two from roundhouse postholes at Culduthel, Inverness (Hunter forthcoming), indicating this simple dagger form has a very long history.

Tools

Tools are poorly represented here. A tang fragment (SF 123B) could have held the handle on a range of tools.

Fittings/fixtures

The most recognisable of the fittings is the looped end of a handle (SF 251). Such handles were attached to buckets or cooking pots. SF 210 is part of a U-shaped staple, a fitting which has changed little in form since the Roman period and is still used, e.g. when attaching wire to posts on fences. Two perforated fragments of sheet (SF 123C) and strip (SF 263) were mounts of some



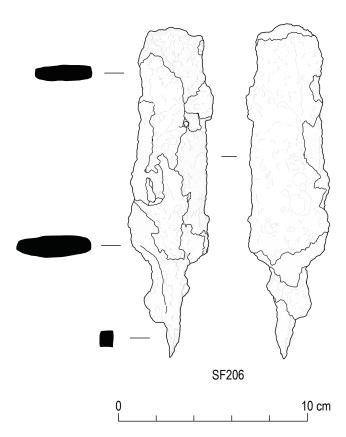


Figure 9: Iron dagger SF 206 with traces of organic residues.

sort. While the sheet mount is too fragmentary to determine its original form, the strip retains one neatly rounded end and shows hints of diagonal lines on the X-radiograph, suggesting it may have been decorated. Two other fittings have fragmentary loops on one end, but have too little surviving to more closely determine their function (SF 31 and SF 95).

The only copper alloy fitting is a fragmentary domed mount with central perforation (SF 90). A range of such mounts are known from the medieval period, where they were used, sometimes in large quantities, to decorate leather straps (Egan and Pritchard 2002, 175, fig.112).

Nails

As with most metalwork assemblages from the medieval period onwards, nails are the most abundant category of find, with 33 identified here. Of the 23 with surviving heads, most correspond to Goodall's Type 1: 'flat head of square, rectangular or rounded shape' (2011, 164, fig.9.1), with fewer examples of domed (1), narrow rectangular (4), flat wedge-like (2) and large T-shaped (2) heads (Goodall's types 2, 3, 6 and 9 respectively). The two nails with wedge-shaped heads could well be large horseshoe nails.

Of the 19 nails with relatively intact shanks, five are curved, indicating they had been removed from wood prior to deposition, and three are clenched, revealing they were still within wood. Eleven are straight, suggesting they were in wood or unused. This is not a large enough sample to say a great deal about the nature of the structures these nails were associated with, and most were dispersed across the site in secondary contexts. Three very similar nails (SF 128) were found together in a thin organic deposit (context 143) beneath stone, but no other concentrations were noted which may have indicated the dismantling of a structure, for example.

Cast iron vessels

Three fragments of cast iron (SF 84, SF 106 and SF 159) are probably from vessels such as cooking pots, though they are so small and fragmentary they could also been from agricultural machinery or drainpipes, for example. Such cast iron objects are no older than the eighteenth century AD.

Agricultural

A single unstratified horseshoe fragment (SF 154) could be medieval or later. Its large size is typical of the heavy horses used to pull ploughs, etc. Two cast iron points (SF 156 and SF 200) are likely to be broken harrow teeth, common finds in areas which were regularly cultivated in the past.

Weight?

SF 127 is an unusual, robust waisted 'skittle'-shaped iron object. It would have functioned well as a weight, though by the medieval period lead was abundant for such purposes. No exact parallels have been found. Since there is ironworking evidence at the site (see below, and Industrial Debris, below), it is also possible this object is unfinished or a blank for fashioning a heavy implement such as a hammerhead or axehead.

Lead shot

A single piece of unstratified lead shot (SF 152) was recovered. Its small size (9g; 11.5 mm in diameter) is consistent with a flintlock pistol dating to the seventeenth to nineteenth centuries.



Strip/bar fragments

Six objects are fragments of strips, bars or sheets, but are too fragmentary to identify more closely. SF 129 and SF 267 are formed from fine copper alloy sheet and may have been from decorative mounts, while the other are iron and may have been part of a range of fittings or implements. It is also common to find such fragments on sites where ironworking is taking place, as offcuts or scrap for recycling would frequently have been in circulation.

Working debris

X-radiography of two of the iron fragments (SF 16 and SF 191) showed that their internal structure was fairly porous, suggesting they are from the bloom refining process. See Industrial Debris (below) for further discussion of ironworking at the site. A narrow strip of lead with cut edges (SF 118) is an offcut from working lead sheets.

Unidentified

Only one fragment (SF 98) cannot be identified to any of the above categories and is probably a small fragment from a larger object.

Discussion

The metalwork assemblage presents a typical array of the small fittings and fragments which become dispersed around sites from the medieval period onwards. While the nails and mounts have been left behind through the decay or dismantling of structures on the site, more recent items, such as the horseshoe and harrow teeth are evidence of later agricultural activity.

The dagger deposited in the foundations of Structure 4 is a notable exception to the scatter of fragmentary everyday objects. While deposits of weapons and other objects in foundation features are perhaps more readily recognised and discussed in relation to Iron Age settlements and pre-Christian religions, various forms of building foundation deposits are still well-attested across central and northern Europe in the medieval period, illustrating the continuation of such traditions (Grau-Sologestoa 2018, 14). Along with the coins deposited at the site this dagger may be further evidence of medieval beliefs or superstitions.

Fragments of ironworking debris and a lead offcut, indicate some of the craft activities which may have been taking place on the settlement, but the lack of tools is notable. This does not necessarily imply tools were not in use, but may suggest such items were not casually discarded. In terms of the site's nature, from the metalwork alone there is nothing to suggest this is not a regular domestic assemblage, but most objects are not diagnostic enough to say otherwise. The potential links to an ecclesiastical site or shrine make the assemblage an interesting comparison to the growing number of settlement assemblages from the period.

Industrial Debris

By Gemma Cruickshanks

A small assemblage of vitrified material weighing around 188g was recovered during excavations at Netherton. Vitrified material can form during a range of high-temperature activities, including metalworking or domestic hearth activity. This assemblage mainly comprises fragments diagnostic of iron smelting and possibly blacksmithing, with a smaller quantity of undiagnostic material which could have formed during a range of processes.

The material was visually examined and catalogued using common terminology (e.g. Crew and Rehren 2002; McDonnell and Milns 2015; Spearman 1997) based upon characteristics such as size, morphology and density. A summary of the assemblage follows and a full catalogue is in the archive.

Two relatively large, dense fragments of iron slag (SF 86a and 174) are characteristic of iron smelting, where metallic iron is extracted from ore in a furnace. The fragments were recovered from deposits (127 and 135) rich in medieval pottery, suggesting this debris may derive from that period too. A single magnetic hammerscale flake was recovered during sample processing of the same deposits (Sample 34; context 135) hinting at the presence of blacksmithing activity too, though such a small object could easily intrude into earlier layers. Three fragments of undiagnostic ironworking slag (Samples 31, context 123; Sample 36a, context 128 and



SF 191, context 135) are too fragmentary to determine which part of the ironworking process they derived from, but provide further evidence of the craft. In addition to the vitrified debris, X-radiography of the metalwork assemblage identified two fragments of iron (SF 16, context 111 and SF 184, context 135) which were not fully consolidated, indicating they are probably offcuts or debris from bloom refining (the process in between iron smelting and blacksmithing where the metallic bloom from the furnace is heated and hammered to form solid iron).

A single fragment of cinder (Sample 42, context 152) is not diagnostic of a particular high-temperature process.

In summary, though this is a small assemblage, it provides valuable evidence of iron smelting, bloom refining and probable blacksmithing. Slag often becomes dispersed throughout contexts over time, making it difficult to know exactly where and when the activity took place. The material itself is not chronologically distinct, as the ironworking process changed little between the Iron Age and relatively recently in rural areas. If we assume a medieval or post-medieval date for this material based on the association of other finds (e.g. medieval pottery and clay pipe fragments), then the presence of smelting slag is significant. The traditional model of medieval and later ironworking places smelting in rural areas and blacksmithing in urban centres (Photos-Jones 2010, 36). However, recent excavations have shown the picture is more complex (ibid., Cruickshanks in prep) and the small glimpse this assemblage provides adds to this emerging picture.

Historical Research

By Morag Cross

The Netherton Cross, Hamilton: towards the biography of an early medieval sculpture

The historical research has unavoidably been restricted to material gathered in 2016 and that available online since then. Apart from a brief précis of the medieval church, the focus is on the early twentieth century biography of the

Netherton Cross. This comprises new material and clarification of the various resting places following its removal from Low Parks in 1921 (not 1926, as has often been stated).

The Hamiltons remade Cadzow as their main seat. Much of the town's background history has been summarised in the excellent 'Historic Hamilton' (Torrie and Coleman 1996), and the Cadzow Castle report (Ewart 2009). The early medieval period, and the Govan School of carving (including the Netherton Cross), are covered in Driscoll's authoritative surveys (2005, 2015). The parish was first known as Cadzow, and took the name Hamilton after its patrons in the fifteenth century (Torrie and Coleman 1996, 14), although the significance of the etymologically earlier 'Cadzow' being attached to the eponymous castle (Gallagher, pers. comm.) requires further study.

Unfortunately, much of Hamilton's medieval history is shrouded in ambiguity. This is partly due to Cadzow and Hamilton both being used for one, or more, castles without it being obvious which site is being referred to (e.g. Torrie and Coleman 1996, 13-15, 16; Gallagher 2009, 21-2; Ewart 2009, 32).

A simple scenario would be that the motte in Low Parks (HES, NS75NW 4) was the twelfth century royal residence where David I signed several charters, and the settlement of Cadzow clustered around it. When more comfort was required, the lords of Cadzow moved closer to the established church-site (NRHE¹, NS75NW 13). They built a new tower house, the 'Orchard', (NRHE, NS75NW 16) beside the parish church, which had always been sited uphill and west of the motte. This formed the nucleus of the church-palace complex (NGR: NS 7264 5592).

The Netherton Cross (NRHE, NS75NW 15), formerly situated on the 'Haugh' or low-lying river bank (at NS 72708 56741, see NLS 1899), is an endearingly-inept production. The unwieldy boss and figures pattern are now badly eroded (Plates 13 and 14), but it is still best described as 'provincial', if not 'crude'. It is generally thought to date from the tenth or eleventh centuries (MacQuarrie 1994, 28-9; Torrie and Coleman 1996, 66; Driscoll 2005, 143; Ritchie

¹ Canmore, National Record of the Historic Environment, part of Historic Environment Scotland. Located at https://canmore.org.uk/



2019). Different origins have been proposed for it, including that an early medieval chapel stood nearby (e.g. Torrie and Coleman 1996, 14, 66; Gallagher 2009, 21; Waddell 1918, 249-50; Wilson 1937, 116-18; Driscoll 2005, 148; Wallace 1975, 45-6). The link between St Kentigern and finding a queen's lost ring at 'Cadzow' was a later addition to the saint's medieval hagiography (Miller nd, 7-9; Waddell 1918, 249; Wilson 1937, 116).

A market cross, boundary marker or religious 'teaching aid' are other possible functions (Miller nd, 68; NSA 270; Torrie and Coleman 1996, 42). Such sculptures were used to mark jurisdictions, church sanctuaries, land-ownership and borders (e.g. Allen 1902, III, 399-400). The 'market cross' idea first appears in 1792 (OSA, 210), although why this tiny settlement, in particular, would require a hefty market cross isn't explained.

David I granted the prebend of Cadzow to Glasgow Cathedral in 1150, and the incumbent priests would have ministered from the parish's traditional spiritual centre (NRHE, NS75NW 13), beside the future Hietown. Comprehensive



Plate 13: Netherton Cross front taken 2015. Photograph by Kevin Mooney 2015.



Plate 14: Netherton Cross rear taken 2015. Photograph by Kevin Mooney 2015.



ecclesiastical accounts are found in the detailed *Resource History* (Dougall 1986), historian A G Miller's (ed. c. 1941) 'Hamiltonia' albums, and the traditional sources (e.g. OSA, NSA and OPS).

Hamilton Civic Society, founded in 1929, assiduously recorded the town's vanishing heritage. They discussed the possibility of an early church at Netherton (around NGR: NS 727 567). In May 1931, Ludovic Mann and A G Miller visited Netherton's 'depressions or (hollows) which suggested ... the site of an early village'. The Society hoped the Town Council would 'expos(e) the site of the old church at Moat Hill' (HL, F19/1, on 9/6/31). The 'Ancient Chapel Theory' appeared in the press reports of the March 1932 AGM, thus gaining wider currency: 'An ancient chapel (related) to the Netherton Cross ... on the Haugh ... was remarked upon by Mr Miller ... Mr Waddell ... had drawn an analogy between (other crosses) in front of chapels. He (is this Miller or Waddell?) was of the opinion that excavation in a westerly direction ... would almost certainly reveal ... a chapel associated with St Kentigern' (Ham Ad 1932). Wilson (1937, 116-8) also placed the earliest church beside the river in his major county history, despite the complete absence of reports of even isolated burials, outside the longestablished medieval graveyard (NRHE, NS75NW 13).

More problematically, Waddell had stated that the church was east, not west of the cross (which stood 'before the west doorway'; Waddell 1918, 250). Miller seems to believe any building should be to the west. Waddell had been prevented by 'shortage of labour' from excavating, as he was writing during WW1. He also raises the interesting question of whether the cross is in its original position, as it has no ancillary foundations, and was just buried in the earth (ibid., 253). Indeed, the lower part of the cross narrows, as if preparatory to entering a socket and it would have required some kind of basal platform to raise it above the surrounding marshy haugh, and increase its prominence in the landscape.

If the cross was actually once elsewhere, further targeted fieldwork might locate any lost support or podium. Chris Ladds (*pers. comm.*) considers that it may have occupied an artificial mound farther south, now surrounded by water. By analogy with the Barochan, Inchinnan, Arthurlie

and Mountblow Crosses, could it have marked a stream or river-crossing? (Driscoll 2005, 147, 150-1, 153-4). Boundaries along watersheds, or watercourses, although now of no wider significance, would have enclosed economically valuable arable land, as well as limits of secular and spiritual authority, or even practically-useful ferry points.

James, Lord Hamilton petitioned Pope Nicholas V in order to 'enlarge and adorn the said church for its erection into a collegiate church' (CPL X, 1, 75-6). There has also been a misunderstanding of the phrase 'to erect', which does not automatically mean 'constructed a new building'. It can just mean that the status of the existing church was raised, to become a college of priests — a budget 'prayer machine' costing its patron less than a monastery, as happened at Hamilton.

The purported earliest chapel 'near to the cross site ... appears to have been lost to (major civil engineering) in the 1970s' (Driscoll et al., 2005, 148; Torrie and Coleman 1996, 14). This relies on the standard Origines Parochiales to verify the church relocation: 'Lord Hamilton built new the parish kirk ... and steeple, all of polished stone' (OPS I, 106). But, this unsourced quotation is actually from William Hamilton of Wishaw's Description of Lanarkshire, compiled to flatter his aristocratic patrons around 1711. The original says that the first Lord Hamilton placed 'his own coat of arms ... on the tops of ... the gavells (gables)' (Hamilton 1710, 17), demonstrating that it was a major renovation or ground-toroof rebuild, rather than physically moving the site. It also raises the question of how reliable William Hamilton is, as a narrator – topographical description, or 'chorography' was a fashionable seventeenth century stereotyped-genre, emphasising the scenic virtues of nobleman's residences, as they were the target clientele (Withers 2004; Fleet 2011). So, Hamilton of Wishaw is to be used with caution.

In summary, the Netherton Cross probably always stood alone, as a secular boundary marker in the Haugh. It may have signified a river crossing, territorial unit or gathering place, and three later parish boundaries (Dalzell, Cadzow, and Bothwell) join just to its east. Parishes as laid out in the earlier twelfth century often reflected secular units of lordship, so it might demarcate



such older civil jurisdictions. Could it have once stood farther east, closer to the junction of the parochial borders? It faces north, as does the similarly sited, and free-standing Barochan Cross (Driscoll 2005, 146-7). This may show that it was aimed at travellers from the north, conceivably from the Strathclyde royal complex at the twin sites of Govan and Partick. Any early chapel has not been found, and neither has any associated burial ground, despite extensive mining and other earth-moving over the centuries.

James Lord Hamilton transformed the old church into a collegiate church between 1451 and 1462 to celebrate his own peerage, and he later added heraldry commemorating his marriage to James III's sister (Torrie and Coleman 1996, 14; Dougall 1987, 1). He either thoroughly upgraded, or demolished and rebuilt the existing edifice. Again, there is no trace of an older graveyard anywhere else, except at this location. Although 'absence of evidence' isn't definitive, it is strongly suggestive that here, subsidence, drainage and canalizing the river has not revealed another cemetery. The palace site was convenient for worship, until it became too convenient, and the entire ecclesiastical complex was removed by the Dukes to exend the palace in 1732. Meanwhile, the motte and cross remained isolated amid Low Parks, as the adjacent Netherton settlement was also removed by ducal decree.

The various interpretations of the interlinked Netherton Cross, medieval collegiate and modern church sites are thoroughly discussed in Dougall (1986, 14-16). The most recent discussion of the removal of the Netherton, and plantation and development of the Hietoun, is Dennison (2018, 18, 128-31). The 'low town', like the eponymous 'Low Parks' was prone to flooding, and it would inevitably develop further uphill in 'Hieton'. This was assisted from the late seventeenth-early eighteenth centuries by the Hamiltons, who felt their tenants' cottages were preventing future palace expansion (ibid., 128-9). Duchess Anne removed 63 cartloads of rubble from Hietoun demolition in 1686 (ibid.) - did this include any (theoretical) pedestal from the Netherton Cross, aiming to recycle such a masonry block?

In order that the present project makes a new contribution to the understanding of the Netherton Cross, a brief 'peripatetic biography' follows. It is now better appreciated that the 'life' of any early Christian carving does not abruptly end at the Reformation. However, the narrative around any such relic would be artificallysevered by considering it only as an art-historical object, detached from its modern surroundings. The Netherton Cross has not been accurately recorded, and the date of its removal from Low Parks is usually misquoted as 1926. In fact, it was taken from the Duke's policies, at his implicit order, in 1921, and spent 5 years stored in the Carnegie Library, which influenced its eventual destination.

The Netherton Cross in the nineteenth and twentieth centuries

The first academic study of 'The Sculptured Stones of Scotland', by antiquary John Stuart, appeared in 1856, where 'It is used as a cow post ... is much worn, and at several places ... is entirely defaced' (Stuart 1856 I, 36). In April 1857 the Burgh Council formed a committee to 'confer with the Duke('s) ... managers as to the preservation of the old stone cross of the ancient Burgh which is standing in a field ... and to report' (HL, BH1/2/5, 8 April 1857)².

In late 1867, another rare mention of the cross appears in the Council's Minutes, coinciding with the publication of Stuart's second volume (Stuart 1867 II, x, xix). This strongly hints that nothing practical was done in 1857. 'The desire of the council (was) that that a railing should be placed round ... the old market cross of the Burgh ...(so) the tracing and carving upon it may be preserved' (HL, BH1/2/5, 14 Nov 1867). As the railings survive, the duke's manager seems to have complied.

In 1894, when discussing the provision of photographs for his forthcoming corpus of The Early Christian Monuments of Scotland' ('ECMS'), J R Allen (1894, 171) gives a table of sizes of each face of the Netherton Cross, without specifying if he included the sub-surface footing. 'ECMS' uses a picture by Edinburgh architectural photographer Alexander A. Inglis, probably taken around 1894 (Allen 1894, 150; 1897, 147; 1903 III, fig 501). The Annans, who had already depicted the Govan Stones (Stirling-Maxwell 1899, preface; Allen 1897, 148n, 151), were based in Glasgow and would have been more logical choices for Allen's specialist commission (Allen 1894, 153-4).

The archives are inaccessible.



The monument also features fleetingly in small, popular guidebooks (MacPherson 1862, 51; Ramblers 1892, 107). In 1903, the Hamilton Herald's 'Christmas Annual' included the cross, using one their own photographs, which also appeared as postcards (Ham Her 1903, 44; 1904). It is shown encircled by 5-bar wrought-iron estate fencing, possibly dating from the Council minutes of 1868 (see above).

The 1903 text was further reproduced in a series on Old Hamilton, probably by historian Alfred G Miller (*Ham Her* 1905). The sculpture appears in the 1911s *Rambles Through Lanarkshire* by architect J J Waddell (1876-1941). He worked for his uncle, the architect P MacGregor Chalmers. who had published the Govan sarcophagus. Chalmers's close friend, Rev J MacLeod, was minister of Govan Old Church with its medieval sculptures.

Waddell's academic study proposed that Mungo encountered the rulers of Strathclyde, (which he equated with Cadzow), at the motte. He also popularised the idea that the cross marked the saint's church on the riverside Haugh (Waddell 1918, 249-50). He does not explain the long gap between Mungo's death (c. 614 AD) and the carving (c. tenth century). Waddell excavated around the cross, but does not say if his drawing is an imagined extrapolation of the visible carving, or an accurate visual record (ibid., 253). His most valuable comments are those on the putative socket stone. The foot is tapered, and the top-heavy sculpture implies that a weighted base was necessary, or a reinforced surrounding pavement as at Keills. The Netherton shaft 'was firmly embedded in gravel' containing 'highlystratified' cobbles and fragments, possibly from some surrounding paving (ibid.). The 2015 excavation found very similar surfacing, which may be contemporary and even co-terminous with that round the shaft. Waddell noted that tools may have been sharpened on one edge (ibid., 252).

The architect James Lochhead (1870-1941) was senior partner of Cullen, Lochhead and Brown, who had designed the Hamilton Council Buildings (1906-14), and was the hidden link between the various committees that managed the cross from 1920 until the late 1930s.

The notorious sale, and lengthy demolition of Hamilton Palace (1919-29), due to undermining, subsidence and spiralling costs, is linked to the transfer of the cross. In December 1919, Hamilton Estates factor, H C Webster, informed the Town Clerk that 'Their graces ... have decided to present the Netherton Cross to the town of Hamilton, and I ... ask you to inform your Provost ... of the same', (HL, BH1/2/11, on 13/1/1921). The Duke autocratically assumed that the burgh should gratefully accept it, and would pay for its removal (it remained in the Haugh). One cynic quipped 'had there been the slightest prospect of the Netherton Cross finding a purchaser (the town) would have been saved the trouble', by its sale (Moth Tim 1920).

The Duke granted 22 acres for recreational use in December 1920, reserving the right 'to remove the continuous iron rail fencing and gates' (HL, BH1/2/11, on 23/12/1920). This was presumably when the Cross's protective-enclosure was removed, leaving it vulnerable. Around 1921, T F C Brotchie, Kelvingrove's museum curator, drew the cross, without its railings (Brotchie 1923, 98-100). Just prior to the strike that March, Councillor J M Graham 'saw the Netherton Cross, and thought something should be done ... as people were beginning to scratch their initials on it', (Moth Tim 1921).

The Provost Sir Henry Keith raised 'the damage ... and suggested that steps should be taken either for (the Cross's) removal or for its preservation', in June 1921 (HL, BH1/2/11, on 14/6/1921). Keith, a wealthy philanthropist, reportedly paid for the rescue, and transport of the cross himself (HL, F19/2, on 7/6/1937). He acted fast and it was moved in July 1921 (HL, Lib Mins 21/5/1926). On 15 July 1921, the cross was placed in storage in the library vestibule, occupying space vacated just weeks earlier when the wartime military finally left (ibid.).

In early 1922, Lochhead asked the burgh to make 'a suitable stand ... for the erection of the cross in the museum,' being planned for the basement (HL, Lib Mins 29/9/21; 14/2/22). Although they clearly intended to place it indoors, they then recanted, and stated 'it should not be placed within the library buildings', without any further explanation (ibid., 27/7/22). In view of the ongoing poverty and unemployment relief



schemes surrounding them, it was unsurprising that the (relatively unimportant) fate of the cross was constantly deferred to the council.

In October 1925, councillor A P Smith moved to resite the cross at the parish church. In November, Lochhead's architectural firm estimated the work at £30 (HL, BH1/2/11, on 13/10/25, 10/11/25).

The Kirk Session acquired legal 'custody ... and control' of the churchyard in October 1925, (HPC, KS 95, 132-3). The Town Clerk asked on 20 October, if the cross, 'now lying in the Public Library, (could) be erected on the main avenue of the Parish Churchyard'. The Session were 'very glad' to house the cross, 'if you will send a sketch showing how the cross is to be erected', because a local paper was proposing 'a base made of concrete', which would not match its surroundings (NRS, CH2/465/52, 124). The modern pedestal is now as much a part of the cross as the ancient carving. It 'reads' far better as a prominent, note-worthy monument with the plinth's additional bulk and height, emphasising that, confirming such a footing may originally have existed. But who designed this monolithic, trapezoidal new block?

Lochhead had been an elder at Hamilton Old since 1922, and had joined the fabric committee (NRS, CH2/465/18, 442-3; 454; HPC, KS, 75-6). He was one of the churchyard's managers from 1926 ibid, 157), and due to being so closely involved, seems the obvious candidate for having designed the cross's new substructure.

When the sculpture left the library on 15 March 1926, the sense of relief was palpable (HL, *Lib Mins* 21 May 1925). The new plinth was blank when the church re-opened on 21 March after extensive renovation ((NRS, CH2/465/52, 114-17), with the inscription added later (Dougall 1987, 26; *Ham Adv* 1926). It reads *The Netherton Cross / removed from its original / site in the North Haugh / and re-erected here / March 1926*. This has been misinterpreted to mean that the monument left the Low Parks in 1926, not 1921, and its five-year sojourn in the library has been forgotten.

The incorporation of the sturdy foundation-stone could render today's presentation of the cross as more closely matching its creator's intentions. If it was once a bipartite artefact, its now-lost support has been reinstated to positive effect.

The Civic Society (co-founded by Lochhead in 1929) wished to move the monument under cover to prevent erosion as long ago as 1938, but could not afford the estimated £60-£70 to commission a cement cast (HL, F19/2, on 7-28 Mar 1938). Besides the new stone support, the sculpture has acquired a concrete 'twin', marking the original site, now marooned on the grass verge at the M74 slip-road. In a misleading press report from 1968, librarian William Stewart credited the Civic Society with installing the headstone-shaped stele (*Ham Adv* Friday, 8th March 1968). Tellingly, the Society minutes do not mention the marker, implicitly placing its ownership elsewhere.

On current evidence, it appears the Council created the slab, but their records are currently pandemic-restricted. Low Parks were acquired by the Council (date not researched), and pictures from 1936 depict the fine-grained, artificial plaque, within iron and barbed-wire fencing (Wilson 1937, 120-1). The long grass inside the railings confirms the marker was well-established, and the surroundings were being ploughed. The memorial, which has a stippled surface outlined by an incised groove, is now uprooted by small trees, and the fencing is partially-missing. The inscription: *This stone marks the site of Netherton Cross* was incorporated into the original mould.

The cross was plucked from Low Parks in 1921, intended as a museum exhibit that never materialised, was re-mounted in 1926, and officially designated an Ancient Monument in 1933. The erosion of the stonework was raised first in 1857, and even the once-sharp outlines of the pedestal letters are now very indistinct. The ancient details have visibly deteriorated since photos taken in the 2000s, scoured by the dangerously-exposed position of the cross. As was first mooted in the 1920s, the entire edifice now urgently needs to be moved under cover, and if desired, replaced with a replica (first proposed in 1938). Time is running out to save Hamilton's earliest medieval artefact.



Discussion

By Natasha Ferguson

Prior to the intrusion of the M74 motorway the settlement site of Netherton was in an ideal location, situated on a wide river terrace overlooking a meander of the River Clyde surrounded by agricultural land. Lithic evidence from the excavation, although minimal due to continued settlement over centuries, suggests a prehistoric site existed here and no doubt exploited the resources available along the banks of the river.

At some point the Netherton stone cross was placed here and became a focal point in the medieval landscape. Carved in the tenth century and recognised as part of the 'Govan school' tradition it appears to have been without a base and instead directly placed into the ground, or at least within a compacted surface of cobbles and stone. This seems an odd occurrence and suggests the cross either had an original location elsewhere and was moved to Netherton after the tenth century, or somehow lost its base before being recorded in more detail in the nineteenth century. There is a suggestion from a radiocarbon date from a large pit in Structure 1 that there may already have been occupation or settlement in the area from the latter part of the tenth century into the beginning of the twelfth century. It seems likely that, assuming the marker stone shows the position of the cross where it stood before being moved in 1921, the cross was moved to this location sometime in the seventeenth century or soon after. A possible date for its movement may be 1686 when the Duchess Anne removed 63 cartloads of rubble from the Hietoun demolition. If the cross had indeed been moved in the seventeenth century it is unlikely to have traveled far and may have simply been re-erected in what was deemed to be a more appropriate location, as it was to be again in 1921.

The cross placement, although seemingly isolated to the modern eye, played an important role as a marker defining both physical and spiritual boundaries. Described as a 'countryside cross' (see Cross Historical Background) it sits isolated from the usual setting of a churchyard acting as a boundary marker and beacon to draw attention

to changing jurisdiction or land ownership. The historic location of the Netherton cross is indeed situated at the boundary of three parishes and may have marked the location of a fording point on the river and routeway through the landscape (Figure 10).



Plate 15: The present day location of the marker stone.
Photographed by Morag Cross, 2020.

It is also important to take into account the twelfth century motte and bailey to the south, now completely divorced from the site by the motorway. The motte is a central element in the formation of this elite medieval landscape, strategically located to control routeways including the river, and dominating the landscape projecting a symbol of Royal authority. The growth of settlements in close proximity to mottes as part of the medieval complex of administrative and trading centres can be seen at Rattray, Aberdeenshire (Murray et al 1993) and the Bass of Inverurie (Carter 1999; Marshal 2017). While the excavation only uncovered the very fringes of this settlement in its later phases it is likely Netherton took this form from the twelfth - thirteenth centuries onwards, with the cross marking the position of a routeway and guiding the movement of people from the river towards the motte. In this setting it is possible to reconnect the cross within the wider medieval landscape, with it acting as a visual link bridging the secular and spiritual spheres.



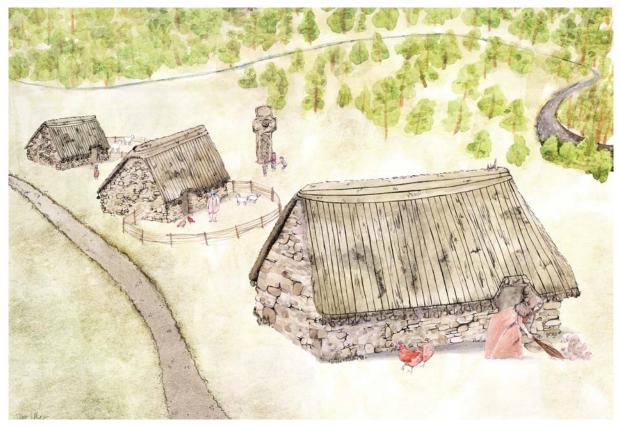


Figure 10: Artist's reconstruction of the structures at the site of Netherton Cross. © Jennifer Colquhoun.

While there is little evidence to inform the character of settlement that clustered around the Motte in the Low Parks and Netherton Cross, it was possibly known originally as Cadzow, then later or interchangeable with Netherton, but this remains uncertain. One feature, a large pit containing fuel waste from cereal drying or cooking of oat and barley grains (123/122). provided radiocarbon dates suggesting activity from the late tenth to early twelfth centuries. The settlement, in whatever form it took by the post-medieval period, was swept away in the eighteenth century by improvements to the estate by the Dukes of Hamilton, transforming it into well-ordered and symmetrical parkland with wide avenues, enclosures, and the expansion of the lordly residence of Hamilton Palace. The Ordnance Survey Name books recording in the 1850s refer the settlement around the cross as:

"The Houses of the village of Netherton are said to have stood as late as 1790. No traces of any buildings now exist. The ground around the cross is ornamental or Pasture. Some large fruit trees which belonged to Netherton are near the Cross" (HES, Ordnance Survey Name Books OS1/21/40/18)

The structures encountered during excavation represent the last vestiges of late medieval settlement, or at least the surviving fringes of it that were not completely subsumed under the M74 motorway. The presence of sandstone accumulations and the trace remains of foundations under a layer of demolition rubble and debris revealed the faint outline of four structures. Structures 2 and 3 were small in size and likely to represent outbuildings rather than dwellings. However, Structures 1 and 4 were more substantial and while much of the structural stone had been robbed away, with the exception of some robust clusters, the compacted surfaces of an interior floor and relating occupation debris helped to define their character. Radiocarbon dated samples from a posthole (112/115) and a possible waste pit (120/121) suggest that settlement from the early fourteenth century ended by the mid seventeenth century. The similarity of the compact pebble and cobble surface around Structure 1 and the surface excavated by Waddell directly around the cross in the early twentieth century demonstrates the close proximity of the structures to the cross. It may also suggest the cross, in the absence of a socket stone base, was potentially moved to the marked location after Structure 1 went out of



use some time by the middle of the seventeenth century. During the recent investigations the baulk around the marker stone was preserved in situ so it was not possible to confirm the relationship between the Structure 1 compacted surface and that discovered by Waddell, it seems likely though that they are one and the same surface.

The surviving features suggest sub-rectangular buildings with a locally sourced sandstone block foundation, possibly recycling from other structures in the area including the use of broken up monumental stones SF 173. A small quantity of square sectioned iron nails, typical of the late medieval/post-medieval period, were recovered across all four structures indicating some form of wooden frame within the structure, although they were not in significant concentrations to offer a more conclusive interpretation. The pleasingly worn threshold stone and corresponding pivot stone SF 246, repurposed from a well capping suggests a south-facing aspect, at least for Structure 4. No roofing slate or window glass was identified in the assemblage indicating a thatch roof, although this would be supported further by the presence of stone weights. One iron object, a U-shaped staple SF 210 may represent a roof fixing, although the likelihood is that such fixings would have been organic rather than metal (Historic Scotland 1998, 21)

The pottery assemblage was largely comprised of locally or regionally made domestic wares of jugs, bowls, and storage jars ranging in date from 1450 AD to 1650 AD, which compare well with the radiocarbon dates from Structure 1. This date range was complimented by a small assemblage of coins also recovered from occupation debris of the larger structures. Although many were very worn and were only recognisable from their size and form as generally seventeenth century copper coinage, it was possible to identify the earliest coin a late sixteenth century hardhead (c. 1588) or turner (c. 1614-1623) of James VI/I (SF 30) from Structure 1, context 111, and a later Charles II bawbee (c. 1677-1679) recovered from an underfloor deposit 168 in Structure 4.

Both structures were surprisingly rich in dateable material culture pointing firmly to late medieval to post-medieval dwellings supported by agricultural activity as suggested by a small

volume of carbonised cereal remains relating to oats and barley. Structure 1 did produce evidence of metalworking on the site with the presence of iron slag and some hammerscale providing valuable and rare evidence of iron smelting, bloom refining and probably blacksmithing on site during the medieval period. There were also the remains of a small iron tang SF 123B, possibly part of a tool in Structure 1, and in Structure 4 trimmings of lead sheet SF 118 which may have represented repairs rather than any form of small-scale industry, as with the iron slag.

The structures are representative of rural settlement in lowland Scotland in the postmedieval period, but Structure 4 offered an unusual deposit of artefacts within a foundation level (168) situated underneath a flooring layer (156) and close to the worn threshold stone SF 246. Amongst the more recognisable occupation debris of green glaze pottery sherds was a collection of objects not found elsewhere across the site. This included a whetstone of finegrained sandstone SF 253, a spindle whorl made of cannel coal SF 255, a possible gaming piece or counter crafted from a sherd of green glaze pottery SF 224, two seventeenth century coins, with one identified as the Charles II bawbee SF 228. The final artefact was an iron object identified by its well-defined sloping shoulders as indistinguishable from an Iron Age dagger (see Cruickshanks, above; Babb 2001; Hunter forthcoming), with potential traces of organic residue suggesting it was buried with some form of sheath. The condition of the dagger is heavily corroded yet stable suggesting limited disturbance and therefore deliberate deposition rather than being lost or discarded.

The practice of depositing 'special' objects in medieval and post-medieval buildings is well documented and was a ritual performed to protect the building and its inhabitants (Gilchrist 2012, 228). In this case there appears to have been a deliberate selection of objects placed here as while the whetstone, whorl and gaming piece are distinctly domestic objects with a practical purpose, they also have the potential to represent a personal connection to an individual, activity, or place that would make them 'special' to the occupants. The question of the daggers' potential antiquity as a prehistoric object deposited within a post-medieval setting complicates this picture



further. Knight (et al 2020) approach the presence of anachronistic objects in two ways, firstly, that the objects remained in continued circulation as active or curated objects, or were discovered in the past and transformed and redefined with new meaning in a new context (2020, 3). In the context of Netherton, if indeed an Iron Age dagger, it is perhaps more likely the object was discovered and its significance understood to be special in its 'otherness' rather than in recognition of its antiquity. Reuse of prehistoric objects as depositions in medieval settings has been recorded in excavations of medieval churches in England (Boddington 1996, 21), and lithics such as arrowheads have traditionally been identified as 'elf-bolts' and long recognised for their malevolent magical properties (Merrifield 1987, 10).

Regardless, as a prehistoric or medieval object the dagger fits well into the ritual setting together with the other objects in this foundation deposit, it being an object imbued with its own symbolism of power and status, worn close to the body for personal protection or used in activities such as hunting (Gilchrist 2012, 92). Recognising the special or talismanic qualities of this dagger therefore as a protective object was not mutually exclusive and would have been further enhanced by including it within a ritual act to protect the household from worldly and magical harm (Gilchrist 2008). The deposition of these objects under the foundation level of Structure 4 binds the physicality of the household to the spiritual wellbeing of the occupants. It is a ritual that affirms this space as a place of safety for them and generations to come. Did the proximity of the Netherton Cross influence this activity? Was a similar process enacted when the cross was moved or re-set within the compacted gravel surface? Was the Christian context of the cross understood or re-imagined? While enacted at a domestic level the ritual deposition was in no way incongruous within the wider ritual landscape, with the Netherton Cross encompassing both religious and supernatural spheres.

Conclusion

There was an expectation prior to the archaeological works carried out by GUARD Archaeology Ltd across the M8/M73/M74 Motorway Improvements Project that the level of disturbance from the original construction of the M8/M73/M74 motorways would be considerable. Although areas of high archaeological potential had been highlighted for further investigation the level of survival of any remains was not anticipated to be significant. This was generally the case at Bargeddie and Shawhead East with discrete remnants of prehistoric activity in the form of pits, and postholes containing evidence of some post-medieval material including pottery and clay tobacco pipes. These features represented isolated pockets of archaeology divorced from their wider context by centuries of development exponentially changing the surrounding landscape. However, their very presence demonstrates the importance of carrying out such archaeological works to ensure such archaeology is recorded for posterity before it is destroyed. While little can be said about the isolated pits from other sites investigated during the works, the site at Netherton was more substantial, and partly due to its potential relationship with an early cross stone that once stood here, was more significant.

The historic location of the Netherton Cross, now marked by a monolith of concrete beyond the barrier of the M74 between Junctions 5 and 6, highlighted the potential for associated archaeology, along with the nearby Low Parks Motte Scheduled Monument. While the presence of buildings around the cross had been recorded up until the late eighteenth century there was very little to suggest that much would exist, apart from scattered remains perhaps hinting at former land-use. However, under an extensive layer of rubble and blaes from earlier road construction was sealed the partial remains of four structures and relating occupation layers revealing significant volumes of late medieval/ post-medieval pottery as well as copper coinage, clay tobacco pipes, and other domestic materials. The archaeological evidence firmly placed the final phases of activity within the structures to the late seventeenth century, with locally sourced pottery providing a date range between 1450 AD and 1650 AD. The predominately domesticwares and environmental evidence indicating the cultivation of oats and barley, together with evidence of small-scale iron smelting and blacksmithing has added to our knowledge of rural lowland post-medieval settlement which



has a limited picture in the archaeological record of Scotland.

What has marked this site as exceptional is a small foundation deposit located under the compact interior floor of Structure 4. Here a small group of post-medieval objects, a spindle whorl, a ceramic gaming piece, two coins, a whetstone, and an iron dagger possibly of prehistoric date, representing various aspects of everyday life, were selected and deliberately deposited under the floor and near the south-facing threshold. The reason for selecting these objects purposely of this deposition will never be fully understood as it is a highly personal process, but the ritual act of 'special deposits' within foundation deposits to protect a household from worldly and magical harm is recorded across Medieval Europe. The possibility of the dagger as an Iron Age object being redeposited in a post-medieval context creates additional layers of complexity relating to the magical properties of objects and how they may have been understood and 'curated' in medieval and post-medieval society.

These excavations have highlighted the potential of surviving archaeological remains, even in areas that appear at first glance to be overwhelmingly impacted by industrial expansion. The site at Netherton in particular has highlighted the importance of engaging with archaeology on the fringes of development and recognising it as an opportunity to enhance our understanding of rural settlement and everyday ritual practice, creating and maintaining a sense of place and cultural identity despite the ensuing development around us.

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Finds and Archives

The finds have been declared to the Treasure Trove Unit, to be dealt with by the Scottish Archaeological Finds and Allocations Panel, and the archive will be deposited with the National Record of the Historic Environment, Edinburgh.

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Appendices

Appendix 1: Detail of archaeobotanical remains from the samples

25	131	PH [136]	7	0	25ml	z																	20+	
24	137	PH [138]	7	0	20ml	z															30+			
23	128	slot 7 str1	6	0	30ml	z														15+	20+			2
22	129	PH [132]	7	0	40ml	z														2+				2+
21	128	slot 3 str1	Ŋ	0	20ml	z														20+			5+	
20	128	slot 3 str1	9	0	10ml	z														20+	10+			
19	128	slot 8 str1	9	0	40ml	z														20+	30+			
18	128	slot 6 str1	4	<2.5ml	10ml	Y ch						1 (0.02g)								2+	4			
17	128	slot 4 str1	10	0	20ml	z														20+	10+			1
16	128	slot 2 str1	Ŋ	<2.5ml	5ml	Y hznt											1 (<0.01g)			20+	5+			
15	127	silt below 113	∞	0	15ml	z														10+	30+			ю
14	125	PH [126]	7	<2.5ml	30ml	z		1															5+	
13	120	pit [121]	11	2.5ml	15ml	Y ch		8			1 (0.04g)	1 (0.02g)								2+	2+			
12	118	PH [119]	2	<2.5ml	10ml	z																		1
11	116	PH [117]	8	0	10ml	z															10+			
10	112	PH [115]	10	<2.5ml	15ml	Y hznt											1 (0.02g)			2+	2+		1	
Sample	Context	Feature	Sample Volume (litres)	Total CV	Modern	Radiocarbon Y/N	Common	oat	barley		oak	hazel	alder	blackthorn			hazel nutshell	heather						
							Carbonised Cereal Grain	Avena sp.	Hordeum vulgare sl.	Charcoal	Quercus	Corylus	Alnus	Prunus spinosa	Indeterminate	Carbonised Wild Resources	Corylus avellana nutshell	Calluna stems	Other Remains	Clinker	Coal	Burnt bone	Modern seeds	Earthworm egg capsules



	Sample	25	26	27	28	29	30	31	32	33	34	35	36
	Context	131	140	113	113	130	143	123	146	135	135	147	128
	Feature	PH [136]	PH [141]	rubble	rubble	PH [139]	deposit str3	pit [122]	silt str2	below 128 str1	below 128 str1	below rubble 113	silt str1
	Sample Volume (litres)	7	0.5	9	4	2	11	18	5	7	9	17	12
	Total CV	0	0	0	0	<2.5ml	<2.5ml	2.5ml	0	0	0	<2.5ml	<2.5ml
	Modern	25ml	<2.5ml	20ml	10ml	20ml	15ml	20ml	5ml	10ml	5ml	5ml	5ml
	Radiocarbon Y/N	z	z	z	z	z	z	Y ch	z	z	z	z	Y ch
Carbonised Cereal Grain	Common												
Avena sp.	oat					Н		2					
Hordeum vulgare sl.	barley							1					
Charcoal													
Quercus	oak						2 (0.15g)	2 (0.08g)				1 (0.05g)	
Corylus	hazel												
Alnus	alder							1 (0.01g)					
Prunus spinosa	blackthorn												1 (0.13g)
Indeterminate													
Carbonised Wild Resources													
Corylus avellana nutshell	hazel nutshell												
Calluna stems	heather												
Other Remains													
Clinker				5+	20+		100+	10+	5+	10+	5+		
Coal			2	2+	20+		20+	40+	1		3	30+	30+
Burnt bone													3 (0.22g)
Modern seeds		20+	1					1					
Earthworm egg capsules					П				1				



Appendix 2: Catalogue of animal bones

Context	SF	other	species	bone	part	details	tooth wear stage (after Grant 1982)	condit score (larger fragments only)
111	51		cattle	tooth	molar	cusp fragment; enamel fragments		9
113	97	Slot 8	cattle	tooth	М3	lower third molar fragment	g	9
113	161	Struc 1	?ungulate	?tooth	enamel	?tooth enamel fragment		
113	161		indeterminate mammal			1 tiny calcined fragment		
113	161		indeterminate mammal			6 small unburnt fragments		
113	179		ungulate	tooth	enamel	12 small enamel fragments		
123	162		ungulate	tooth	enamel	1 enamel fragment		
128	91	Slot 3	large ungulate	innominate	ilium	1 fragment		10
128	91	Slot 3	large ungulate	shaft		2 conjoining fragments; ch sag; possible knife cuts/ scratches		10
128	91	Slot 3	indeterminate mammal			3 recently broken fragments		
128	93	Slot 3	cattle	tooth	incisor	some wear; abraded		8
128	116		cattle/horse	L femur	distal	v. poorly preserved distal fragment		8
128	121		cattle	tooth	up M	fragmenting molar		6
135	132		large ungulate	shaft		very poor condition; flaking		6
135	110		horse	tooth	up M/PM	in wear; flaking		9
135	149	Slot A; St.1	cattle	tooth	lo M	in wear; flaking condition		7
135	144		cattle	tooth	up M	in wear; flaking condition		7
135	171		horse	tooth	up M/PM	very poor condition; flaking		5
135	187		horse	tooth	PM2	premolar; in wear		10
135	188		horse	tooth	up M	probably M2; in wear		10
135	189		horse/cattle	tooth	M/PM	fragment		8
144	137	Str. 2	sheep/goat	tooth	lo M1/2	molar; in wear	g	10
152	245		sheep/goat	R tibia	distal	fused; calcined; & probable shaft fragment		9
183	213		cf cattle	R femur	distal	v poor; abraded		5



Appendix 3: Detail of pottery sherds

SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
1	TR52	Unstrat	1	SWGW	1				17.8	lightly reduced with green glaze
3	TR122	Topsoil 054	1	SPMRW				1	31.2	abraded green glaze
4	TR126	Topsoil 054	1	SPMRW		1			56.1	flat base with kiln stacking scar on underside
5	TR139	Topsoil 054	1	SPMRW				1	21.4	neck with cordon
7	Netherton Cross	111	1	SPMRW				1	8.6	Green glazed fragment
8	Netherton Cross	111	1	Local				1	3.3	spall - not full thickness
10	Netherton Cross	111	1	tile	1				19.2	smooth fabric with curving rough surface - possible pantile fragments
12	Netherton Cross	111	1	Local				1	6.4	thin walled, reduced core, green glaze
13	Netherton Cross	111	1	Local				1	2.1	thin walled spots of clear glaze
14	Netherton Cross	111	1	SWGW				1	4.6	undecorated
15	Netherton Cross	111	1	SWGW				1	2.8	reduced with white margin & green glaze
17	Netherton Cross	111	1	RGW				1	3.1	thin walled, reduced with green glaze
18	Netherton Cross	111	1	RGW				1	9.2	thin walled reduced with brown glaze
19	Netherton Cross	111	1	Local			1		31.9	strap handle with green & brown glaze
23	Netherton Cross	111	1	SPMRW				1	12.1	green/brown glaze with spalling
24	Netherton Cross	Unstrat	1	RGW				1	0.7	thin walled, reduced with green glaze
26	Netherton Cross	111	2	SWGW	2				36.5	join, rim from jug or bowl, glazed on interior with handle scar for handle on rim
27	Netherton Cross	111	1	SPMRW					38	thin walled light green glaze
32	Netherton Cross	111	1	Local				1	2.9	undecorated
33	Netherton Cross	111	1	SPMOW		1			30.8	thick walled, purple glaze
33	Netherton Cross	111	1	SPMRW				1	12.6	abraded green glaze
34	Netherton Cross	111	1	Local				1	0.8	undecorated
35	Netherton Cross	111	1	RGW				1	3.3	thin walled, reduced with green glaze
36	Netherton Cross	111	11	SPMRW				11	3.3	spalls/fragments
37	Netherton Cross	111	1	SWGW				1	11.6	reduced with white margin and green glaze
41	Netherton Cross	111	1	Local	1				27.5	thick walled with black exterior*
42	Netherton Cross	111	1	Local				1	3.7	thin walled with light green glaze on interior



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
43	Netherton Cross	111	1	SPMRW				1	13.7	body sherd with handle thumbed terminal
44	Netherton Cross	111	1	Local		1			52.9	flat base, kiln scar on underside
45	Netherton Cross	111	1	SWGW				1	4.6	reduced with white margin
46	Netherton Cross	111	1	Local				1	3.3	clear glaze
46	Netherton Cross	111	1	SPMRW				1	3.1	green glaze frags
48	Netherton Cross	111	3	Local				3	1.9	undecorated fragments
53	Netherton Cross	111	2	RGW				2	5.6	green glaze fragment
55	Netherton Cross	111	1	Local				1	21.9	thin walled reduced with dark green glaze
58	Netherton Cross	111	1	SPMRW				1	1.5	reduced with green glaze
60	Netherton Cross	111	1	SPMOW				1	12.8	green/brown glaze interior/exterior
62	Netherton Cross	113	1	RGW		1			13.7	thick walled with green glaze on interior and exterior, possibly from a bowl
63	Netherton Cross	113	1	SPMOW				1	7.3	orange fabric with abraded brown glaze on interior and exterior
65	Netherton Cross	113	2	Local				2	11	slightly reduced interior, undecorated with abraded exterior
65	Netherton Cross	111	3	RGW			1	2	28.1	1 small rod handle with slight central groove, 2 sherds that join with incised combed wavy decoration, lightly reduced with light green glaze
66	Netherton Cross	113	1	SPMOW				1	1.8	smooth orange fabric, heat skin?
69	Netherton Cross	111	1	SWGW				1	9.5	possible fuming/smoke on exterior -cooking pot?
70	Netherton Cross	111	3	SPMRW				3	7.1	reduced with no glaze
71	Netherton Cross	111	1	SPMRW				1	2.3	unglazed spall
72	Netherton Cross	111	1	SPMOW				1	4.7	thick walled, reduced - maybe part of flat base
73	Netherton Cross	111	1	SPMRW				1	4.5	thick walled with green glaze
74	Netherton Cross	111	2	SPMOW			1	1	35.1	grooved strap handle, green/brown glaze
75	Netherton Cross	128	9	SPMOW			2	7	53	grooved strap handle badly abraded, green/ brown glaze
75	Netherton Cross	128	1	SWGW				1	1	thin walled, reduced with green glaze
76	Netherton Cross	128	2	SPMOW			1	1	43.4	rod handle, green/brown glaze



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
77	Netherton Cross	113	1	Local			1		85.3	large grooved strap handle terminus with plug through wall of vessel, reducedinterior with green glaze on exterior
78	Netherton Cross	113	1	SPMRW			1		49	grooved strap handle terminus with pronounced thumb impressions on interior and exterio, reduced with light green glaze
79	Netherton Cross	128	2	SWGW				2	7.2	thin walled, reduced with white margin, brown glaze
85	Netherton Cross	127	1	SPMRW			1		38.9	strap handle glazed on interior possibly skillet?
87	Netherton Cross	128	2	SWGW			1	1	29.2	grooved strap handle, reduced with white margin, green glaze
87	Netherton Cross	128	1	SPMOW				1	4.3	undecorated heat skin?
92	Netherton Cross	128	5	SPMRW				5	38.4	lightly reduced with green glaze, 2 with neck cordon
94	Netherton Cross	113	4	SPMRW				4	11.7	4 fragments/spalls, two join, reduced core, abraded brown glaze
96	Netherton Cross	128/ 113	1	Local				1	1.6	thin walled, undecorated
96	Netherton Cross	128/ 113	1	SWGW				1	4	reduced core with light green glaze with brown stripes
99	Netherton Cross	128/113	2	SWGW				2	8.5	(113) thick walled, reduced with white margin, green/brown glaze
99	Netherton Cross	128/113	2	Local				2	5.9	(128)1 with brown glaze, the other reduced spall
100	Netherton Cross	128	1	Local		1			12.1	flat base with reduced interior
101	Netherton Cross	128	2	SWGW				2	5.3	reduced with white margin, same sherd
102	Netherton Cross	128	1	SPMRW				1	19.7	thick walled, glaze on interior & exterior possibly from a bowl
103	Netherton Cross	128	1	SPMRW				1	9.4	green & brown glaze
104	Netherton Cross	128	1	SWGW				1	2.6	reduced with white margin
105	Netherton Cross	129	3	SPMRW				3	5.9	1 thin walled, the others spalls
109	Netherton Cross	128	3	SWGW	1			2	11.1	rim fragment, reduced with white margin
109	Netherton Cross	128	15	SPMRW				15	42.6	5 sherds & 10 spalls/ fragments
112	Netherton Cross	111	1	SPMRW				1	0.4	reduced fragments
113	Netherton Cross	128	1	SPMOW	1				14.6	rim with heat skin or burnished -post-med
115	Netherton Cross	128	1	SPMOW				1	6.8	brown glaze



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
115	Netherton Cross	128	8	SPMRW				8	100.9	thick walled, abraded glaze
117	Netherton Cross	128	2	Local				2	6.6	1 with two cordons and green glaze, the other has brown glaze
117	Netherton Cross	128	5	SWGW			1	4	17.5	grooved strap handle
117	Netherton Cross	128	6	SPMOW				6	14.1	brown/purple glaze
119	Netherton Cross	128	6	SWGW				6	83.7	thick walled, thumbed base of handle
119	Netherton Cross	128	2	SPMOW		1		1	17.1	thick base
122	Netherton Cross	128	8	Local				8	36.2	thick coarse fragments with brown glaze
122	Netherton Cross	128	5	SPMRW				5	35.5	thick walled
122	Netherton Cross	128	1	SWGW				1	2.7	reduced with abraded glaze
134	Netherton Cross	123	1	SWGW		1			42.7	thick walled, reduced core, wear on base
135	Netherton Cross	144	1	modern	1				17.2	orange fabric, impressed decoration -flower pot?
135	Netherton Cross	144	3	SPMRW				3	44	reduced with green glaze
139	Netherton Cross	135	1	SPMRW			1		13.7	grooved strap handle fragment, reduced with green/brown glaze
140	Netherton Cross	135	1	SWGW		1			16.3	thick walled, reduced with white margin and green glaze
141	Netherton Cross	135	1	Local				1	5.6	reduced core light green/ brown glaze, handle terminal pad
143	Netherton Cross	135	1	SPMOW			1		14.5	grooved strap handle, reduced core abraded green/brown glaze
145	Netherton Cross	129	1	SPMOW				1	1.8	spall/fragment
146	Netherton Cross	113	1	SWGW				1	2.5	reduced with white margin
147	Netherton Cross	113	1	SWGW				1	11	reduced with white margin and green glaze
148	Netherton Cross	135	1	Local				1	14.4	undecorated with rilling/ throwing marks, from the neck of a jug?
150	Netherton Cross	113	1	Local				1	1.5	reduced and undecorated
151	Netherton Cross	113	1	Local				1	7.8	smooth reduced fabric with green/brown glaze
158	Netherton Cross	unstrat	2	Local		1		1	33.8	flat base, glazed interior
158	Netherton Cross	unstrat	2	RGW				2	3.5	thin walled, reduced with green glaze
160	Netherton Cross	113	1	SPMOW	1				11.6	possible rim, thick reduced farbic with green/brown glaze
163	Netherton Cross	123	1	Local		1			33.4	flat base
163	Netherton Cross	123	4	SPMRW				4	17.2	green glazed body sherds



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
165	Netherton Cross	135	2	SWGW				2	11.9	reduced with white margin and abraded green glaze
166	Netherton Cross	135	1	Local				1	8.6	rough fabric, reduced core, green glaze
167	Netherton Cross	135	2	SPMRW				2	11	thick walled, reduced with green glaze
169	Netherton Cross	135	3	SWGW				3	10	reduced with white margin, abraded
170	Netherton Cross	135	3	RGW			1	2	20.9	lightly reduced rod handle with green glaze
175	Netherton Cross	135	3	Local				3	15.2	reduced with green glaze
176	Netherton Cross	135	2	SWGW				2	7.3	reduced with white margin and abraded green glaze
177	Netherton Cross	135	1	SWGW				1	16.4	reduced with white margin and green/brown glaze
178	Netherton Cross	135	1	SPMRW				1	5.9	reduced with brown glaze
181	Netherton Cross	128	1	SWGW				1	12.4	reduced with white margin
182	Netherton Cross	128	1	SPMOW		1			20.5	thick flat base
185	Netherton Cross	135	1	SWGW				1	1.8	green glaze on interior and exterior
190	Netherton Cross	135	4	SPMOW			2	2	19.4	reduced fabric with green glaze, handle terminal fragments
194	Netherton Cross	unstrat	4	Local				4	47.6	1 roughly shaped disc with glaze on both surfaces
195	Netherton Cross	unstrat	3	SWGW	1			2	10.4	flat everted rim, cooking pot**
195	Netherton Cross	unstrat	4	SPMRW				4	20	unglazed fragment
196	Netherton Cross	unstrat	2	SWGW		1			23.5	reduced with green glaze, one flat base with kiln scar on underside
196	Netherton Cross	unstrat	2	SPMOW		2			37.1	two splayed bases
197	Netherton Cross	unstrat	1	SWGW		1			7	undecorated
197	Netherton Cross	unstrat	1	SPMRW					1.3	spall/fragment
200	Netherton Cross	152	8	Local				8	321.8	All join, reduced interior with yellow/brown glaze on exterior - jug, same vessel as SF254
201	Netherton Cross	152	1	Local				1	10.4	Reduced interior with yellow/brown glaze on exterior - jug, same vessel as sf 200 & 254
202	Netherton Cross	unstrat	1	SPMRW				1	13.1	abraded green glaze
207	Netherton Cross	152	3	Local		1		3	198	flat base with reduced interior, stacking scar on underside, evidence for knife trimming, 2 body sherds from same vessel



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
207	Netherton Cross	152	1	RGW				1	8.3	reduced body with abraded green glaze
211	Netherton Cross	149	2	SWGW				2	2.7	reduced with green glaze - 1 spall
212	Netherton Cross	183	1	SWGW				1	6.6	abraded
214	Netherton Cross	152	3	Local				3	87	Reduced interior with yellow/brown glaze on exterior, faint incised wavy decoration - jug, same vessel as sf 200 & 254
215	Netherton Cross	152	5	SPMRW				5	4.9	spall/framents
216	Netherton Cross	182	14	SPMRW				14	11.4	thin walled. Lightly reduced with light green glaze - mainly spalls/ fragments
217	Netherton Cross	182	1	SWGW		1			23.6	flat base, glazed on both surfaces - joins sf 222
217	Netherton Cross	182	2	SPMOW				2	33	join, hard fired abraded , thumb terminal for handle
218	Netherton Cross	182	3	SPMRW	1			2	12.3	rim with cordon, badly abraded
219	Netherton Cross	152	2	SPMRW				2	11.8	spall/fragments
220	Netherton Cross	152	4	Local				4	22.1	All join- reduced interior with yellow/brown glaze on exterior - jug, same vessel as sf 200 & 254
222	Netherton Cross	182	1	SWGW		1			26.1	flat base, glazed on both surfaces -joins sf 217
223	Netherton Cross	168	2	SPMRW				2	62.3	green glaze
224	Netherton Cross	168	1	Local				1	6.9	thin walled shaped into a disc 24 mm in diameter, slightly reduced fabric with abraded yellow/ brown glaze
226	Netherton Cross	168	1	SWGW				1	12.9	heat skin on interior
227	Netherton Cross	168	3	spmrw				3	10.9	green glaze
231	Netherton Cross	183	1	Local				1	1.1	unglazed fragment
235	Netherton Cross	149	1	SWGW				1	1.8	reduced and abraded
239	Netherton Cross	152	5	Local				5	72.7	reduced interior with yellow/brown glaze on exterior - jug, same vessel as sf 200 & 254
241	Netherton Cross	149	1	SWGW	1				119	reduced core, everted rim from a plate or bowl, light green/brown glaze
242	Netherton Cross	182	1	SWGW				1	3.4	burnt
242	Netherton Cross	182	1	SPMRW				1	4.8	spall/fragment



SF	Area	Context	Number of pieces	Fabric	rim	base	handle	sherd	weight	Comment/Description
244	Netherton Cross	152	3	Local				3	54.8	reduced interior with yellow/brown glaze on exterior - jug, same vessel as sf 200 & 254
247	Netherton Cross	187	3	SWGW		1		2	15.1	reduced with green glaze
248	Netherton Cross	187	2	SPMRW		2			45.6	join, stacking scar on underside
252	Netherton Cross	187	1	SWGW				1	6.6	abraded green glaze
254	Netherton Cross	168	4	Local				4	171.1	All join, reduced interior with yellow/brown glaze on exterior - jug, same vessel as SF254
257	Netherton Cross	168	1	Local		1			20.7	splayed base, splash of glaze, 60mm in diameter
257	Netherton Cross	168	3	SWGW				3	13.6	reduced with white margin & green glaze
259	Netherton Cross	187	1	Local				1	3.4	undecorated
261	Netherton Cross	182	1	SWGW			1		38.6	ridged rod hande
262	Netherton Cross	168	1	Local				1	3.5	undecorated
266	Netherton Cross	168	3	SPMRW				3	13.2	reduced with green glaze
		unstrat	4	SPMRW				4	26.9	thick , reduced with green glaze
		unstrat	1	SPMOW				1	2.3	partially reduced with green glaze
158	Netherton Cross	unstrat	1	tile				1	62.2	orangle fabric, reduced, 33mm thick
	sample 30	143	3	modern	1			2	1.8	creamware plate with impressed decoration



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